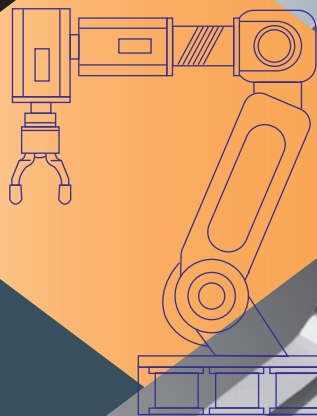
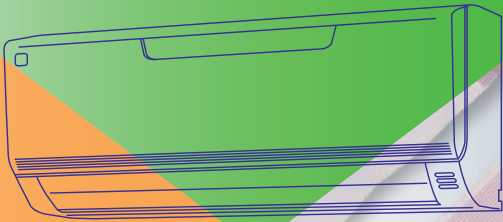
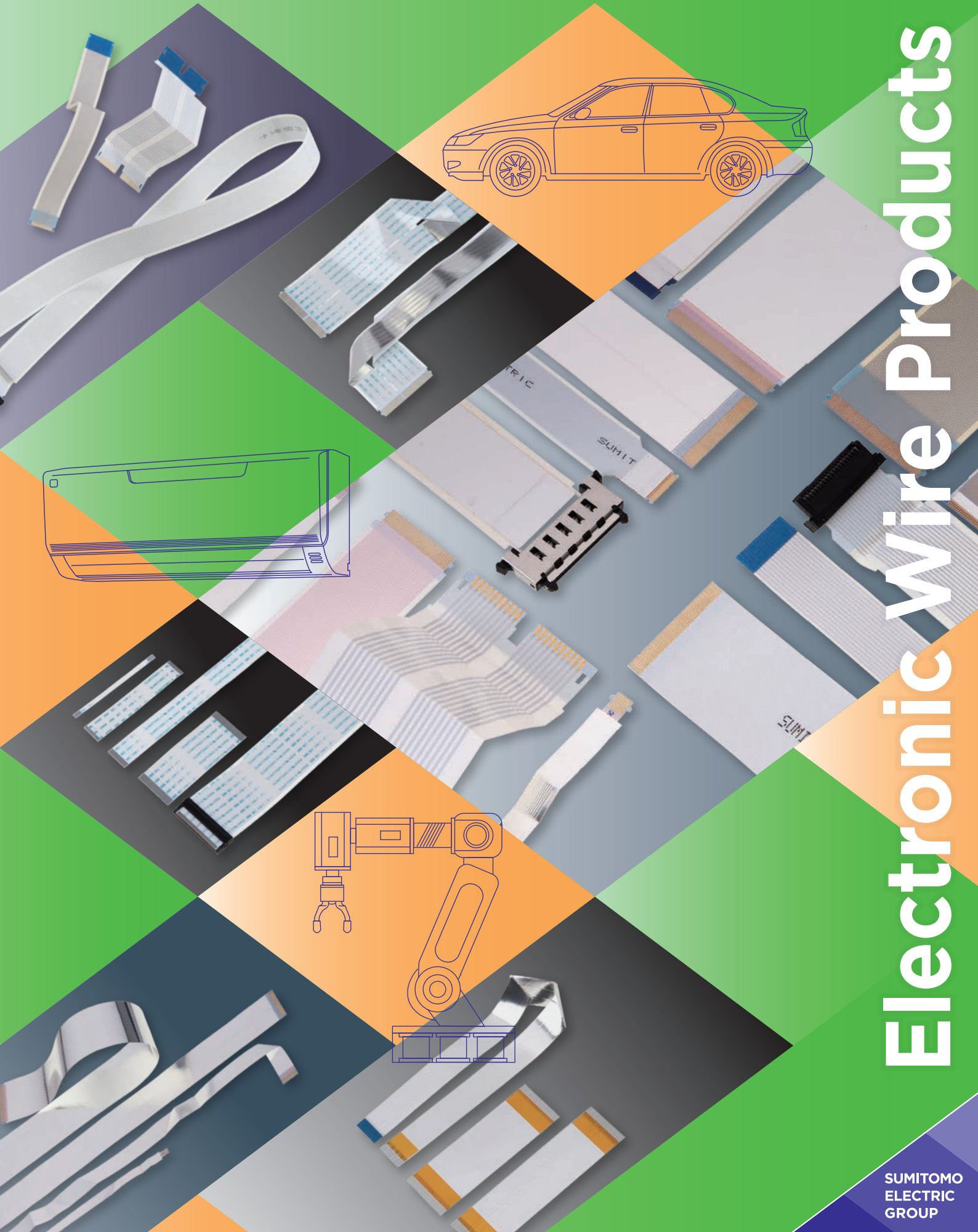


SUMI-CARD™ CATALOG



Electronic Wire Products



	UL	Pitch	Plating	Shield	High frequency	HF	Rating temperature	Rating voltage	
2	SUMI-CARD	2896	P0.5	Tin-plated			80°C	30V	
3		2896	P1.0	Tin-plated			80°C	30V	
4		2896	P1.25	Tin-plated			80°C	30V	
5		20624	P0.5	Tin-plated			80°C	60V	
6		20624	P1.0	Tin-plated			80°C	60V	
7		20624	P1.25	Tin-plated			80°C	60V	
8		20861	P0.5	Tin-plated			105°C	60V	
9		20861	P1.0	Tin-plated			105°C	60V	
10		20861	P1.25	Tin-plated			105°C	60V	
11		21147	P0.5	Tin-plated			HF	80°C	60V
12		21147	P1.0	Tin-plated			HF	80°C	60V
13		21147	P1.25	Tin-plated			HF	80°C	60V
14	Au-Plating SUMI-CARD	2896	P0.5	Au-Plating			80°C	30V	
15		2896	P1.0	Au-Plating			80°C	30V	
16		20861	P0.5	Au-Plating			105°C	60V	
17		20861	P1.0	Au-Plating			105°C	60V	
18		21147	P0.5	Au-Plating			HF	80°C	60V
19		21147	P1.0	Au-Plating			HF	80°C	60V
20		20706	P0.5	Au-Plating			HF	105°C	60V
21		20706	P1.0	Au-Plating			HF	105°C	60V
22	Shielded SUMI-CARD	2896	P0.5	Tin-plated	Shield		80°C	30V	
23		2896	P1.0	Tin-plated	Shield		80°C	30V	
24		2896	P1.25	Tin-plated	Shield		80°C	30V	
25		20861	P0.5	Tin-plated	Shield		105°C	60V	
26		20861	P1.0	Tin-plated	Shield		105°C	60V	
27		20861	P1.25	Tin-plated	Shield		105°C	60V	
28		21147	P0.5	Tin-plated	Shield		HF	80°C	60V
29		21147	P1.0	Tin-plated	Shield		HF	80°C	60V
30		21147	P1.25	Tin-plated	Shield		HF	80°C	60V
31	Au-Plating Shielded SUMI-CARD	2896	P0.5	Au-Plating	Shield		80°C	30V	
32		20861	P0.5	Au-Plating	Shield		105°C	60V	
33		21147	P0.5	Au-Plating	Shield		HF	80°C	60V
34	SUMI-CARD for High Frequency	20861	P0.5	Au-Plating	Shield	TYPE I	105°C	60V	
35		21147	P0.5	Au-Plating	Shield	TYPE I	HF	80°C	60V
36		20706	P0.5	Au-Plating	Shield	TYPE I	HF	105°C	60V
37		5442	P0.5	Au-Plating	Shield	TYPE II		80°C	60V
38		5544	P0.5	Au-Plating	Shield	TYPE III		80°C	60V
39	SUMI-CARD for High Temperature, High Humidity	5465	P0.5	Tin-plated			105°C	90V	
40		5462	P1.0	Tin-plated			105°C	300V	
41		5462	P1.25	Tin-plated			105°C	300V	
42		5465	P0.5	Au-Plating			105°C	90V	
43	150°C Rating SUMI-CARD	5556	P0.5	Tin-plated			150°C*	90V	
44		5556	P1.0	Tin-plated			150°C*	90V	
45		5556	P0.5	Au-Plating			150°C*	90V	
46		5556	P1.0	Au-Plating			150°C*	90V	
47	High Rating Halogen Free SUMI-CARD	5463	P0.5	Tin-plated			HF	105°C	150V
48		5461	P1.0	Tin-plated			HF	105°C	300V
49		5461	P1.25	Tin-plated			HF	105°C	300V
50		5463	P0.5	Au-Plating			HF	105°C	150V
51		5461	P1.0	Au-Plating			HF	105°C	300V

Electronic Wire Products

We contribute to society and the world by the production engineering of the electronic wire product.

Realize high-density wiring, and add "SUMI-CARD™" which laminated the insulation film to the straight angle conductor which displayed parallel to a superior slide characteristic, based on halogen-free correspondence, whisker correspondence such as a game console, a desk work machine, the PC thin it and is adopted as wiring materials suitable for slide part wiring widely. Based on materials technology realizing high-speed transmission, high heat resistance, go ahead through 5G base station, an in-vehicle display, the high speed inside wiring such as in-vehicle batteries and the correspondence to a vehicle installation CASE use and support development of the electronic equipment.

Page		
2		2896 P0.5
3		2896 P1.0
4		2896 P1.25
5		20624 P0.5
6		20624 P1.0
7	SUMI-CARD	20624 P1.25
8		20861 P0.5
9		20861 P1.0
10		20861 P1.25
11		21147 P0.5
12		21147 P1.0
13		21147 P1.25
14		2896 P0.5
15		2896 P1.0
16		20861 P0.5
17	Au-Plating SUMI-CARD	20861 P1.0
18		21147 P0.5
19		21147 P1.0
20		20706 P0.5
21		20706 P1.0
22		2896 P0.5
23		2896 P1.0
24		2896 P1.25
25	Shielded SUMI-CARD	20861 P0.5
26		20861 P1.0
27		20861 P1.25
28		21147 P0.5
29		21147 P1.0
30		21147 P1.25
31	Au-Plating Shielded SUMI-CARD	2896 P0.5
32		20861 P0.5
33		21147 P0.5
34		20861 P0.5 (TYPE I)
35	SUMI-CARD for High Frequency	21147 P0.5 (TYPE I)
36		20706 P0.5 (TYPE I)
37		5442 P0.5 (TYPE II)
38		5544 P0.5 (TYPE III)
39	SUMI-CARD for High Temperature, High Humidity	5465 P0.5
40		5462 P1.0
41		5462 P1.25
42		5465 P0.5
43	150°C Rating SUMI-CARD	5556 P0.5
44		5556 P1.0
45		5556 P0.5 (AUP)
46		5556 P1.0 (AUP)
47	High Rating Halogen Free SUMI-CARD	5463 P0.5
48		5461 P1.0
49		5461 P1.25
50		5463 P0.5 (AUP)
51		5461 P1.0 (AUP)

SUMI-CARD	2896 P0.5	
	2896 P1.0	
	2896 P1.25	
	20624 P0.5	
	20624 P1.0	
	20624 P1.25	
	20861 P0.5	
	20861 P1.0	
	20861 P1.25	
	21147 P0.5	
	21147 P1.0	
21147 P1.25		

Au-Plating SUMI-CARD	2896 P0.5	
	2896 P1.0	
	20861 P0.5	
	20861 P1.0	
	21147 P0.5	
	21147 P1.0	
	20706 P0.5	
	20706 P1.0	

Shielded SUMI-CARD	2896 P0.5	
	2896 P1.0	
	2896 P1.25	
	20861 P0.5	
	20861 P1.0	
	20861 P1.25	
	21147 P0.5	
	21147 P1.0	
	21147 P1.25	

Au-Plating Shielded SUMI-CARD	2896 P0.5	
	20861 P0.5	
	21147 P0.5	

SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)	
	21147 P0.5 (TYPE I)	
	20706 P0.5 (TYPE I)	
	5442 P0.5 (TYPE II)	
	5544 P0.5 (TYPE III)	

SUMI-CARD for High Temperature, High Humidity	5465 P0.5	
	5462 P1.0	
	5462 P1.25	
	5465 P0.5	

150°C Rating SUMI-CARD	5556 P0.5	
	5556 P1.0	
	5556 P0.5 (AUP)	
	5556 P1.0 (AUP)	

High Rating Halogen Free SUMI-CARD	5463 P0.5	
	5461 P1.0	
	5461 P1.25	
	5463 P0.5 (AUP)	
	5461 P1.0 (AUP)	

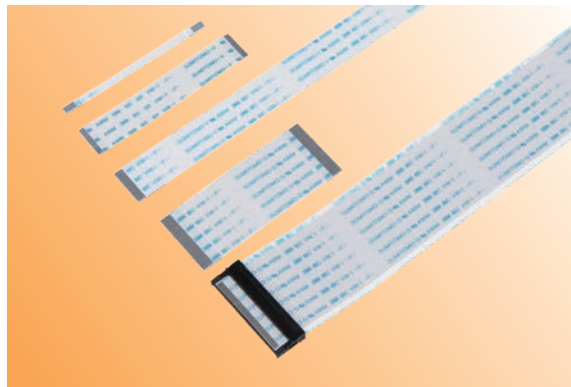
SUMI-CARD™

ELECTRONIC WIRE PRODUCTS

SUMI-CARD™

UL2896·P0.5 Tin plated

Description	Flat cable of the tin plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass

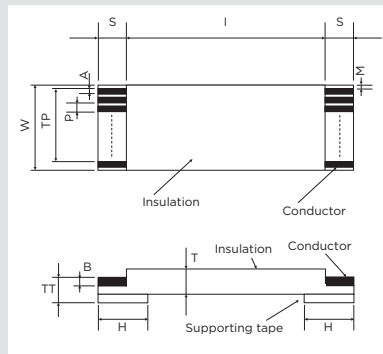


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.11
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



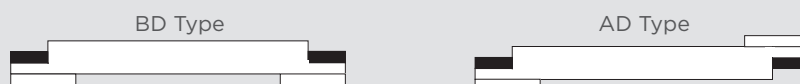
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$SML2CD-NXI-\square X \square (BL)-P0.5-S \square -N(35) UL2896$
 Number of conductors
 Processing form
 Strip length
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

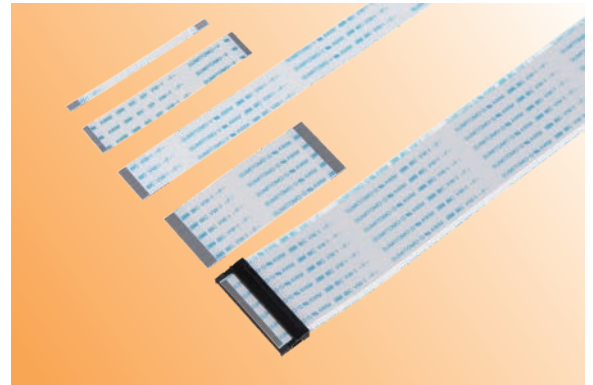
This specification is subject to change without a prior announcement.

SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
2896 P0.5	
2896 P1.0	
20861 P0.5	
Au-Plating SUMI-CARD	20861 P1.0
21147 P0.5	
21147 P1.0	
20706 P0.5	
20706 P1.0	
2896 P0.5	
2896 P1.0	
2896 P1.25	
Shielded SUMI-CARD	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	
Au-Plating Shielded SUMI-CARD	2896 P0.5
20861 P0.5	
21147 P0.5	
20861 P0.5 (TYPE I)	
21147 P0.5 (TYPE I)	
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
5442 P0.5 (TYPE II)	
5544 P0.5 (TYPE III)	
5465 P0.5	
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
5462 P1.25	
5465 P0.5	
5556 P0.5	
150°C Rating SUMI-CARD	5556 P1.0
5556 P0.5 (AUP)	
5556 P1.0 (AUP)	
5463 P0.5	
High Rating Halogen Free SUMI-CARD	5461 P1.0
5461 P1.25	
5463 P0.5 (AUP)	
5461 P1.0 (AUP)	

SUMI-CARD™

UL2896·P1.0 Tin plated

- Description** Flat cable of the tin plating type for P1.0 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass



SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

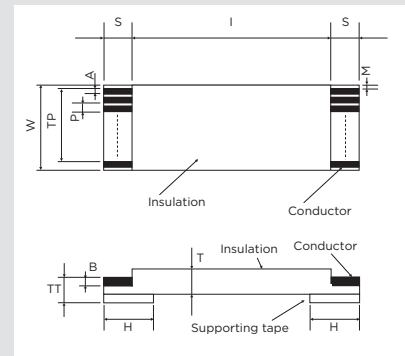
- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.11 (Thin type) or 0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



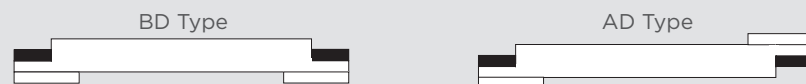
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C:30V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI-□X□(BL)-P1.0-S□-HF-N(35) or N UL2896
 \swarrow Insulation length
 \swarrow Supporting tape length

PROCESSING FORM



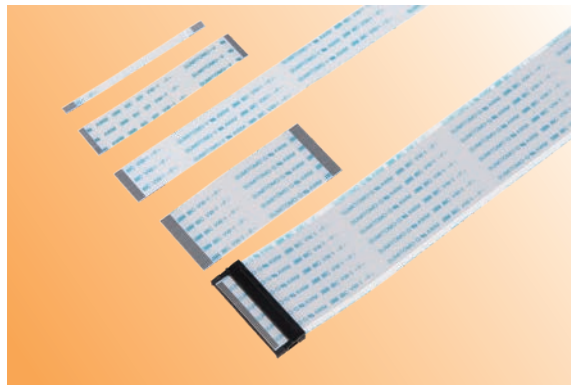
REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD™

UL2896·P1.25 Tin plated

Description	Flat cable of the tin plating type for P1.25 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass



ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

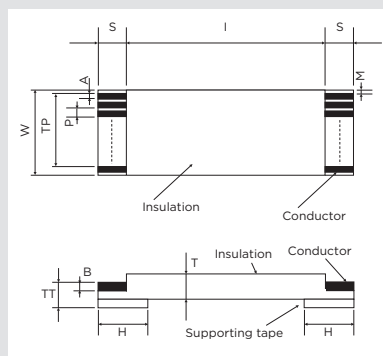
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.85
T	Cable thickness	0.11 (Thin type) or 0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



TYPICAL PROPERTIES

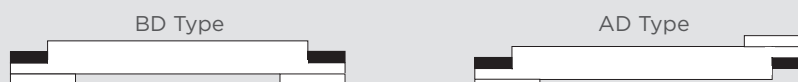
UL STYLE	UL2896 (80°C·30V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$$\text{SML2CD-NXI-} \boxed{\text{Insulation length}} \times \boxed{\text{Supporting tape length}} \text{(BL)-P1.25-S} \boxed{\text{Strip length}} \text{-N(35) or N UL2896}$$

Number of conductors
 Processing form
 Strip length
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	20861 P1.25
21147 P0.5	
21147 P1.0	
20706 P0.5	
20706 P1.0	

Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	

Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
20861 P0.5 (TYPE I)	
21147 P0.5 (TYPE I)	
20706 P0.5 (TYPE I)	
5442 P0.5 (TYPE II)	
5544 P0.5 (TYPE III)	

SUMI-CARD for High Frequency	5465 P0.5
	5462 P1.0
	5462 P1.25
5465 P0.5	
5462 P1.0	
5462 P1.25	
5465 P0.5	

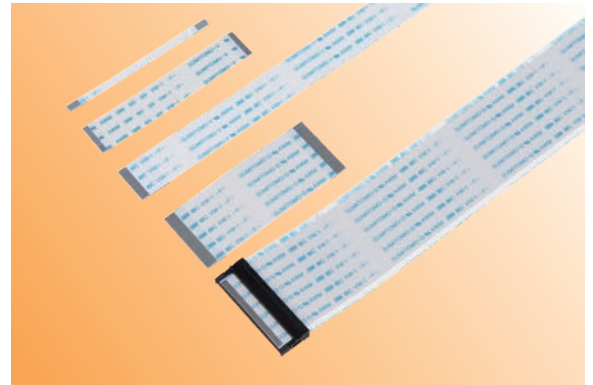
SUMI-CARD for High Temperature, High Humidity	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
5556 P1.0 (AUP)	

High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD™

UL20624·P0.5 Tin plated

- Description** Flat cable of the tin plating type for P0.5 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass



SUMI-CARD

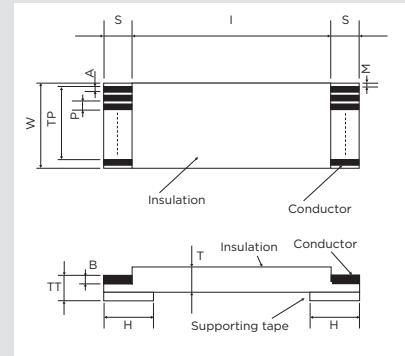
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



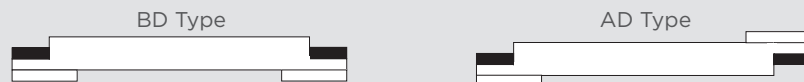
TYPICAL PROPERTIES

UL STYLE	UL20624 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2CD-NXI- X (BL)-P0.5-S -N(35) UL20624
 Insulation length ↑ ↑ Supporting tape length

PROCESSING FORM



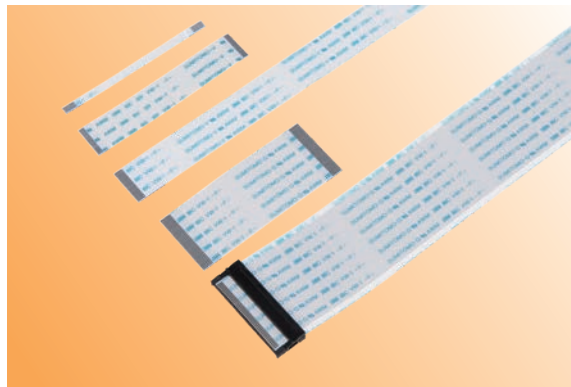
REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD™

UL20624·P1.0 Tin plated

Description	Flat cable of the tin plating type for P1.0 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass

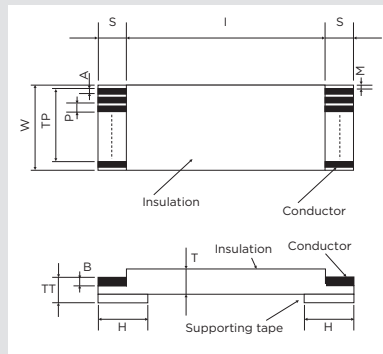


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



TYPICAL PROPERTIES

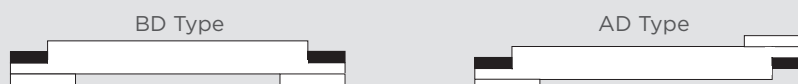
UL STYLE	UL20624 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$$\text{SML2CD-NXI-} \boxed{\text{Insulation length}} \times \boxed{\text{Supporting tape length}} \text{(BL)-P1.0-S} \boxed{\text{Strip length}} \text{-HF-N(35) or N UL20624}$$

Number of conductors
 Processing form
 Strip length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

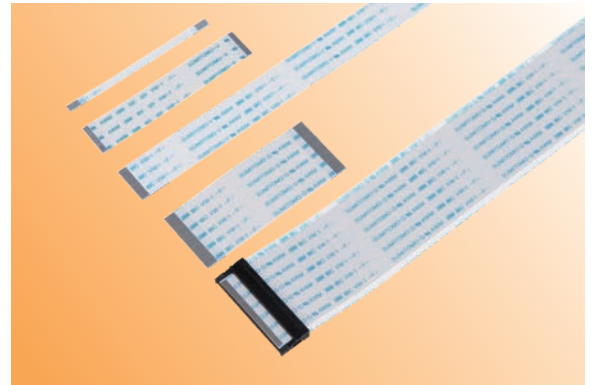
ELECTRONIC WIRE PRODUCTS SUMI-CARD™

SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
Shielded SUMI-CARD	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
Au-Plating Shielded SUMI-CARD	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
SUMI-CARD for High Frequency	21147 P1.0
	21147 P1.25
	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Temperature, High Humidity	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
150°C Rating SUMI-CARD	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
High Rating Halogen Free SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
	5461 P1.0
SUMI-CARD	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD™

UL20624·P1.25 Tin plated

- Description** Flat cable of the tin plating type for P1.25 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass



SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

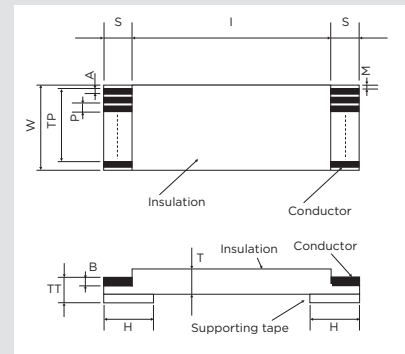
- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.85
T	Cable thickness	0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



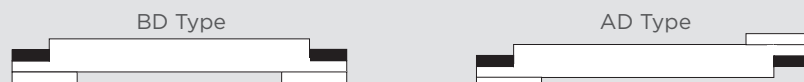
TYPICAL PROPERTIES

UL STYLE	UL20624 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI- \square X \square (BL)-P1.25-S \square -N(35) or N UL20624
 \uparrow Insulation length \uparrow Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD™

UL20861·P0.5 Tin plated

Description	Flat cable of the tin plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass

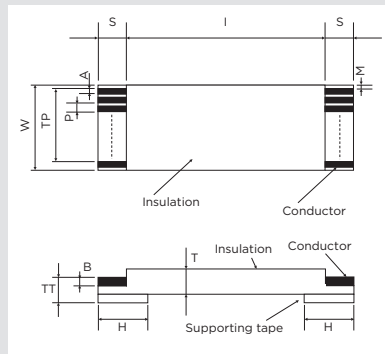


MATERIAL

	Item	Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



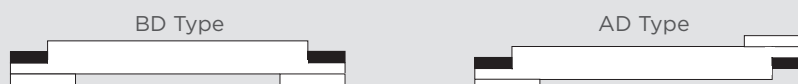
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C-60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$SML2CD-NXI-\square \times \square (BL)-P0.5-S\square-N(35) UL20861$
 Number of conductors
 Processing form
 Strip length
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

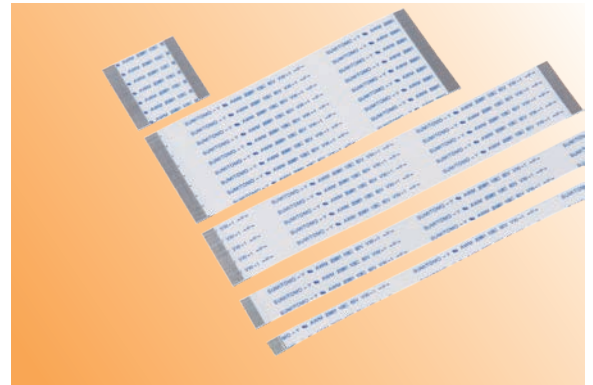
This specification is subject to change without a prior announcement.

SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
2896 P0.5	
2896 P1.0	
20861 P0.5	
Au-Plating SUMI-CARD	20861 P1.0
21147 P0.5	
21147 P1.0	
20706 P0.5	
20706 P1.0	
2896 P0.5	
2896 P1.0	
2896 P1.25	
Shielded SUMI-CARD	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	
Au-Plating Shielded SUMI-CARD	2896 P0.5
20861 P0.5	
21147 P0.5	
20861 P0.5 (TYPE I)	
21147 P0.5 (TYPE I)	
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
5442 P0.5 (TYPE II)	
5544 P0.5 (TYPE III)	
5465 P0.5	
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
5462 P1.25	
5465 P0.5	
5556 P0.5	
150°C Rating SUMI-CARD	5556 P1.0
5556 P0.5 (AUP)	
5556 P1.0 (AUP)	
5463 P0.5	
High Rating Halogen Free SUMI-CARD	5461 P1.0
5461 P1.25	
5463 P0.5 (AUP)	
5461 P1.0 (AUP)	

SUMI-CARD™

UL20861-P1.0 Tin plated

- Description** Flat cable of the tin plating type for P1.0 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass



SUMI-CARD

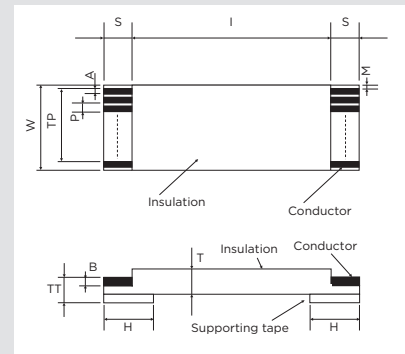
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	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.14 or 0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



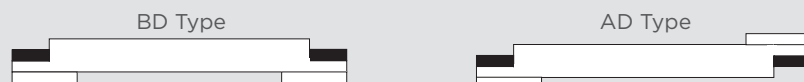
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI-□X□(BL)-P1.0-S□-HF-N(35) or N UL20861
 \swarrow Insulation length
 \swarrow Supporting tape length

PROCESSING FORM



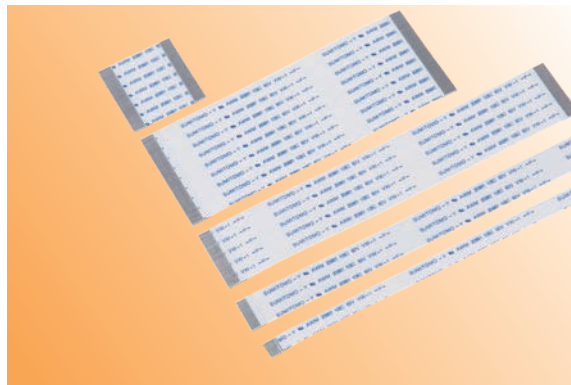
REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD™

UL20861·P1.25 Tin plated

Description	Flat cable of the tin plating type for P1.25 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass



ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

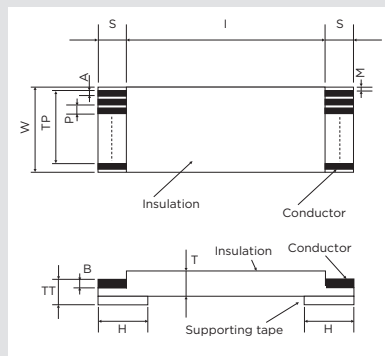
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.85
T	Cable thickness	0.14 or 0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



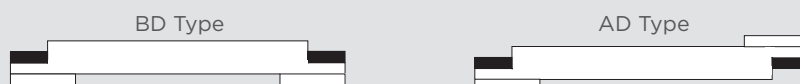
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C-60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
 SML2CD-NXI- \square X \square (BL)-P1.25-S \square -N(35) or N UL20861
 \swarrow Insulation length \swarrow Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
21147 P1.0	
20706 P0.5	
20706 P1.0	

Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	

Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5

SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
5544 P0.5 (TYPE III)	

SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5

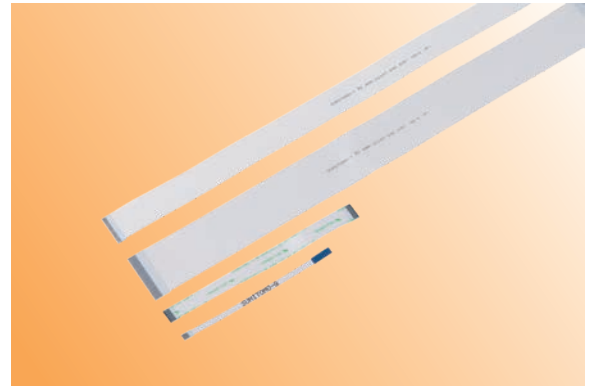
150°C Rating SUMI-CARD	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD™

UL21147·P0.5 Tin plated

- Description** Flat cable of the tin plating type for P0.5 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass, Halogen-free



SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

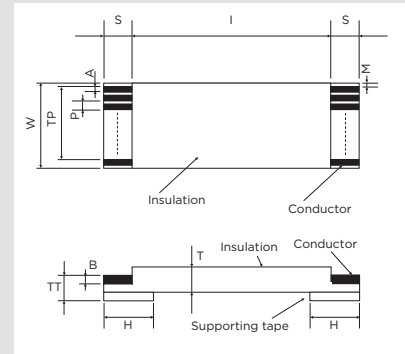
- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3 or 0.05×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

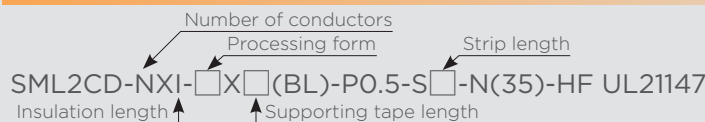
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.12 or 0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035 or 0.5



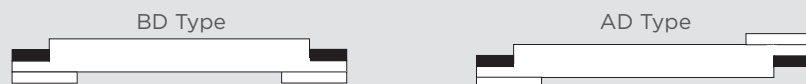
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD™

UL21147·P1.0 Tin plated

Description	Flat cable of the tin plating type for P1.0 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Thin and flexible and lightweight, VW-1 pass

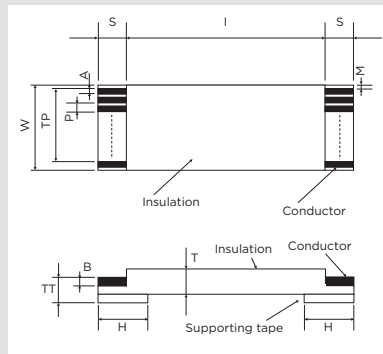


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.12 or 0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3, 4
H	Supporting tape length	Std. 6, 8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



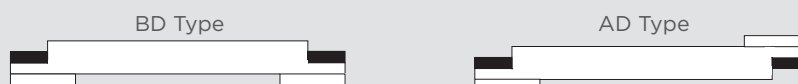
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$$\text{SML2CD-NXI-} \left[\begin{array}{c} \text{Number of conductors} \\ \text{Processing form} \end{array} \right] \times \left[\begin{array}{c} \text{Strip length} \\ \text{Supporting tape length} \end{array} \right] \text{(BL)-P1.0-S} \left[\begin{array}{c} \text{Insulation length} \\ \text{Insulation length} \end{array} \right] \text{-N(35)-HF or N-HF UL21147}$$

PROCESSING FORM



REMARKS

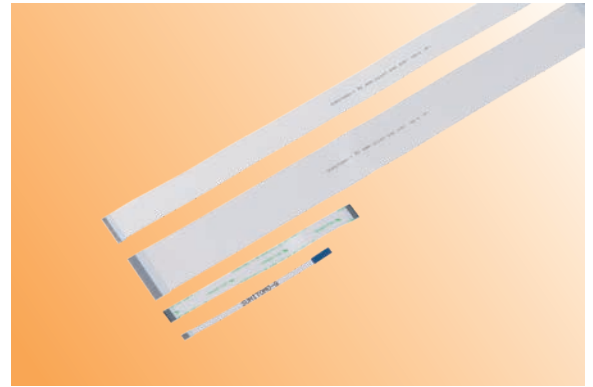
This specification is subject to change without a prior announcement.

SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
2896 P0.5	
2896 P1.0	
20861 P0.5	
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD™

UL21147·P1.25 Tin plated

- Description** Flat cable of the tin plating type for P1.25 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Thin and flexible and lightweight, VW-1 pass



SUMI-CARD

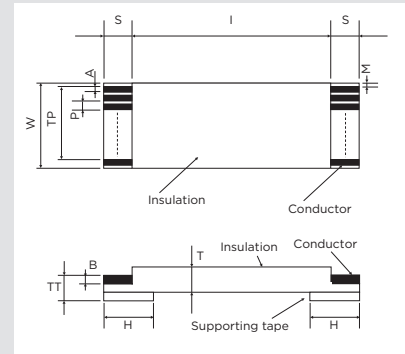
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	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.85
T	Cable thickness	0.12 or 0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



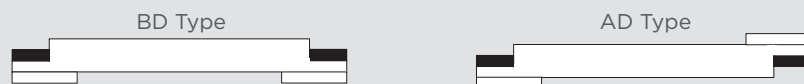
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI- \square X \square (BL)-P1.25-S \square -N(35)-HF or N-HF UL21147
 \uparrow Insulation length \uparrow Supporting tape length

PROCESSING FORM



REMARKS

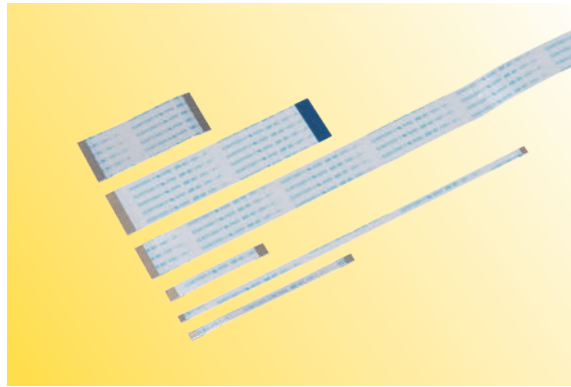
This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

UL2896·P0.5 Au-Plating

Description	Flexible flat cable of the Au-plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Anti-Whisker (Au-plating type)

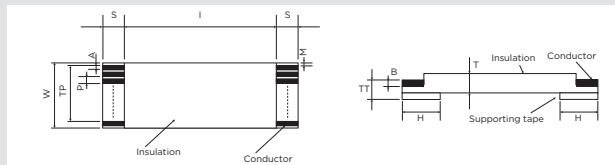


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.11
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3μm		Min. 0.8μm	Min. 2.0μm	Min. 0.8μm
Au-plating thickness	Min. 0.05μm	Min. 0.15μm	Min. 0.08μm	Min. 0.08μm	Min. 0.03μm

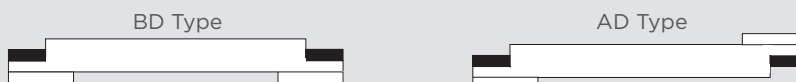
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 1,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$\begin{matrix} \swarrow & \text{Number of conductors} \\ \text{SML2CD-NXI-} & \square & \times & \square & \text{(BL)-P0.5-S} & \square & \text{-N(35)-AUP or AUPT or AUP3 or AUP3T or AUP3F UL2896} \\ \nwarrow & \text{Processing form} & \nearrow & \text{Strip length} \\ \uparrow & \text{Insulation length} & \uparrow & \text{Supporting tape length} \end{matrix}$

PROCESSING FORM



REMARKS

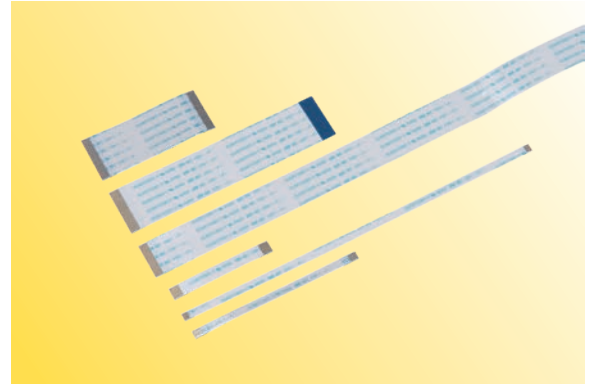
This specification is subject to change without a prior announcement.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating SUMI-CARD

UL2896·P1.0 Au-Plating

- Description Flat cable of the Au-plating type for P1.0 connectors
- Application FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features Anti-Whisker (Au-plating type)



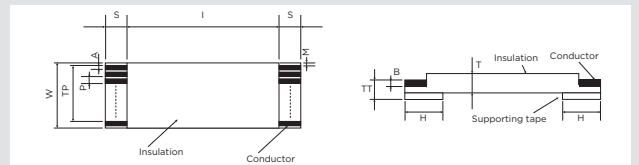
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
	21147 P1.0
20706 P0.5	
20706 P1.0	
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
SUMI-CARD for High Temperature, High Humidity	5544 P0.5 (TYPE III)
	5465 P0.5
150°C Rating SUMI-CARD	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
High Rating Halogen Free SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
	5461 P1.0
5461 P1.25	
5463 P0.5 (AUP)	
5461 P1.0 (AUP)	

■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

■ CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.11
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035



Construction	Nickel plating for whole length of conductors		Nickel plating only for terminal of conductors		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Conductor	Nickel plated copper		Copper		
Ni-plating thickness	Min. 0.3µm		Min. 0.8µm	Min. 2.0µm	Min. 0.8µm
Au-plating thickness	Min. 0.05µm	Min. 0.15µm	Min. 0.08µm	Min. 0.08µm	Min. 0.03µm

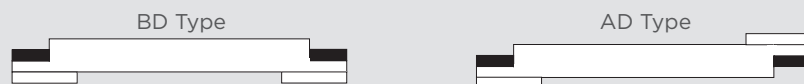
■ TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
 SML2CD-NXI- \square X \square (BL)-P1.0-S \square -N(35)-AUP or AUPT or AUP3 or AUP3T or AUP3F UL2896
 \nwarrow Insulation length \nwarrow Supporting tape length

■ PROCESSING FORM



■ REMARKS

This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD

UL20861·P0.5 Au-Plating

Description	Flexible flat cable of the Au-plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Anti-Whisker (Au-plating type)

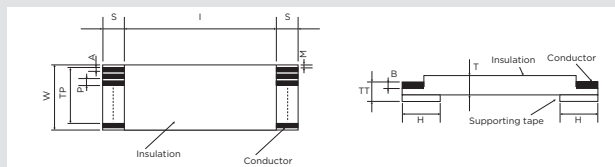


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3μm		Min. 0.8μm	Min. 2.0μm	Min. 0.8μm
Au-plating thickness	Min. 0.05μm	Min. 0.15μm	Min. 0.08μm	Min. 0.08μm	Min. 0.03μm

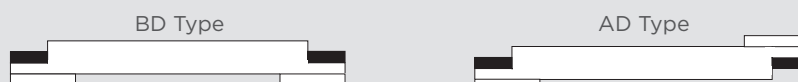
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C-60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 1,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$\xrightarrow{\text{Number of conductors}}$
 $\xrightarrow{\text{Processing form}}$ SML2CD-NXI- \square X \square (BL)-P0.5-S \square -N(35)-AUP or AUPT or AUP3 or AUP3T or AUP3F UL20861
 $\xrightarrow{\text{Insulation length}}$ $\xrightarrow{\text{Supporting tape length}}$

PROCESSING FORM



REMARKS

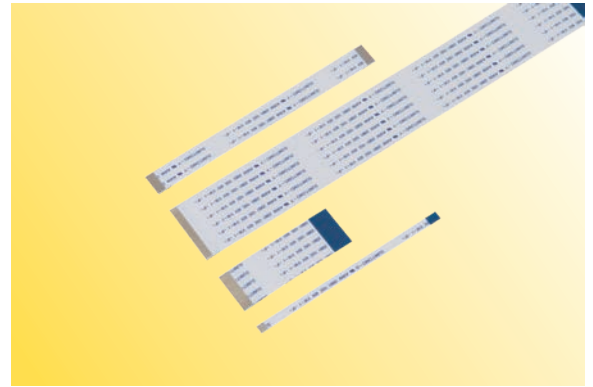
This specification is subject to change without a prior announcement.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
150°C Rating SUMI-CARD	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating SUMI-CARD

UL20861-P1.0 Au-Plating

- Description** Flat cable of the Au-plating type for P1.0 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Anti-Whisker (Au-plating type)



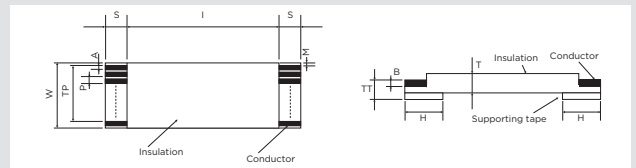
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
	21147 P1.0
20706 P0.5	
20706 P1.0	
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
SUMI-CARD for High Temperature, High Humidity	5544 P0.5 (TYPE III)
	5465 P0.5
	5462 P1.0
150°C Rating SUMI-CARD	5462 P1.25
	5465 P0.5
	5556 P0.5
	5556 P1.0
High Rating Halogen Free SUMI-CARD	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
	5461 P1.0
5461 P1.25	
5463 P0.5 (AUP)	
5461 P1.0 (AUP)	

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.05×0.7
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.05

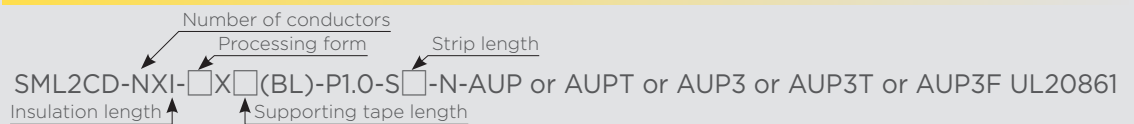


Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3µm		Min. 0.8µm	Min. 2.0µm	Min. 0.8µm
Au-plating thickness	Min. 0.05µm	Min. 0.15µm	Min. 0.08µm	Min. 0.08µm	Min. 0.03µm

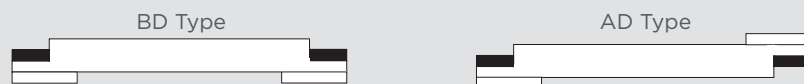
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD

UL21147·P0.5 Au-Plating

Description	Flexible flat cable of the Au-plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Anti-Whisker (Au-plating type), Halogen-free

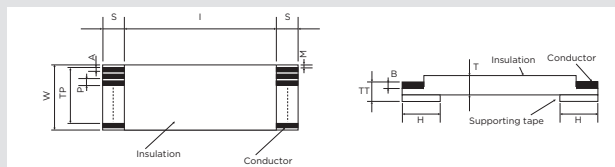


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3 or 0.05×0.3
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.12
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3μm		Min. 0.8μm	Min. 2.0μm	Min. 0.8μm
Au-plating thickness	Min. 0.05μm	Min. 0.15μm	Min. 0.08μm	Min. 0.08μm	Min. 0.03μm

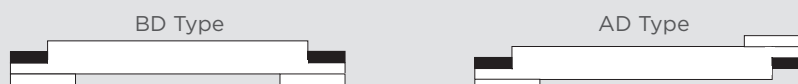
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 1,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$$\text{SML2CD-NX1-} \left[\begin{array}{c} \text{Number of conductors} \\ \text{Processing form} \end{array} \right] \left[\begin{array}{c} \text{Insulation length} \\ \text{Supporting tape length} \end{array} \right] \text{(BL)-P0.5-S} \left[\begin{array}{c} \text{Strip length} \\ \text{N(35)} \end{array} \right] \text{-AUP or AUPT or AUP3 or AUP3T or AUP3F-HF UL21147}$$

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
150°C Rating SUMI-CARD	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating SUMI-CARD

UL21147·P1.0 Au-Plating

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

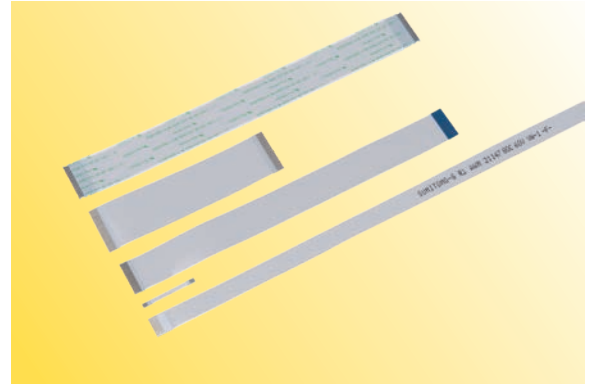
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description** Flat cable of the Au-plating type for P1.0 connectors
- Application** FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features** Anti-Whisker (Au-plating type), Halogen-free

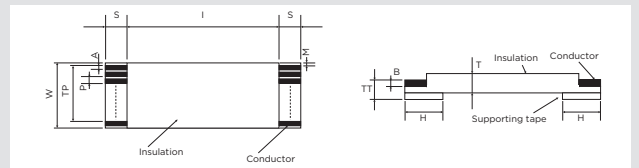


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.12 or 0.14
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05

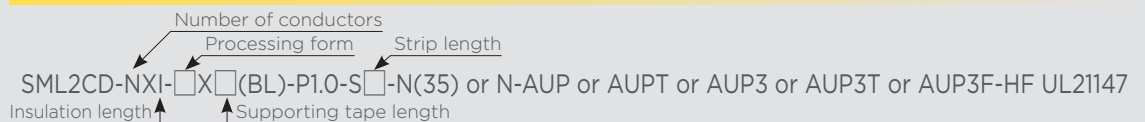


Construction	Nickel plating for whole length of conductors		Nickel plating only for terminal of conductors		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Conductor	Nickel plated copper		Copper		
Ni-plating thickness	Min. 0.3µm		Min. 0.8µm	Min. 2.0µm	Min. 0.8µm
Au-plating thickness	Min. 0.05µm	Min. 0.15µm	Min. 0.08µm	Min. 0.08µm	Min. 0.03µm

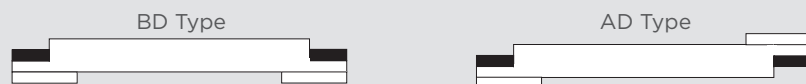
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

