

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

Revision List

REVISION	MODIFICATION	DATE
A	First release	2010/09/27
B	Updated specification	2011/09/29
C	Modified specification (Sections 2.2, 2.3, 4.1, 6, 7)	2014/05/07
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	Format update	2022/08/18

REVISION:	ECR/ECN INFORMATION:	TITLE:	SHEET No.
E	EC No: 716688 DATE: 2022/08/18	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-15266-001	D. GOMEZ	M. IMIG	J. SMITH

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

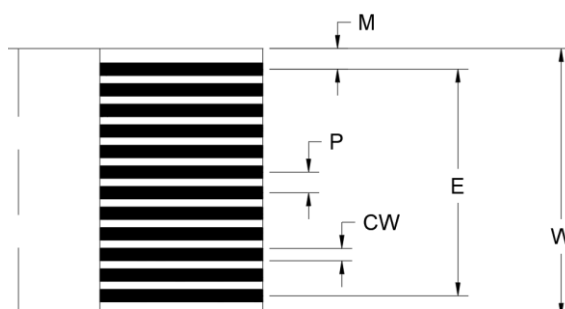
2.1 Product name and series number

Product name: 0.50MM CENTER FFC JUMPER CABLE (105°C, Sn PLATED)
Product material no: 15266-XXXX

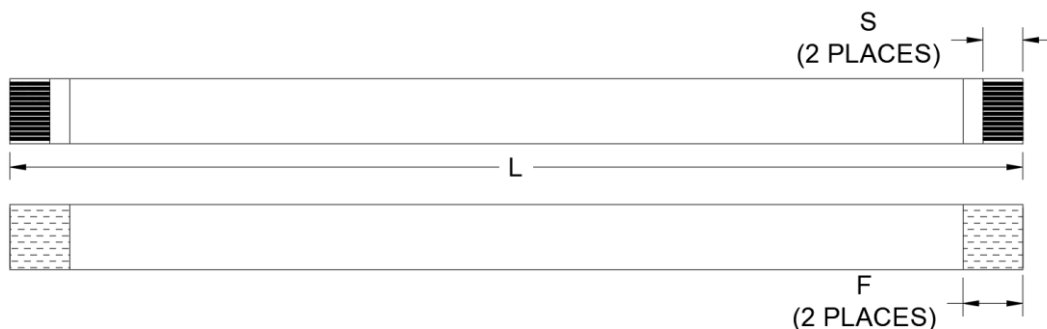
2.2 Dimensions, materials, and markings

Product dimensions according to SD-15266-001.

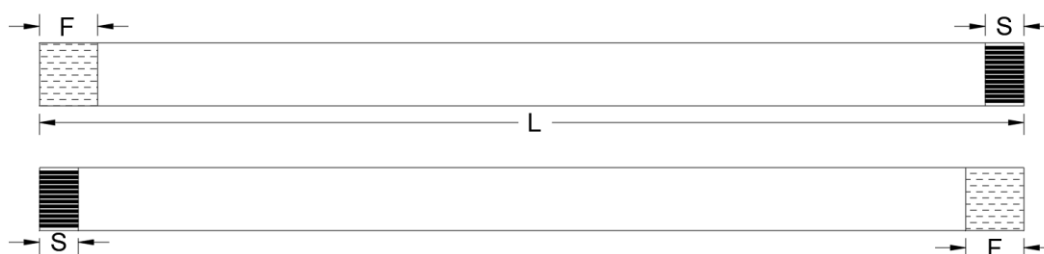
Number of conductors	N	6 to 50
Pitch	P	0.50 ± 0.05mm
Span	E	0.50 (N-1) ± 0.07mm
Total width	W	0.50 (N+1) ± 0.10mm
Margin width	M	0.50 ± 0.12mm
Conductor width	CW	0.30 ± 0.02 mm
Strip length	S	4.00 ± 0.80mm
End thickness of the connection area	Tc	0.30 ± 0.05mm
Thickness of the insulated area	Ti	0.27 ± 0.05mm
Length	L	20 to 60mm ± 2.00mm 61 to 100mm ± 3.00mm 101 to 200mm ± 4.00mm 201 to 3999mm ± 5.00mm 4000 to 5999mm ± 10.00mm 6000 to 9999mm ± 15.00mm
Reinforcement length	F	8.00 ± 2.00mm
End squareness	s-s'	0.30mm max.



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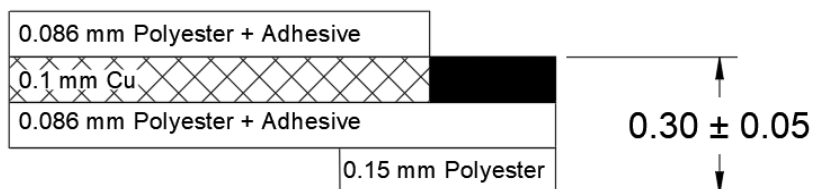
Type A (Contacts on the same side)



Type D (Contacts on the opposite side)

2.3 COMPOSITION

- Conductor:**
 - Material: Copper
 - Thickness: 0.10mm nominal (Standard)
 - Plating: 0.4 μ m Tin min
- Insulation tape:**
 - Material: Polyester + Flame retardant adhesive
 - Thickness: 0.086mm 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 SPECIFICATION

3.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Conductor resistance	ASTM B 193	730 ohms/km MAXIMUM
2	Insulation resistance cond. to cond.	200 V DC	10 MΩ.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	UL20706	60 V AC MAXIMUM
6	Current rating	at 23°C increase in 10°C at the surface (all conductors under load)	0.55 A MIN
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 136°C	Insulation resistance Dielectric test
11	Thermal shock	30 minutes at -55°C 5 minutes at +25°C 30 minutes at +85°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	Insulation resistance Dielectric test Visual inspection
13	Wear by abrasion	Test following EN3475-503 Weight: 500g Speed: 60 cycles/min Abrasion tool: 0.13mm dia.	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 MIN
16	Moisture resistance	96 hours at 60°C, 95% RH	Insulation resistance Dielectric test

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17	Flame resistance	UL 758 VW-1	Passed
18	Solderability	Immersion of the area which is intended for soldering into a tin bath at 250 ± 10°C for 30 seconds	No delamination Solder reflow below 1 mm

4 UL APPROVAL

Materials used and construction of cable 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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