

**PRODUCT FAMILY SPECIFICATION FOR
0.50mm CENTER FLAT FLEX CABLE (FFC)
(105°C, Sn PLATED)**

Revision List

REVISION	MODIFICATION	DATE
A	First release	2004/07/05
B	Updated specification	2011/09/29
C	Updated specification	2014/02/17
D	Margin updated from 0.50 + 0.15/-0.096mm to 0.50 +/- 0.12mm Span updated from 0.50 (N-1) +/- 0.10mm to 0.50 (N-1) +/- 0.07mm	2019/04/04
E	Corrected insulation resistance unit of measure	2020/03/12
F	New format	2022/08/22
G	Total width tolerance corrected.	2022/12/08

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G	EC No: 731362 DATE: 2022/12/08	PRODUCT FAMILY SPECIFICATION FOR 0.50mm CENTER FLAT FLEX CABLE (FFC) (105°C, Sn PLATED)	1 of 5
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-98266-001	D. GOMEZ	M. IMIG	J. SMITH

TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A4](V.2).DOC

1 SCOPE

This specification covers the 0.50mm center FFC (Flat Flexible Cable) jumper cable, 105°C using tin plated copper conductor.

2 PRODUCT DESCRIPTION

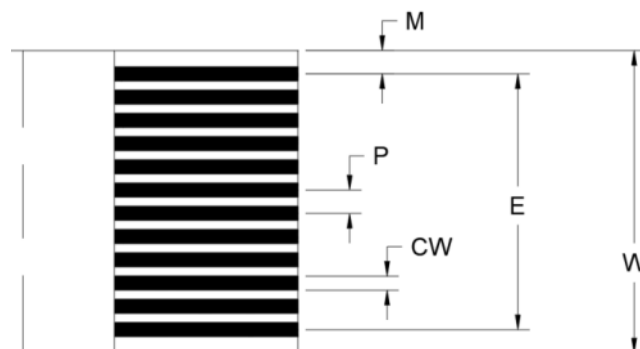
2.1 Product name and series number

Product name: 0.50MM CENTER FFC JUMPER CABLE (105°C, Sn PLATED)
Product material no: 98266-XXXX

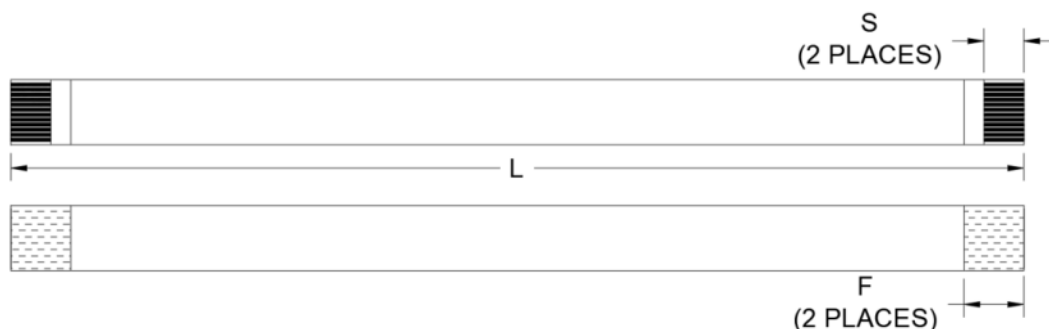
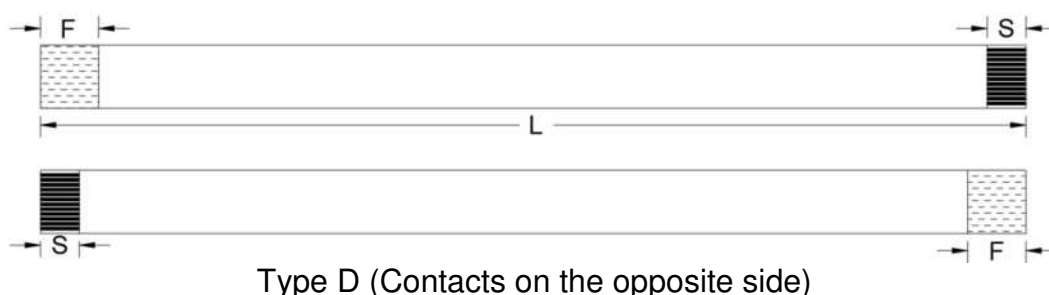
2.2 Dimensions, materials, and markings

Product dimensions (in mm) according to SD-98266-001.