Au-Plating SUMI-CARD

UL20706·P0.5 Au-Plating

Description	Flexible flat cable of the Au-plating type for P0.5 connectors
Application	FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
Features	Anti-Whisker (Au-plating type), Halogen-free

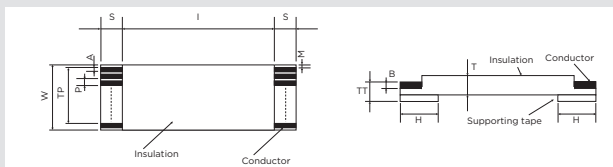


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3 or 0.05×0.3
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.11
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3μm		Min. 0.8μm	Min. 2.0μm	Min. 0.8μm
Au-plating thickness	Min. 0.05μm	Min. 0.15μm	Min. 0.08μm	Min. 0.08μm	Min. 0.03μm

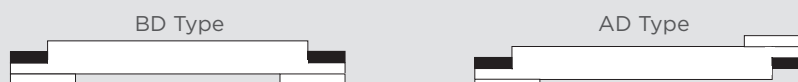
TYPICAL PROPERTIES

UL STYLE	UL20706 (105°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 1,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
Processing form
Strip length
SML2CD-NXI-X(BL)-P0.5-S-N(35)-AUP or AUPT or AUP3 or AUP3T or AUP3F-HF UL20706
Insulation length
Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating SUMI-CARD

UL20706·P1.0 Au-Plating

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

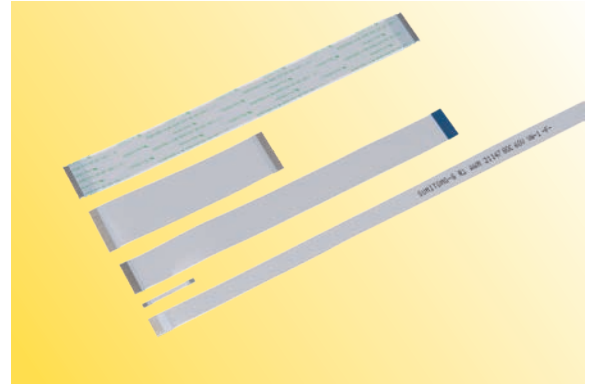
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description Flat cable of the Au-plating type for P1.0 connectors
- Application FPD, Optical drive, Printer, Scanner, Game machine, Notebook PC, and so on.
- Features Anti-Whisker (Au-plating type), Halogen-free

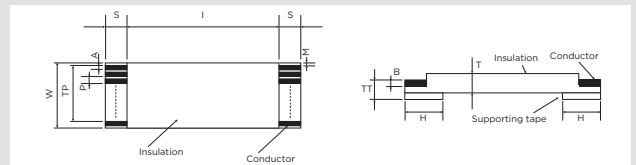


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7
	Plating	AUP type : Nickel plating (whole) + Au plating (terminal) AUP3 type : Annealed copper (whole) + Nickel plating (terminal) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

■ CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.65
T	Cable thickness	0.11
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035

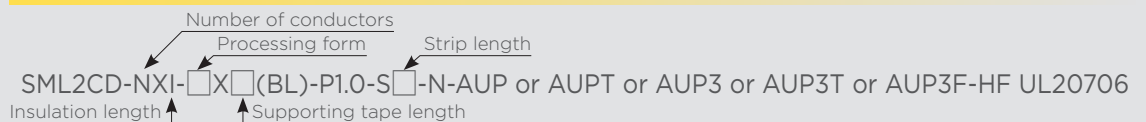


Construction	Nickel plated copper		Copper		
	AUP	AUPT	AUP3	AUP3T	AUP3F
Ni-plating thickness	Min. 0.3µm		Min. 0.8µm	Min. 2.0µm	Min. 0.8µm
Au-plating thickness	Min. 0.05µm	Min. 0.15µm	Min. 0.08µm	Min. 0.08µm	Min. 0.03µm

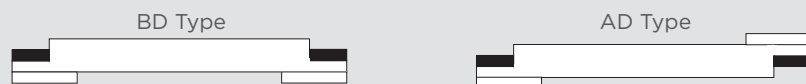
■ TYPICAL PROPERTIES

UL STYLE	UL20706 (105°C-60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ-m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE



■ PROCESSING FORM



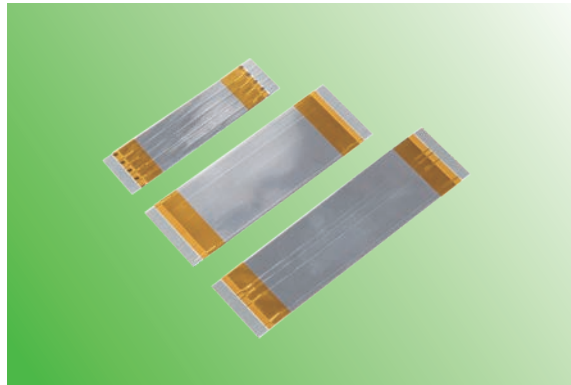
■ REMARKS

This specification is subject to change without a prior announcement.

Shielded SUMI-CARD

UL2896·P0.5 Tin plated

Description	Shielded flexible flat cable
Application	Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
Features	Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

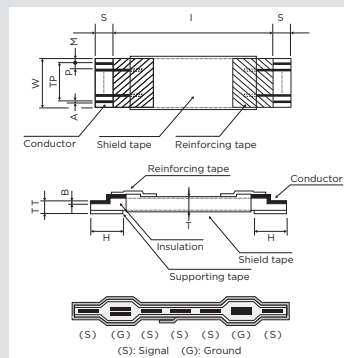


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.3
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue
Shield tape	PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape	Polymide (outside) + Adhesive (inside)

CONSTRUCTION

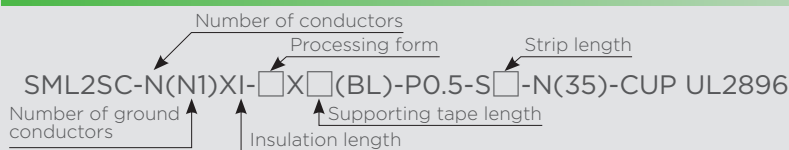
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.26 (Thin type: 0.20)
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And it can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



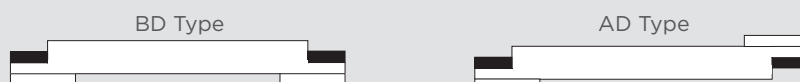
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Shielded SUMI-CARD

UL2896·P1.0 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

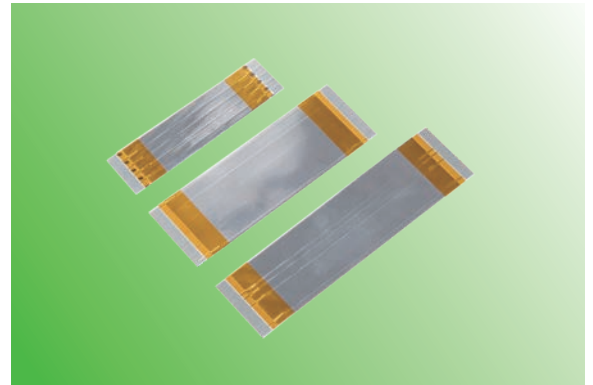
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description Shielded flexible flat cable
- Application Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

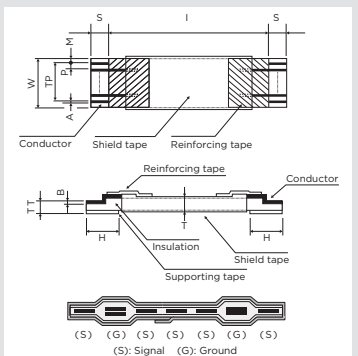


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape		Polymide (outside) + Adhesive (inside)

■ CONSTRUCTION

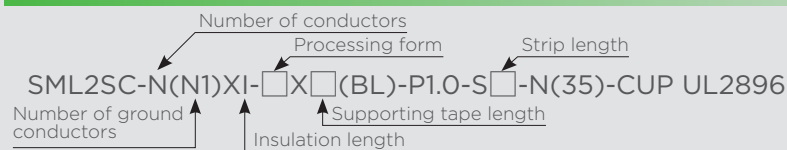
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.26 (Thin type: 0.20)
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.7
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And It can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



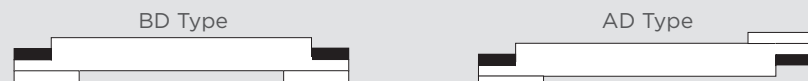
■ TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 850Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE



■ PROCESSING FORM



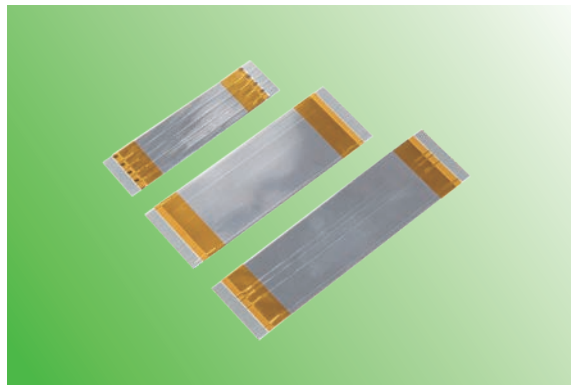
■ REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

Shielded SUMI-CARD

UL2896·P1.25 Tin plated

- Description** Shielded flexible flat cable
- Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features** Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

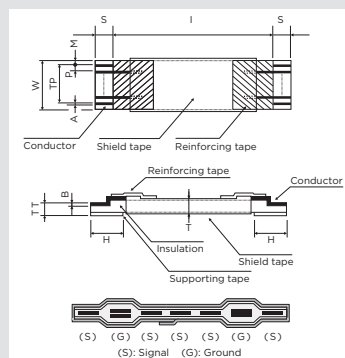


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.8
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue
Shield tape	PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape	Polymide (outside) + Adhesive (inside)

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.85
T	Cable thickness	0.26 (Thin type: 0.20)
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.8
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And it can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



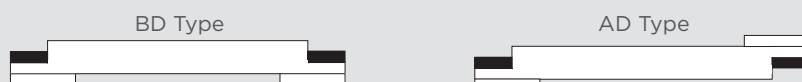
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 750Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2SC-N(N1)XI-□X□(BL)-P1.25-S□-N(35)-CUP UL2896
 Number of ground conductors
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

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 The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Shielded SUMI-CARD

UL20861-PO.5 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

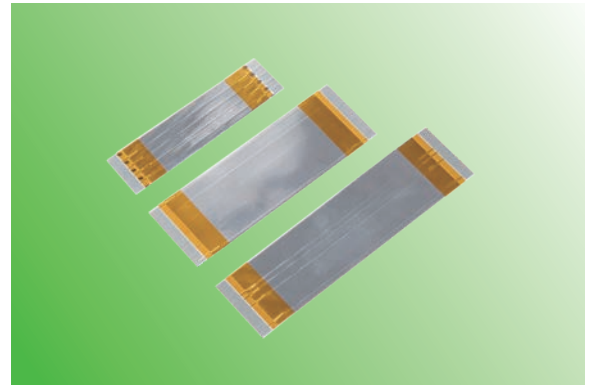
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description Shielded flexible flat cable
- Application Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

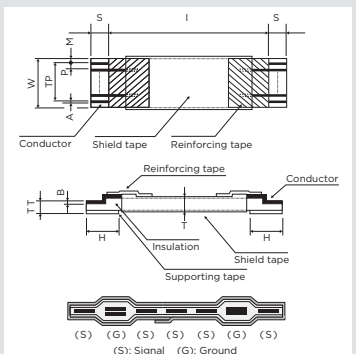


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape		Polymide (outside) + Adhesive (inside)

CONSTRUCTION

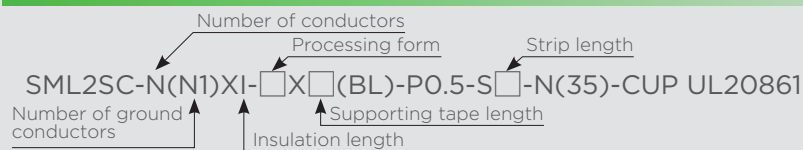
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.24
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And It can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



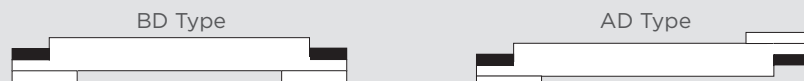
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C-60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ-m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V-1min No Dielectric Breakdown Between conductor and shield AC250V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



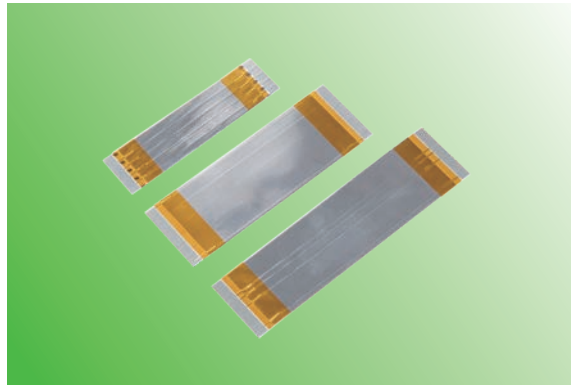
REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

Shielded SUMI-CARD

UL20861·P1.0 Tin plated

- Description** Shielded flexible flat cable
- Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features** Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

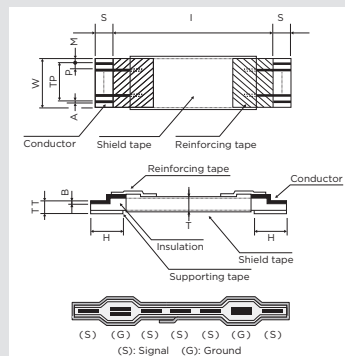


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.7
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue
Shield tape	PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape	Polymide (outside) + Adhesive (inside)

CONSTRUCTION

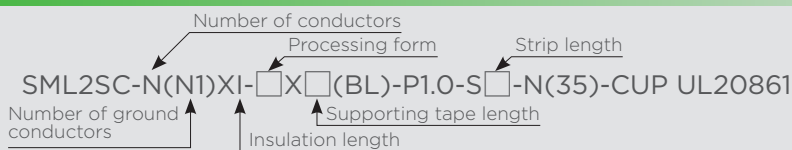
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.24
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And it can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



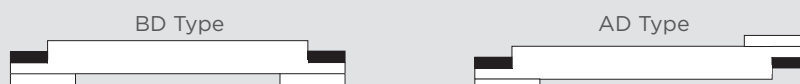
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 850Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Shielded SUMI-CARD

UL20861-P1.25 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

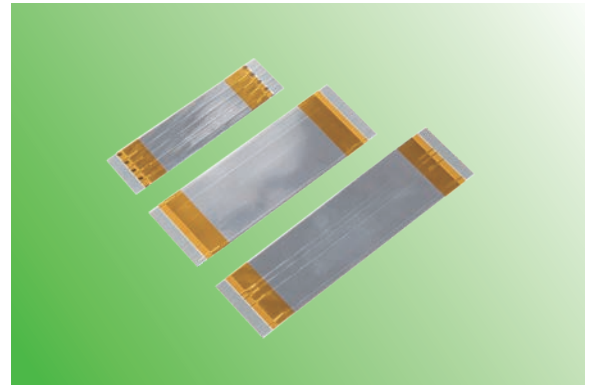
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description Shielded flexible flat cable
- Application Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

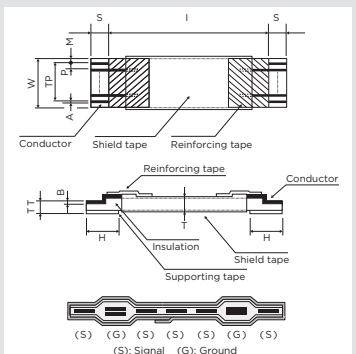


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape		Polymide (outside) + Adhesive (inside)

■ CONSTRUCTION

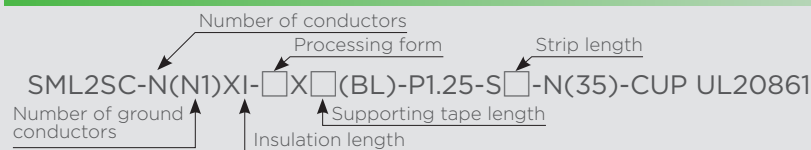
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.85
T	Cable thickness	0.24
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.8
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And It can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



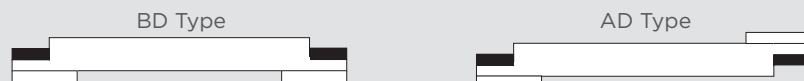
■ TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C-60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 750Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ-m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V-1min No Dielectric Breakdown Between conductor and shield AC250V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE



■ PROCESSING FORM



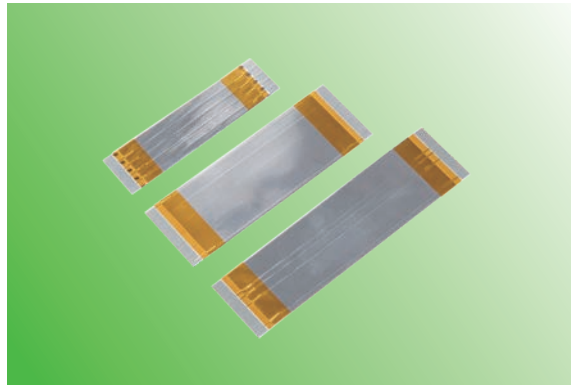
■ REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

Shielded SUMI-CARD

UL21147·P0.5 Tin plated

- Description** Shielded flexible flat cable
- Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features** Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

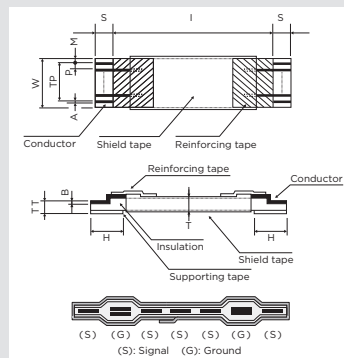


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.3
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
	Supporting tape: Polyester
Supporting tape	Color: Blue
	Shield tape: PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape	Polymide (outside) + Adhesive (inside)

CONSTRUCTION

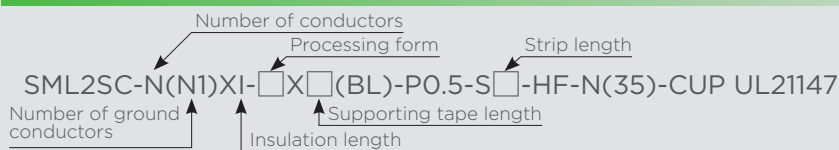
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.22
TT	Terminal thickness	0.2
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And it can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



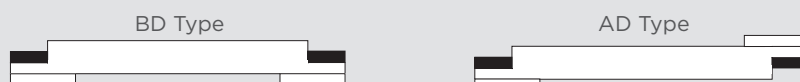
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

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The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

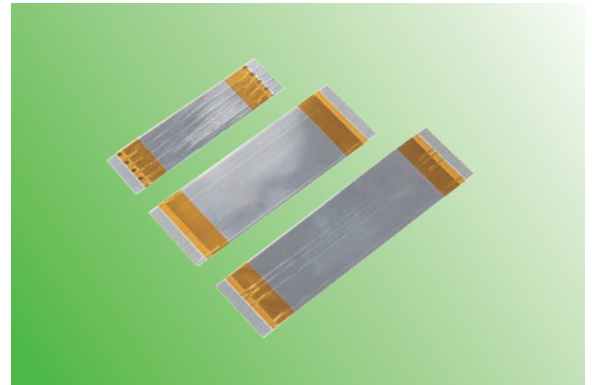
ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Shielded SUMI-CARD

UL21147·P1.0 Tin plated

- Description Shielded flexible flat cable
- Application Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use



SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	

Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
21147 P1.0	
20706 P0.5	
20706 P1.0	

Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	

Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5

SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
5544 P0.5 (TYPE III)	

SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
5465 P0.5	

150°C Rating SUMI-CARD	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)

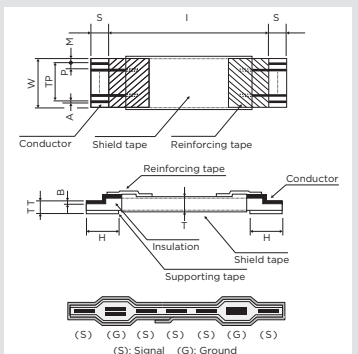
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
5461 P1.0 (AUP)	

■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape		Polymide (outside) + Adhesive (inside)

■ CONSTRUCTION

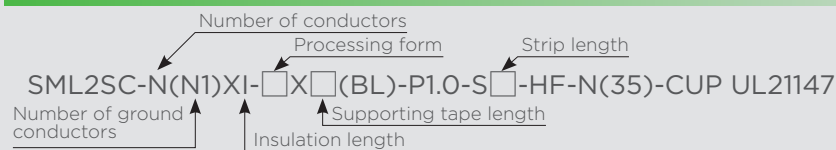
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.22
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.7
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And It can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



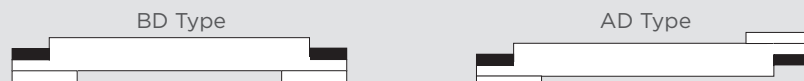
■ TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 850Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE



■ PROCESSING FORM



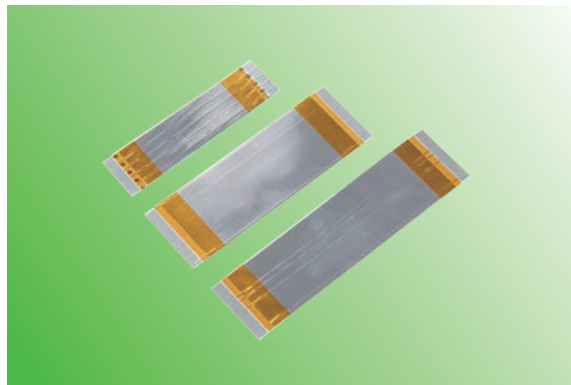
■ REMARKS

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The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

Shielded SUMI-CARD

UL21147·P1.25 Tin plated

- Description** Shielded flexible flat cable
- Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures.
- Features** Shield structure for measure against EMI, High bending characteristic which is suitable for sliding use

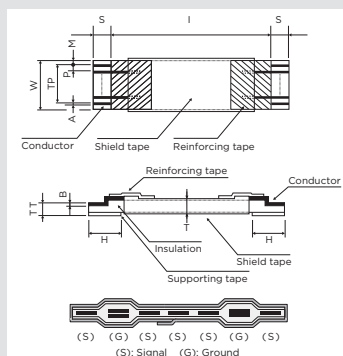


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.8
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue
Shield tape	PET (Outer) + Metallic Layer + Copper Coated with Silver (Inner)
Reinforcing tape	Polymide (outside) + Adhesive (inside)

CONSTRUCTION

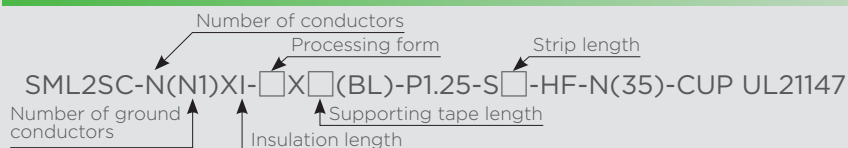
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.85
T	Cable thickness	0.22
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035
—	Ground pin number	Less than 6 lines. And it can not be placed at both ends, and more than 3 consecutive lines can not be arrayed.



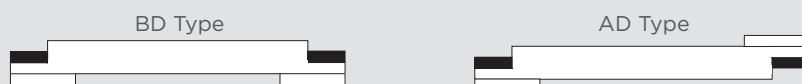
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 750Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE



PROCESSING FORM



REMARKS

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The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating Shielded SUMI-CARD

UL2896·P0.5 Au-Plating

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- **Description** Added the shield function to Gold plated SUMI-CARD
- **Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures and Au-plating.
- **Features** Compatible both shield structure for measure against EMI and gold plated on the terminal for measure against whisker, Developed new connection structure between shield material and ground conductor which will be able to locate anywhere you want, High bending characteristic which is suitable for sliding use

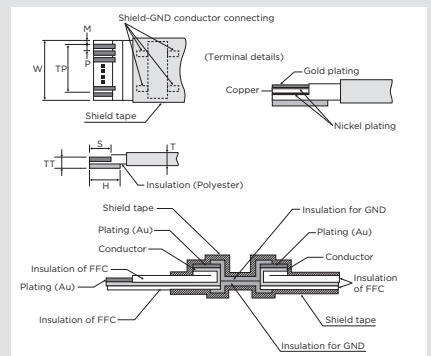


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Conductive filler (Inner)
Insulation for GND		PPS + Adhesive

CONSTRUCTION

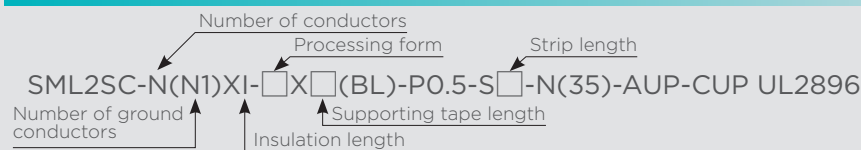
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	BD type: Min. 55, AD type: Min. 70
M	Margin width	0.35
T	Cable thickness	0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Max. 4 (Ground location: anywhere)



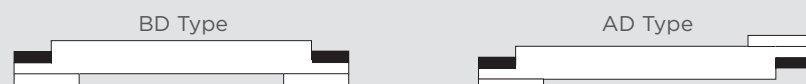
TYPICAL PROPERTIES

UL STYLE	UL2896 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 times (Folding test) *Excluding the ground processing
SLIDING TEST	Min. 15million times (15mmR) *Excluding the ground processing

NOMENCLATURE



PROCESSING FORM



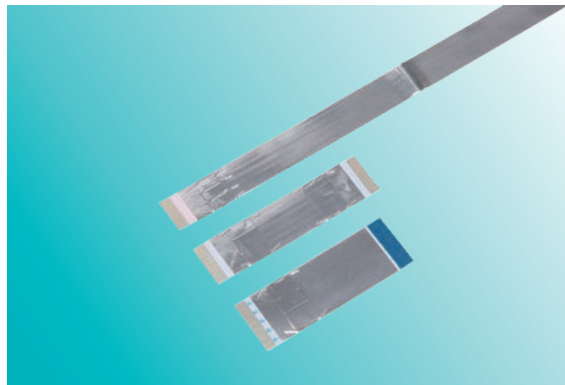
REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

Au-Plating Shielded SUMI-CARD

UL20861·P0.5 Au-Plating

- Description** Added the shield function to Gold plated SUMI-CARD
- Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures and Au-plating.
- Features** Compatible both shield structure for measure against EMI and gold plated on the terminal for measure against whisker, Developed new connection structure between shield material and ground conductor which will be able to locate anywhere you want, High bending characteristic which is suitable for sliding use

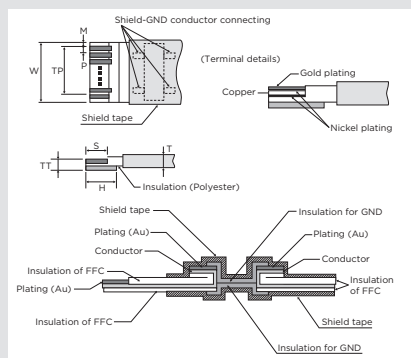


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.3
	Plating: Nickel plating (whole) + Au plating (terminal)
Insulation	Material: Polyester (Adhesive layer : Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue
Shield tape	PET (Outer) + Metallic Layer + Conductive filler (Inner)
Insulation for GND	PPS + Adhesive

CONSTRUCTION

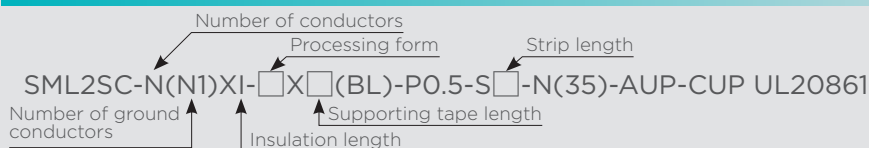
Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	BD type: Min. 55, AD type: Min. 70
M	Margin width	0.35
T	Cable thickness	0.24
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Max. 4 (Ground location: anywhere)



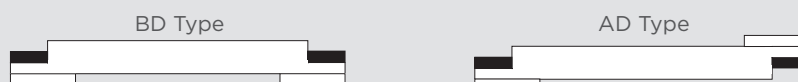
TYPICAL PROPERTIES

UL STYLE	UL20861 (105°C·60V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 times (Folding test) *Excluding the ground processing
SLIDING TEST	Min. 15million times (15mmR) *Excluding the ground processing

NOMENCLATURE



PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.
The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

Au-Plating Shielded SUMI-CARD

UL21147·P0.5 Au-Plating

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

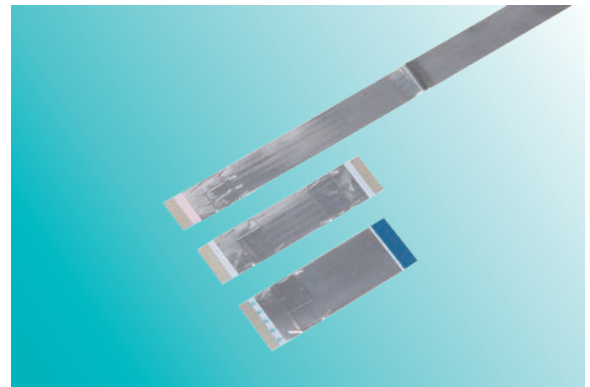
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- **Description** Added the shield function to Gold plated SUMI-CARD
- **Application** Internal wiring for FPD, Game machine, Optical drive, Notebook PC, and electronic equipment in which need shielding measures and Au-plating.
- **Features** Compatible both shield structure for measure against EMI and gold plated on the terminal for measure against whisker, Developed new connection structure between shield material and ground conductor which will be able to locate anywhere you want, High bending characteristic which is suitable for sliding use

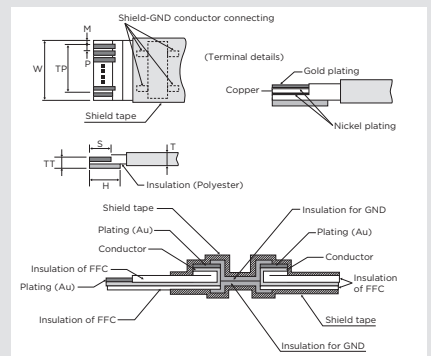


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape		PET (Outer) + Metallic Layer + Conductive filler (Inner)
Insulation for GND		Polymide (outside) + Adhesive (inside)

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	BD type: Min. 55, AD type: Min. 70
M	Margin width	0.35
T	Cable thickness	0.22
TT	Terminal thickness	0.3
S	Strip length	Std. 3.4
H	Supporting tape length	Std. 6.8
A	Conductor width	0.3
B	Conductor thickness	0.035
—	Ground pin number	Max. 4 (Ground location: anywhere)



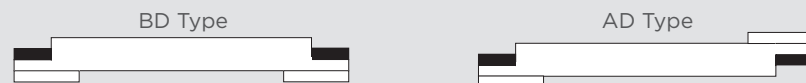
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C·30V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between adjacent conductors AC500V·1min No Dielectric Breakdown Between conductor and shield AC250V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 times (Folding test) *Excluding the ground processing
SLIDING TEST	Min. 15million times (15mmR) *Excluding the ground processing

NOMENCLATURE



PROCESSING FORM



REMARKS

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The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078)

SUMI-CARD for High Frequency

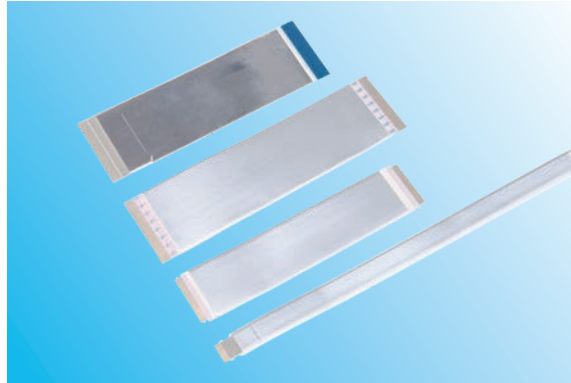
ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

UL20861·P0.5 Au-Plating TYPE I

Description SUMI-CARD for High-frequency (trademark FlexFlyer™) is a Flexible Flat Cable for internal wiring of devices such as those shown below that require high-speed signal transmission. Its bendable characteristics facilitate mounting in narrow spaces and improve airflow. It has the impedance control performance required by high-speed transmission and is compatible with all the latest transmission standards such as Thunderbolt™, USB and PCIe. In addition, due to its structure, it does not suffer from insertion loss sack-out and has excellent skew performance.