Number of conductors	N	Refer to sales drawing
Pitch	P	0.50 ± 0.05
Span	E	$0.50 (N-1) \pm 0.07$
Total width	W	$0.50 (N+1) \pm 0.06$
Conductor width	CW	0.30 ± 0.02
Margin width	M	0.50 ± 0.12
Strip length	S	4.00 ± 0.80
End thickness of the connection area	Tc	0.30 ± 0.05
Thickness of the insulated area	Ti	0.22 ± 0.05
Insulated length	L	30 to 60 ± 2.00 61 to 100 ± 3.00 101 to 200 ± 4.00 201 to 999 ± 5.00
Reinforcement length	F	8.00 ± 2.00
End scariness	s-s'	0.30 max.

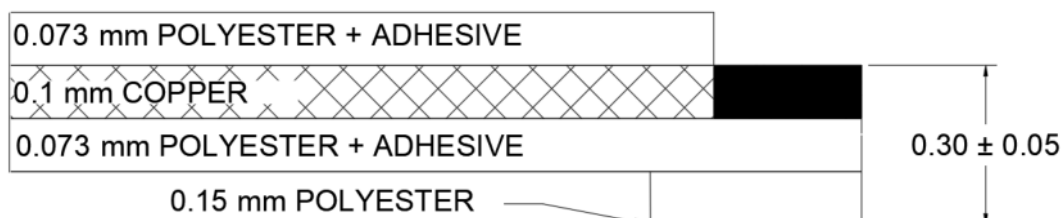


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2.3 Composition

- FFC conductor: Material: Copper
 Thickness: 0.10mm
 Plating: 0.4 μ m Sn min.
- FFC tape: Material: Polyester + Flame retardant adhesive
 Thickness: 0.073mm nominal
 Color: White
- Reinforcement tape: Material: Polyester + Adhesive
 Thickness: 0.15mm nominal



2.4 Current and applicable conductors

Conductor Width	Conductor Thickness	Cross section	Current
0.3 mm	0.1 mm	0.03mm ²	0.55 A

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3 ELECTRICAL AND PHYSICAL SPECIFICATIONS

3.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Conductor resistance	ASTM B 193	730 Ω /km MAXIMUM
2	Insulation resistance cond. to cond.	200 V DC	10 M Ω .m MINIMUM
3	Dielectric test	200 V AC for 1 minute	No disruptive discharge
4	Continuity test	3,0 V DC at 0,1mA	passed
5	Voltage rating		60 V AC MAXIMUM
6	Current rating	0.55 A (all conductors under load) at 23°C	Maximum 40°C heat rise
7	Impedance cond/cond balanced method	FFC at 1 MHz	130 Ω TYP
8	Capacitance cond/cond balanced method	FFC at 1 KHz	62 pF/m

3.2 Physical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
9	Temperature rating		-40°C to +105°C
10	Heat resistance	168 hours at 135°C	Insulation resistance Dielectric test
11	Thermal shock	30 minutes at -55°C 5 minutes at +25°C 30 minutes at +105°C 5 minutes at +25°C	Insulation resistance after 25 cycles
12	Cold coiling	96 hours at -40°C / The sample will be wound on a 3mm dia. Mandrel	Visual inspection Insulation resistance dielectric test
13	Wear by abrasion	Test following EN3475-503 Weight: 500g Speed: 60 cycles/min Abrasion tool: 0,50mm	10,000 cycles MINIMUM
14	Folding	The specimen shall be folded manually at 180°	Continuity after 20 times
15	Flex Lifecycles	Speed: 100 cycles/min R: 10 mm Temp: 23°C 	100,000 cycles MINIMUM
16	Moisture resistance	96 hours at 60°C, 95% RH	Insulation resistance

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17	Insulation elongation	JIS C 2318	60 % MINIMUM
18	Tensile strength	JIS C 2318	32 N/mm ² MINIMUM

4 UL APPROVAL

These products are UL compliant under:

UL style 20706

Temperature rating: 105°C

Voltage rating: 60 V AC

5 ROHS COMPLIANCE

This Flat Flexible Cable product family is compliant to RoHS Directive (EU) 2015/863.

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