Application

- Consumer equipment : PCs, Game consoles, LCD TVs, Copiers etc.
- Industrial equipment : Servers, Storage, 5G base stations etc.
- Automotive : LiDAR, HUDs etc. used in automated driving support systems.

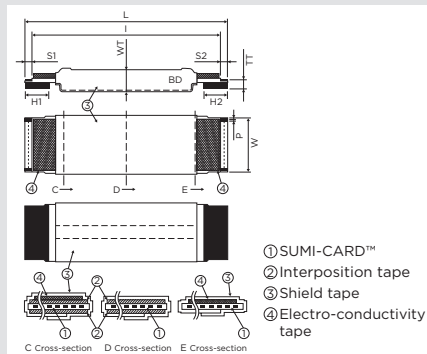


MATERIAL

	Item	Detail		Item	Detail
Conductor	Material	Copper	Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3		Color	White
	Plating	Nickel plating (whole) + Au plating (terminal) Copper Terminal plating thickness: Nickel plating (Min. 0.8μm), Au plating (Min. 0.03μm)		Supporting tape	Material Color
			Shield tape		PET (outer) + Al foil Adhesive: Conductive HM layer
			Electro-conductivity tape		Tinned copper tape (for grounding electrode of shield tape)

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 50
M	Margin width	0.35
T	Cable thickness	(0.74)
TT	Terminal thickness	0.3
S	Strip length	(Connector maker recommended dimension)
H	Supporting tape length	(Connector maker recommended dimension)
A	Conductor width	0.3
B	Conductor thickness	0.035



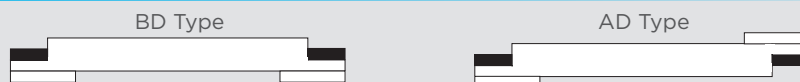
TYPICAL PROPERTIES

UL STYLE	UL20861(105°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Max. 5 cycles
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)
DIFFERENTIAL MODE IMPEDANCE	92Ω typ. 90±10Ω

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
 SML2SC-NXI-□X□(BL)-P0.5-S□-K-M-N(35)-AUP3F-ALS-Z100 UL20861
 \swarrow Insulation length
 \swarrow Supporting tape length

PROCESSING FORM



REMARKS

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 Thunderbolt™ is a trademark or registered trademark of Intel Corporation in the U.S. and other countries.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
SUMI-CARD for High Frequency	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD for High Frequency

UL21147·P0.5 Au-Plating TYPE I

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

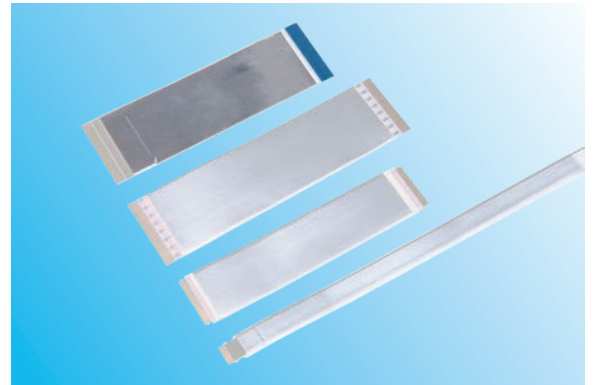
High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

Description SUMI-CARD for High-frequency (trademark FlexFlyer™) is a Flexible Flat Cable for internal wiring of devices such as those shown below that require high-speed signal transmission. Its bendable characteristics facilitate mounting in narrow spaces and improve airflow. It has the impedance control performance required by high-speed transmission and is compatible with all the latest transmission standards such as Thunderbolt™, USB and PCIe. In addition, due to its structure, it does not suffer from insertion loss sack-out and has excellent skew performance.

Application

- Consumer equipment : PCs, Game consoles, LCD TVs, Copiers etc.
- Industrial equipment : Servers, Storage, 5G base stations etc.
- Automotive : LiDAR, HUDs etc. used in automated driving support systems.



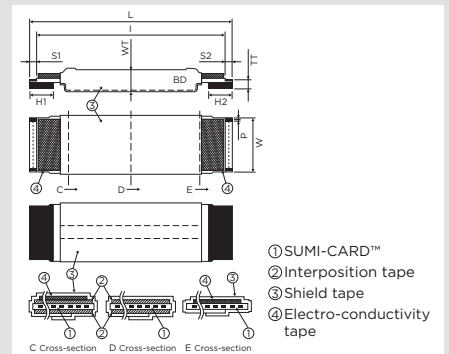
MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal) Copper Terminal plating thickness: Nickel plating (Min. 0.8μm), Au plating (Min. 0.03μm)

Item	Detail	
Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue
Shield tape	PET (outer) + Al foil Adhesive: Conductive HM layer	
Electro-conductivity tape	Tinned copper tape (for grounding electrode of shield tape)	

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 50
M	Margin width	0.35
T	Cable thickness	(0.74)
TT	Terminal thickness	0.3
S	Strip length	(Connector maker recommended dimension)
H	Supporting tape length	(Connector maker recommended dimension)
A	Conductor width	0.3
B	Conductor thickness	0.035



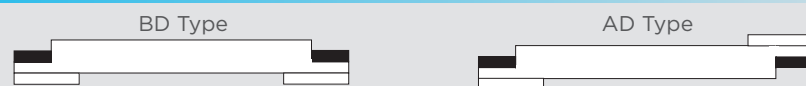
TYPICAL PROPERTIES

UL STYLE	UL21147 (80°C-60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Max. 5 cycles
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)
DIFFERENTIAL MODE IMPEDANCE	90Ω typ. 90±10Ω

NOMENCLATURE

Number of conductors
Processing form
Strip length
SML2SC-NXI-□X□(BL)-P0.5-S□-K-N(35)-AUP3F-HF-ALS-Z100 UL21147
Insulation length
Supporting tape length

PROCESSING FORM



REMARKS

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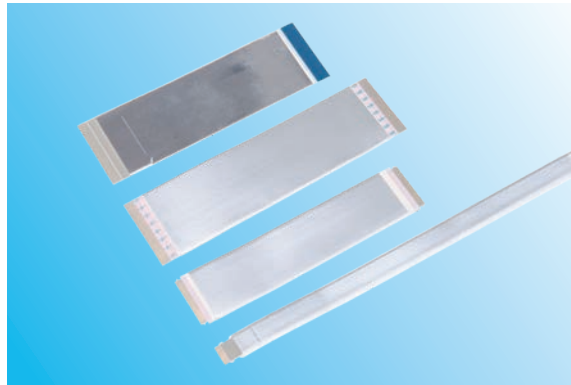
SUMI-CARD for High Frequency

UL20706-P0.5 Au-Plating TYPE I

Description SUMI-CARD for High-frequency (trademark FlexFlyer™) is a Flexible Flat Cable for internal wiring of devices such as those shown below that require high-speed signal transmission. Its bendable characteristics facilitate mounting in narrow spaces and improve airflow. It has the impedance control performance required by high-speed transmission and is compatible with all the latest transmission standards such as Thunderbolt™, USB and PCIe. In addition, due to its structure, it does not suffer from insertion loss sack-out and has excellent skew performance.

Application

- Consumer equipment : PCs, Game consoles, LCD TVs, Copiers etc.
- Industrial equipment : Servers, Storage, 5G base stations etc.
- Automotive : LiDAR, HUDs etc. used in automated driving support systems.

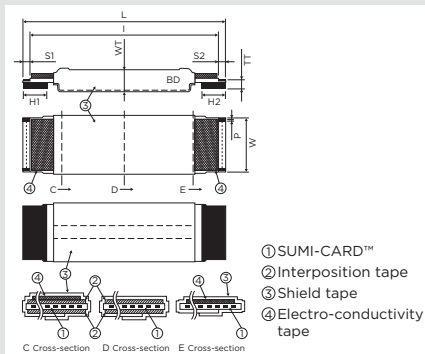


MATERIAL

	Item	Detail		Item	Detail
Conductor	Material	Copper	Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3		Color	White
	Plating	Nickel plating (whole) + Au plating (terminal) Copper Terminal plating thickness: Nickel plating (Min. 0.8μm), Au plating (Min. 0.03μm)		Supporting tape	Material Color
			Shield tape		PET (outer) + Al foil Adhesive: Conductive HM layer
			Electro-conductivity tape		Tinned copper tape (for grounding electrode of shield tape)

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 50
M	Margin width	0.35
T	Cable thickness	(0.74)
TT	Terminal thickness	0.3
S	Strip length	(Connector maker recommended dimension)
H	Supporting tape length	(Connector maker recommended dimension)
A	Conductor width	0.3
B	Conductor thickness	0.035



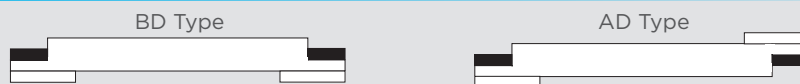
TYPICAL PROPERTIES

UL STYLE	UL20706 (105°C-60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ-m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)
DIFFERENTIAL MODE IMPEDANCE	90Ω typ. 90±10Ω

NOMENCLATURE

Number of conductors
Processing form
Strip length
SML2SC-NXI-X(BL)-P0.5-S-K-N(35)-AUP3F-HF-ALS-Z100 UL20706
Insulation length
Supporting tape length

PROCESSING FORM



REMARKS

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ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE II)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD for High Frequency

UL5442·P0.5 Au-Plating TYPE II

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

Description SUMI-CARD for High-frequency (trademark FlexFlyer™) is a Flexible Flat Cable for internal wiring of devices such as those shown below that require high-speed signal transmission. Its bendable characteristics facilitate mounting in narrow spaces and improve airflow. It has the impedance control performance required by high-speed transmission and is compatible with all the latest transmission standards such as Thunderbolt™, USB and PCIe. In addition, due to its structure, it does not suffer from insertion loss sack-out and has excellent skew performance.

Application

- Consumer equipment : PCs, Game consoles, LCD TVs, Copiers etc.
- Industrial equipment : Servers, Storage, 5G base stations etc.
- Automotive : LiDAR, HUDs etc. used in automated driving support systems.

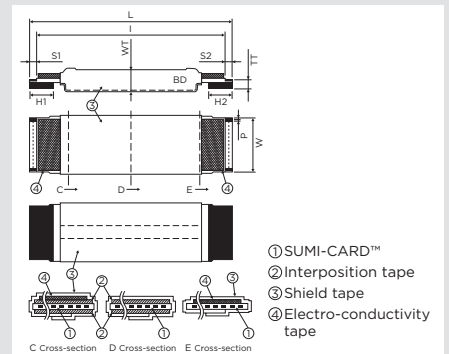


MATERIAL

Item	Detail	Item	Detail		
Conductor	Material	Copper	Insulation	Material	Polyester (Adhesive layer : Flame retardant polyester)
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3		Color	White
	Plating	Nickel plating (whole) + Au plating (terminal) Copper Terminal plating thickness: Nickel plating (Min. 0.8μm), Au plating (Min. 0.03μm)		Supporting tape	Material
			Color	Blue	
			Shield tape	PET (outer) + Al foil Adhesive: Conductive HM layer	
			Electro-conductivity tape	Tinned copper tape (for grounding electrode of shield tape)	

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 50
M	Margin width	0.35
T	Cable thickness	(0.74)
TT	Terminal thickness	0.3
S	Strip length	(Connector maker recommended dimension)
H	Supporting tape length	(Connector maker recommended dimension)
A	Conductor width	0.3
B	Conductor thickness	0.035



TYPICAL PROPERTIES

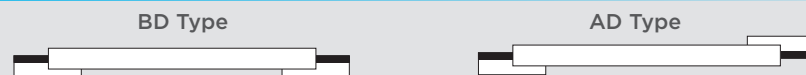
UL STYLE	UL5442 (80°C-60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)
DIFFERENTIAL MODE IMPEDANCE	96Ω typ. 100±10Ω

NOMENCLATURE

Number of conductors: X, Processing form: (BL), Strip length: -S, Insulation length: -I, Supporting tape length: -K, UL5442

SML2SC-NXI-X(BL)-P0.5-S-K-N(35)-AUP3-ALS-Z100 UL5442

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement. The UL-category of this product is not AWM but WIRING HARNESS. (UL approved No. E66078) Thunderbolt™ is a trademark or registered trademark of Intel Corporation in the U.S. and other countries.

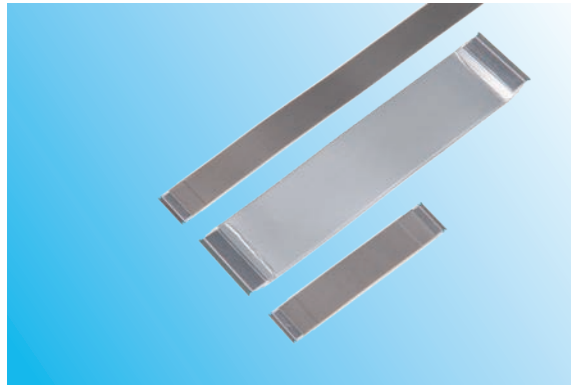
SUMI-CARD for High Frequency

UL5544·P0.5 Au-Plating TYPE III

Description SUMI-CARD for High-frequency (trademark FlexFlyer™) is a Flexible Flat Cable for internal wiring of devices such as those shown below that require high-speed signal transmission. Its bendable characteristics facilitate mounting in narrow spaces and improve airflow. It has the impedance control performance required by high-speed transmission and is compatible with all the latest transmission standards such as Thunderbolt™, USB and PCIe. In addition, due to its structure, it does not suffer from insertion loss sack-out and has excellent skew performance.

Application

- Consumer equipment : PCs, Game consoles, LCD TVs, Copiers etc.
- Industrial equipment : Servers, Storage, 5G base stations etc.
- Automotive : LiDAR, HUDs etc. used in automated driving support systems.

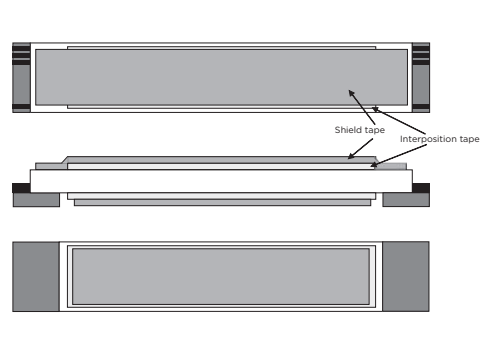


MATERIAL

	Item	Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Au-Plating
Insulation	Material	Polyester (Adhesive layer: Flame-retardant polyolefin adhesive)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 30
M	Margin width	0.85
T	Cable thickness	0.11 (Thin type) or 0.18 or 0.20
TT	Terminal thickness	0.75
S	Strip length	2.0
H	Supporting tape length	8.0
A	Conductor width	0.3
B	Conductor thickness	0.035



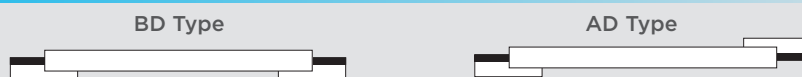
TYPICAL PROPERTIES

UL STYLE	UL5544 (80°C·60V)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V·1min
FLEXIBILITY	Min. 5 cycles 180° Folding Test
ABRASION TEST	Min. 200 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2SC-NX□-□X□(BL)-P0.5-S□-N(35)-AUP3F-DS-ALS-Z100 UL5544
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

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ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
	5556 P1.0
150°C Rating SUMI-CARD	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD for High Temperature, High Humidity

UL5465·P0.5 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

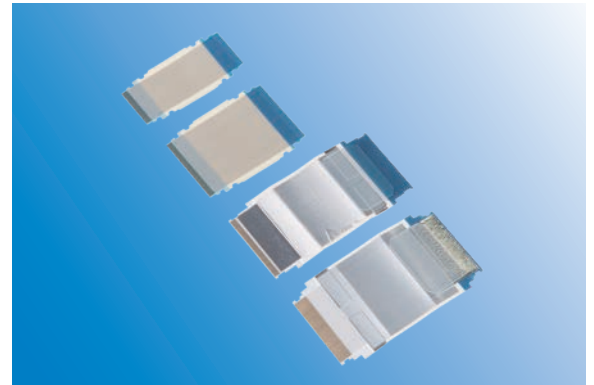
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- Description** Flexible flat cable with high performance for heat resistance and humidity resistance without irradiation through new developed our original insulation materials
- Application** Various in-vehicle devices, rice cookers, and so on.
- Features** High performance with heat resistance and humidity resistance (e.g. 85°C, 85% X 1000Hr)

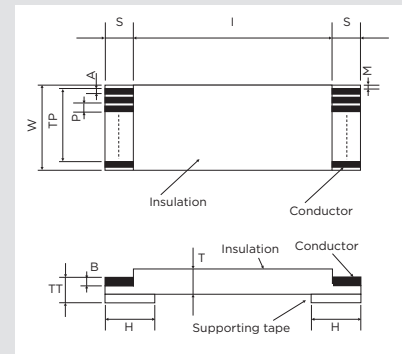


MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3 or 0.05×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer: Flame-retardant polyolefin adhesive)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035 or 0.05



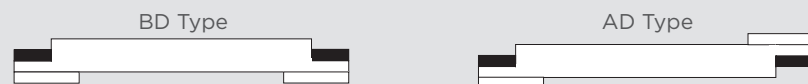
TYPICAL PROPERTIES

UL STYLE	UL5465 (105°C·90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 N: Conductor thickness 0.05mm
SML2CD-NXI-X□(BL)-P0.5-S□-N(35) or N UL5465
 Insulation length ↑ Supporting tape length ↑ N(35): Conductor thickness 0.035mm

PROCESSING FORM



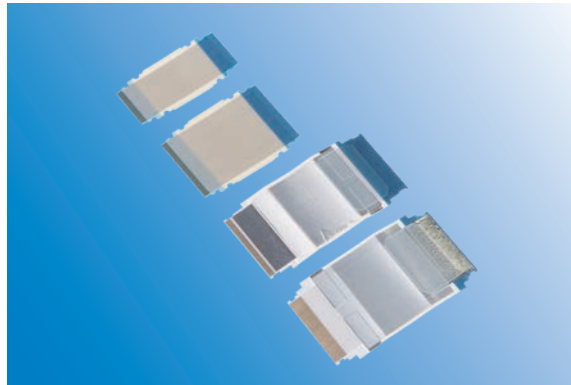
REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD for High Temperature, High Humidity

UL5462·P1.0 Tin plated

- Description** Flexible flat cable with high performance for heat resistance and humidity resistance without irradiation through new developed our original insulation materials
- Application** Various in-vehicle devices, rice cookers, and so on.
- Features** High performance with heat resistance and humidity resistance (e.g. 85°C, 85% X 1000Hr)

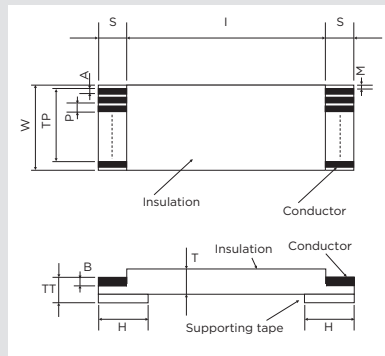


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating: Tin-plated
Insulation	Material: Polyester (Adhesive layer: Flame-retardant polyolefin adhesive)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3, 4
H	Supporting tape length	Std. 6, 8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



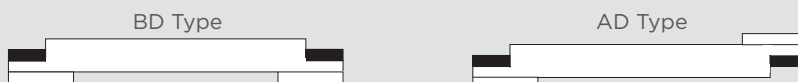
TYPICAL PROPERTIES

UL STYLE	UL5462 (105°C·300V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$SML2CD-NXI-\square \times \square (BL)-P1.0-S\square-N(35)$ or N UL5462
 Number of conductors Processing form Strip length N: Conductor thickness 0.05mm
 Insulation length Supporting tape length N(35): Conductor thickness 0.035mm

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

SUMI-CARD for High Temperature, High Humidity

UL5462·P1.25 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

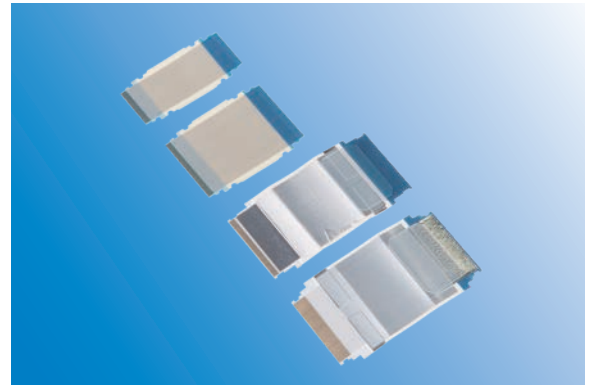
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- **Description** Flexible flat cable with high performance for heat resistance and humidity resistance without irradiation through new developed our original insulation materials
- **Application** Various in-vehicle devices, rice cookers, and so on.
- **Features** High performance with heat resistance and humidity resistance (e.g. 85°C, 85% X 1000Hr)

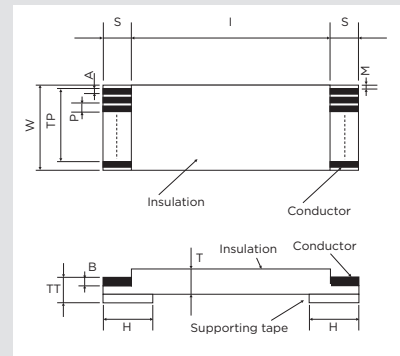


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer: Flame-retardant polyolefin adhesive)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

■ CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.85
T	Cable thickness	0.18 or 0.20
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



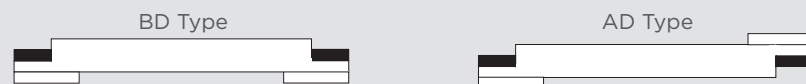
■ TYPICAL PROPERTIES

UL STYLE	UL5462 (105°C·300V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
 \swarrow N: Conductor thickness 0.05mm
SML2CD-NXI-□X□(BL)-P1.25-S□-N(35) or N UL5462
 \swarrow Insulation length
 \swarrow Supporting tape length
 \swarrow N(35): Conductor thickness 0.035mm

■ PROCESSING FORM



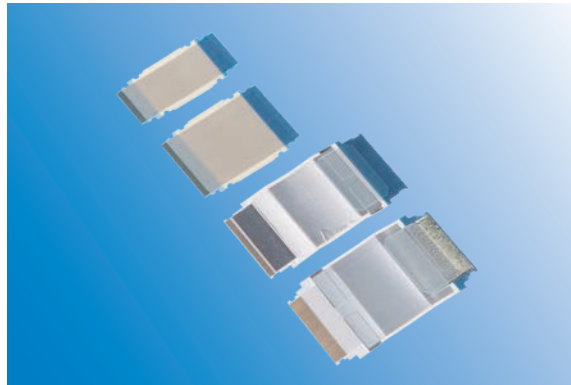
■ REMARKS

This specification is subject to change without a prior announcement.

SUMI-CARD for High Temperature, High Humidity

UL5465·P0.5 Au-Plating

- Description** Flexible flat cable with high performance for heat resistance and humidity resistance without irradiation through new developed our original insulation materials
- Application** Various in-vehicle devices, rice cookers, and so on.
- Features** High performance with heat resistance and humidity resistance (e.g. 85°C, 85% X 1000Hr)

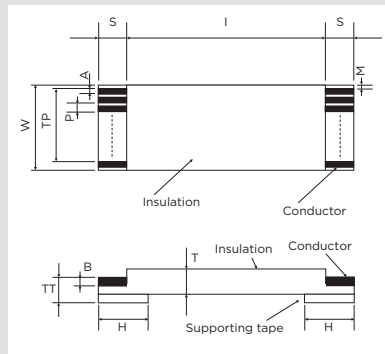


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer: Flame-retardant polyolefin adhesive)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



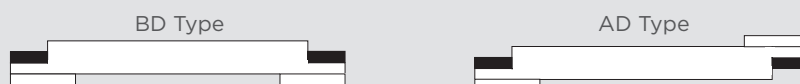
TYPICAL PROPERTIES

UL STYLE	UL5465 (105°C·90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$\begin{matrix} \swarrow & \text{Number of conductors} \\ \text{SML2CD-NXI-} & \square & \text{X} & \square & \text{(BL)-P0.5-S} & \square & \text{-N(35)-AUP UL5465} \\ \nwarrow & \text{Insulation length} & \nearrow & \text{Supporting tape length} & \nearrow & \text{Strip length} \end{matrix}$

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

150°C Rating SUMI-CARD

UL5556-P0.5 Tin plated

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- **Description** Flexible flat cable with excellent performance for heat resistance without irradiation through new developed our original insulation materials
- **Application** ADAS related applications and various in-vehicle devices
- **Features** High performance with heat resistance and humidity resistance (e.g. 150°C × 1000Hr · 85°C, 85% × 1000Hr)

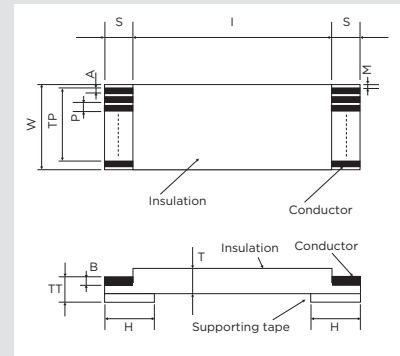


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Tin-plated
Insulation	Material	High performance base-film (Adhesive layer: Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

■ CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



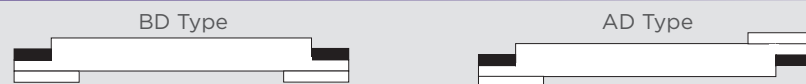
■ TYPICAL PROPERTIES

UL STYLE	UL5556 (125°C-90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2CD-NXI-X (BL)-P0.5-S-N(35) UL5556
 Insulation length
 Supporting tape length

■ PROCESSING FORM



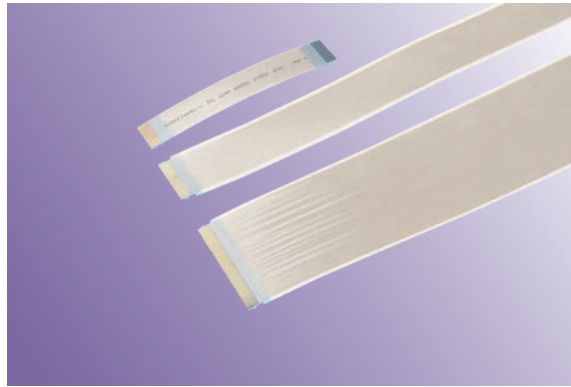
■ REMARKS

The UL rating is 125°C, but we call this product "150°C Rating SUMI-CARD" because it has passed test conditions included our own unique items in which based on JASO D611•ISO6722•SAE/USCAR-2. This specification is subject to change without a prior announcement.

150°C Rating SUMI-CARD

UL5556·P1.0 Tin plated

- Description** Flexible flat cable with excellent performance for heat resistance without irradiation through new developed our original insulation materials
- Application** ADAS related applications and various in-vehicle devices
- Features** High performance with heat resistance and humidity resistance (e.g. 150°C × 1000Hr · 85°C, 85% × 1000Hr)

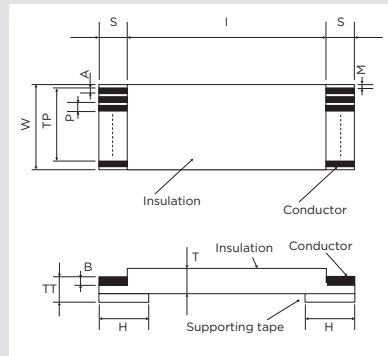


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.7
	Plating: Tin-plated
Insulation	Material: High performance base-film (Adhesive layer: Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035



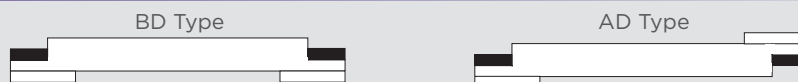
TYPICAL PROPERTIES

UL STYLE	UL5556 (125°C·90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2CD-NXI-X(BL)-P1.0-S-N(35) UL5556
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

The UL rating is 125°C, but we call this product "150°C Rating SUMI-CARD" because it has passed test conditions included our own unique items in which based on JASO D611•ISO6722•SAE/USCAR-2. This specification is subject to change without a prior announcement.

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
Au-Plating Shielded SUMI-CARD	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

150°C Rating SUMI-CARD

UL5556-P0.5 Au-Plating

SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20624 P0.5
- 20624 P1.0
- 20624 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 20861 P0.5
- 20861 P1.0
- 21147 P0.5
- 21147 P1.0
- 20706 P0.5
- 20706 P1.0

Shielded SUMI-CARD

- 2896 P0.5
- 2896 P1.0
- 2896 P1.25
- 20861 P0.5
- 20861 P1.0
- 20861 P1.25
- 21147 P0.5
- 21147 P1.0
- 21147 P1.25

Au-Plating Shielded SUMI-CARD

- 2896 P0.5
- 20861 P0.5
- 21147 P0.5

SUMI-CARD for High Frequency

- 20861 P0.5 (TYPE I)
- 21147 P0.5 (TYPE I)
- 20706 P0.5 (TYPE I)
- 5442 P0.5 (TYPE II)
- 5544 P0.5 (TYPE III)

SUMI-CARD for High Temperature, High Humidity

- 5465 P0.5
- 5462 P1.0
- 5462 P1.25
- 5465 P0.5

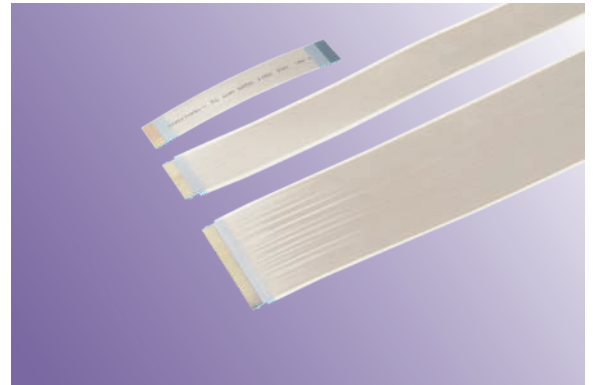
150°C Rating SUMI-CARD

- 5556 P0.5
- 5556 P1.0
- 5556 P0.5 (AUP)
- 5556 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

- 5463 P0.5
- 5461 P1.0
- 5461 P1.25
- 5463 P0.5 (AUP)
- 5461 P1.0 (AUP)

- **Description** Flexible flat cable with excellent performance for heat resistance without irradiation through new developed our original insulation materials
- **Application** ADAS related applications and various in-vehicle devices
- **Features** High performance with heat resistance and humidity resistance (e.g. 150°C × 1000Hr · 85°C, 85% × 1000Hr)

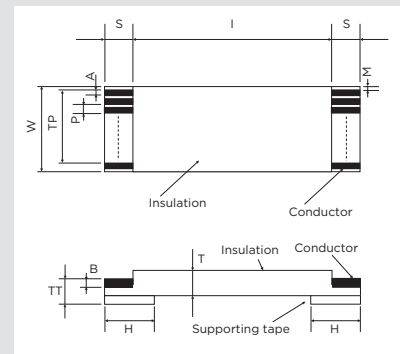


■ MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	High performance base-film (Adhesive layer: Flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

■ CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



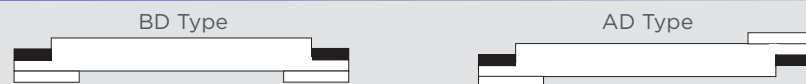
■ TYPICAL PROPERTIES

UL STYLE	UL5556 (125°C-90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ-m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

■ NOMENCLATURE

Number of conductors
Processing form
Strip length
SML2CD-NXI-X (BL)-P0.5-S-N(35)-AUP UL5556
Insulation length
Supporting tape length

■ PROCESSING FORM



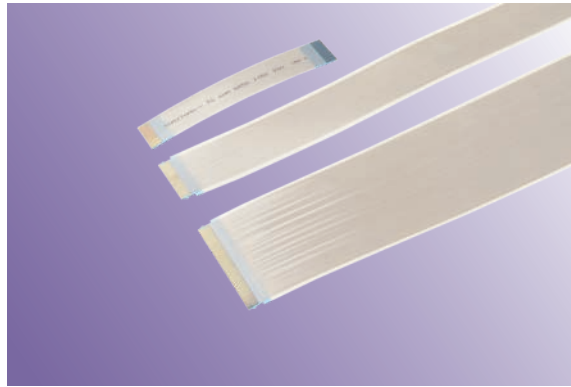
■ REMARKS

The UL rating is 125°C, but we call this product "150°C Rating SUMI-CARD" because it has passed test conditions included our own unique items in which based on JASO D611•ISO6722•SAE/USCAR-2. This specification is subject to change without a prior announcement.

150°C Rating SUMI-CARD

UL5556·P1.0 Au-Plating

- Description** Flexible flat cable with excellent performance for heat resistance without irradiation through new developed our original insulation materials
- Application** ADAS related applications and various in-vehicle devices
- Features** High performance with heat resistance and humidity resistance (e.g. 150°C × 1000Hr · 85°C, 85% × 1000Hr)

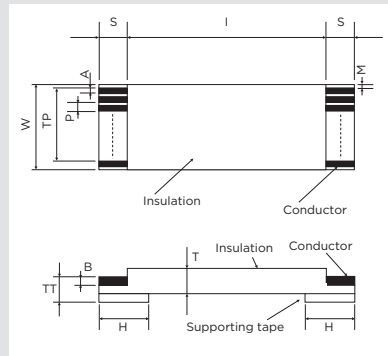


MATERIAL

Item	Detail
Conductor	Material: Copper
	Nominal dimension (mm): Thickness×Width = 0.035×0.7
	Plating: Nickel plating (whole) + Au plating (terminal)
Insulation	Material: High performance base-film (Adhesive layer: Flame retardant polyester)
	Color: White
Supporting tape	Material: Polyester
	Color: Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.035



TYPICAL PROPERTIES

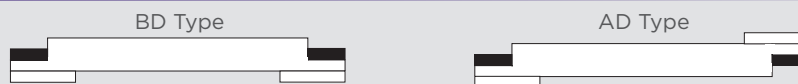
UL STYLE	UL5556 (125°C·90V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC500V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 20 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors: N
 Processing form: X
 Strip length: S(N(35))
 Insulation length: I
 Supporting tape length: H

SML2CD-NXI-X(BL)-P1.0-S-N(35)-AUP UL5556

PROCESSING FORM



REMARKS

The UL rating is 125°C, but we call this product "150°C Rating SUMI-CARD" because it has passed test conditions included our own unique items in which based on JASO D611•ISO6722•SAE/USCAR-2. This specification is subject to change without a prior announcement.

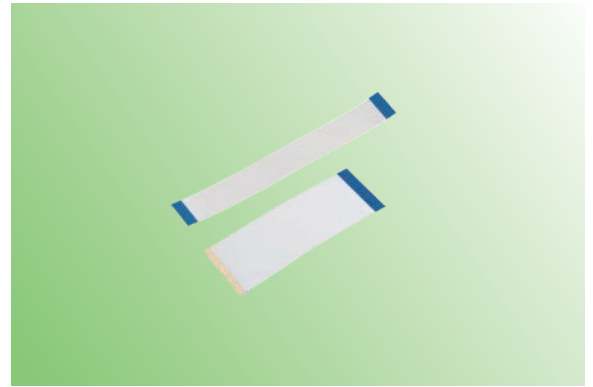
ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
Au-Plating Shielded SUMI-CARD	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

UL5463·P0.5 Tin plated

- Description** Flexible flat cable which is achieved high rating and halogen-free
- Application** LED Backlight unit for LCD TV, and so on
- Features** Our original developed non-irradiated insulation film (halogen-free adhesives)



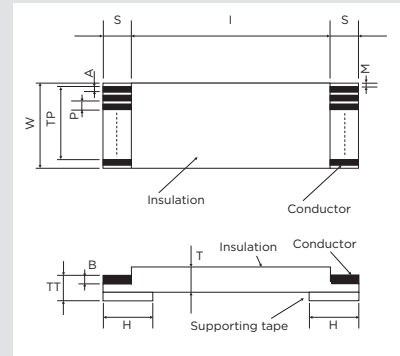
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
2896 P0.5	
2896 P1.0	
20861 P0.5	
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
Shielded SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
5556 P0.5	
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3 or 0.05×0.3
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer: Halogen-free flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.16 or 0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035 or 0.05



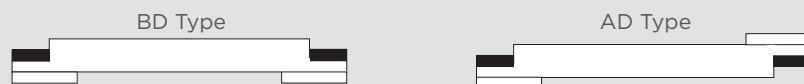
TYPICAL PROPERTIES

UL STYLE	UL5463 (105°C·150V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI- \square X \square (BL)-P0.5-S \square -HF-N(35) or N UL5463
 \uparrow Insulation length \uparrow Supporting tape length

PROCESSING FORM



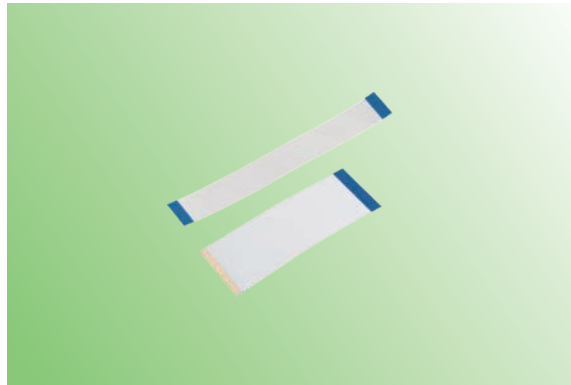
REMARKS

This specification is subject to change without a prior announcement.

High Rating Halogen Free SUMI-CARD

UL5461-P1.0 Tin plated

Description	Flexible flat cable which is achieved high rating and halogen-free
Application	LED Backlight unit for LCD TV, and so on
Features	Our original developed non-irradiated insulation film (halogen-free adhesives)

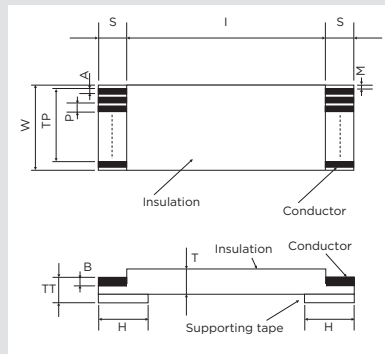


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.7 or 0.05×0.7
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer: Halogen-free flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.16 or 0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3, 4
H	Supporting tape length	Std. 6, 8
A	Conductor width	0.7
B	Conductor thickness	0.035 or 0.05



TYPICAL PROPERTIES

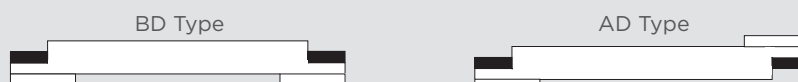
UL STYLE	UL5461 (105°C:300V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V-1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

$$\text{SML2CD-NXI-} \boxed{\text{Insulation length}} \times \boxed{\text{Supporting tape length}} \text{(BL)-P1.0-S} \boxed{\text{Strip length}} \text{-HF-N(35) or N UL5461}$$

Number of conductors
 Processing form
 Strip length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

ELECTRONIC WIRE PRODUCTS SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
	20861 P0.5
Shielded SUMI-CARD	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
Au-Plating Shielded SUMI-CARD	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
SUMI-CARD for High Frequency	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
SUMI-CARD for High Temperature, High Humidity	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
High Rating Halogen Free SUMI-CARD	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

UL5461·P1.25 Tin plated

- Description** Flexible flat cable which is achieved high rating and halogen-free
- Application** LED Backlight unit for LCD TV, and so on
- Features** Our original developed non-irradiated insulation film (halogen-free adhesives)



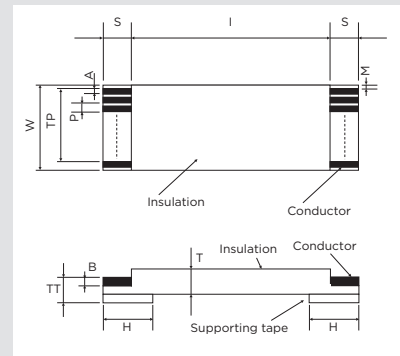
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
21147 P1.0	
21147 P1.25	
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
	21147 P0.5
Shielded SUMI-CARD	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
Au-Plating Shielded SUMI-CARD	2896 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
SUMI-CARD for High Frequency	21147 P1.0
	21147 P1.25
	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
SUMI-CARD for High Temperature, High Humidity	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
	5465 P0.5
	5462 P1.0
	5462 P1.25
150°C Rating SUMI-CARD	5465 P0.5
	5556 P0.5
	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
5461 P1.0 (AUP)	

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.8 or 0.05×0.8
	Plating	Tin-plated
Insulation	Material	Polyester (Adhesive layer: Halogen-free flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.25
TP	Total pitch	1.25×(N-1)
W	Cable width	1.25×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.85
T	Cable thickness	0.16 or 0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.8
B	Conductor thickness	0.035 or 0.05



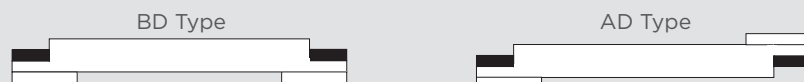
TYPICAL PROPERTIES

UL STYLE	UL5461 (105°C·300V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
SML2CD-NXI-□X□(BL)-P1.25-S□-HF-N(35) or N UL5461
 \swarrow Insulation length
 \swarrow Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

High Rating Halogen Free SUMI-CARD

UL5463·P0.5 Au-Plating

Description	Flexible flat cable which is achieved high rating and halogen-free
Application	LED Backlight unit for LCD TV, and so on
Features	Our original developed non-irradiated insulation film (halogen-free adhesives)

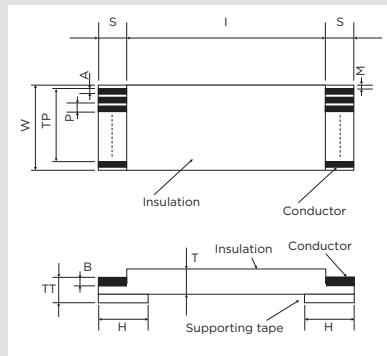


MATERIAL

Item	Detail	
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.035×0.3
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer: Halogen-free flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 80
P	Pitch	0.5
TP	Total pitch	0.5×(N-1)
W	Cable width	0.5×(N+1)
I	Insulation length	Min. 20
M	Margin width	0.35
T	Cable thickness	0.16
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.3
B	Conductor thickness	0.035



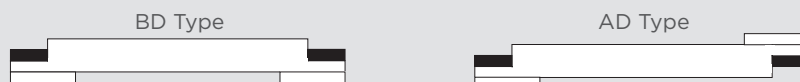
TYPICAL PROPERTIES

UL STYLE	UL5463 (105°C·150V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 2,200Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 30 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

\swarrow Number of conductors
 \swarrow Processing form
 \swarrow Strip length
 SML2CD-NXI- \square X \square (BL)-P0.5-S \square -HF-N(35)-AUP UL5463
 \uparrow Insulation length \uparrow Supporting tape length

PROCESSING FORM



REMARKS

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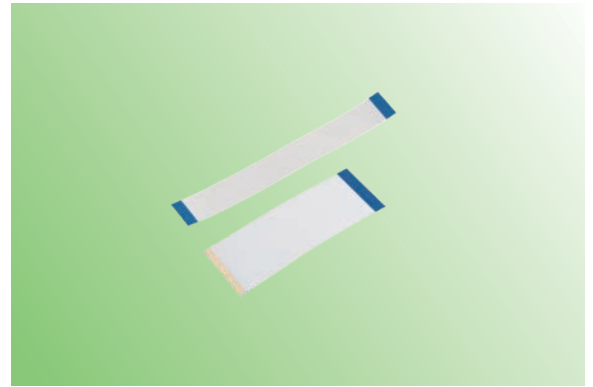
ELECTRONIC WIRE PRODUCTS
SUMI-CARD™

	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
SUMI-CARD	20624 P1.25
	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
	2896 P1.0
	20861 P0.5
Au-Plating SUMI-CARD	20861 P1.0
	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
Au-Plating Shielded SUMI-CARD	2896 P0.5
	20861 P0.5
	21147 P0.5
	20861 P0.5 (TYPE I)
SUMI-CARD for High Frequency	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
	5544 P0.5 (TYPE III)
SUMI-CARD for High Temperature, High Humidity	5465 P0.5
	5462 P1.0
	5462 P1.25
	5465 P0.5
	5556 P0.5
150°C Rating SUMI-CARD	5556 P1.0
	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
High Rating Halogen Free SUMI-CARD	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

High Rating Halogen Free SUMI-CARD

UL5461·P1.0 Au-Plating

- Description** Flexible flat cable which is achieved high rating and halogen-free
- Application** LED Backlight unit for LCD TV, and so on
- Features** Our original developed non-irradiated insulation film (halogen-free adhesives)



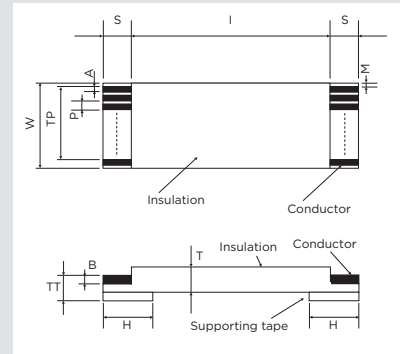
SUMI-CARD	2896 P0.5
	2896 P1.0
	2896 P1.25
	20624 P0.5
	20624 P1.0
	20624 P1.25
	20861 P0.5
20861 P1.0	
20861 P1.25	
21147 P0.5	
21147 P1.0	
21147 P1.25	
Au-Plating SUMI-CARD	2896 P0.5
	2896 P1.0
	20861 P0.5
	20861 P1.0
Shielded SUMI-CARD	21147 P0.5
	21147 P1.0
	20706 P0.5
	20706 P1.0
	2896 P0.5
	2896 P1.0
	2896 P1.25
Au-Plating Shielded SUMI-CARD	20861 P0.5
	20861 P1.0
	20861 P1.25
	21147 P0.5
	21147 P1.0
	21147 P1.25
	2896 P0.5
SUMI-CARD for High Frequency	20861 P0.5 (TYPE I)
	21147 P0.5 (TYPE I)
	20706 P0.5 (TYPE I)
	5442 P0.5 (TYPE II)
SUMI-CARD for High Temperature, High Humidity	5544 P0.5 (TYPE III)
	5465 P0.5
	5462 P1.0
150°C Rating SUMI-CARD	5462 P1.25
	5465 P0.5
	5556 P0.5
	5556 P1.0
High Rating Halogen Free SUMI-CARD	5556 P0.5 (AUP)
	5556 P1.0 (AUP)
	5463 P0.5
	5461 P1.0
	5461 P1.25
	5463 P0.5 (AUP)
	5461 P1.0 (AUP)

MATERIAL

Item		Detail
Conductor	Material	Copper
	Nominal dimension (mm)	Thickness×Width = 0.05×0.7
	Plating	Nickel plating (whole) + Au plating (terminal)
Insulation	Material	Polyester (Adhesive layer: Halogen-free flame retardant polyester)
	Color	White
Supporting tape	Material	Polyester
	Color	Blue

CONSTRUCTION

Symbol	Item	Spec. (mm)
N	Number of conductors	4 to 40
P	Pitch	1.0
TP	Total pitch	1.0×(N-1)
W	Cable width	1.0×(N+1)
I	Insulation length	Min. 20 (AD type : Min. 30)
M	Margin width	0.65
T	Cable thickness	0.18
TT	Terminal thickness	0.3
S	Strip length	Std. 3,4
H	Supporting tape length	Std. 6,8
A	Conductor width	0.7
B	Conductor thickness	0.05



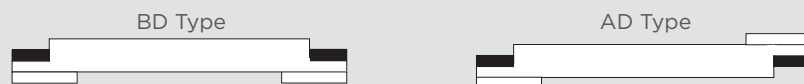
TYPICAL PROPERTIES

UL STYLE	UL5461 (105°C·300V Rating)
FLAME TEST	VW-1 Pass
CONDUCTOR RESISTANCE	Max. 600Ω/km
INSULATION RESISTANCE	Min. 1,000MΩ·m
DIELECTRIC STRENGTH	Between Adjacent Conductors AC2,000V·1min No Dielectric Breakdown
FLEXIBILITY	Min. 100 cycles 180° Folding Test
ABRASION TEST	Min. 10,000 cycles (ø0.5mm 600g 60cycles/min)

NOMENCLATURE

Number of conductors
 Processing form
 Strip length
 SML2CD-NXI-□X□(BL)-P1.0-S□-HF-N-AUP UL5461
 Insulation length
 Supporting tape length

PROCESSING FORM



REMARKS

This specification is subject to change without a prior announcement.

Sumitomo Electric Industries, Ltd.



Electronic Wire Products

<https://global-sei.com/ewp/E/>

This specification is subject to change without a prior announcement.

ESP-057 (2024.07)

