



PRODUCT SPECIFICATION

PRODUCT FAMILY SPECIFICATION FOR
1.00 mm PITCH FLAT FLEX CABLE (FFC)
(FS-19, 105°C, Sn PLATING)

Revision List

REVISION	MODIFICATION	DATE
A	First release	2023/02/28

REVISION: A	ECR/ECN INFORMATION: EC No: 740437 DATE: 2023/02/28	TITLE: PRODUCT FAMILY SPECIFICATION FOR 1.00 mm PITCH FLAT FLEX CABLE (FFC) (FS-19, 105°C, Sn PLATING)	SHEET No. 1 of 5
DOCUMENT NUMBER: 154670001	CREATED / REVISED BY: D. GOMEZ	CHECKED BY: M. IMIG	APPROVED BY: J.SMITH

TEMPLATE FILENAME: PRODUCT_SPEC{SIZE_A4}(V.2).DOC

1 SCOPE

This specification covers the 1.00mm center FFC (Flat Flexible Cable) FS-19 jumper cable, 105°C, using tin plated copper conductor.

2 PRODUCT DESCRIPTION

2.1 Product name and series number

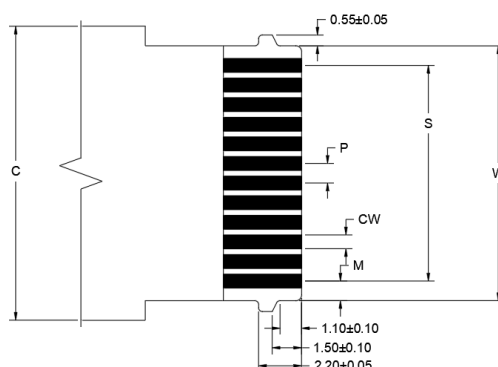
Product name: 1.00MM PITCH FFC JUMPER CABLE (FD-19, 105°C, Sn PLATING)

Product material no: 15467-XXXX

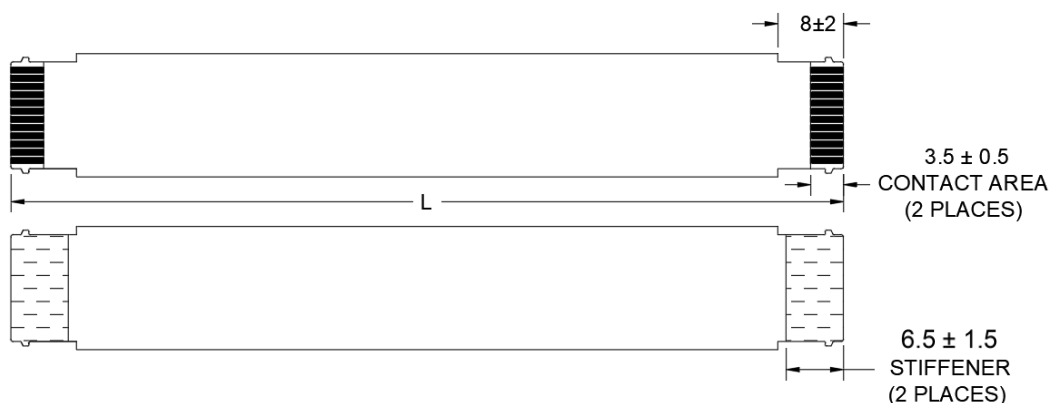
2.2 Dimensions, materials, and markings

Product dimensions (in mm) according to 154670001.

Number of conductors	N	Refer to sales drawing
Pitch	P	1.00 ± 0.05
Span	E	$N - 1 \pm 0.05$
Total width	W	$N + 1 \pm 0.15$
Conductor width	CW	0.70 ± 0.03
Center width	C	$N + 3 \pm 0.15$
Margin width	M	1.00 ± 0.15
Strip length	S	3.5 ± 0.5
End thickness of the connection area	Tc	0.30 ± 0.05
End thickness of the insulated area	Ti	0.27 ± 0.05
Insulated length	L	20 to 60 ± 2 61 to 100 ± 3 101 to 200 ± 4 201 to 399 ± 5
Reinforcement length	F	6.5 ± 1.5
End squareness	s-s'	0.40 max.



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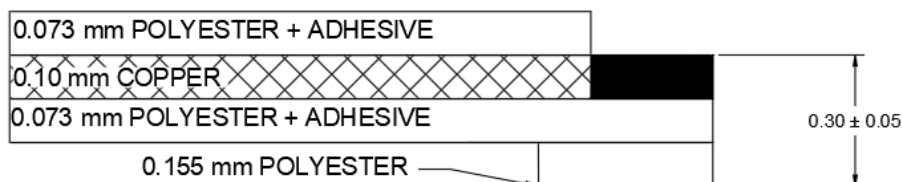
Type A (Contacts on the same side)



Type D (Contacts on the opposite side)

2.3 COMPOSITION

- Conductor:**
 - Material: Copper
 - Thickness: 0.10 mm nominal
 - Plating: 0.4 μ m Sn min
- Insulation tape:**
 - Material: Polyester + Flame retardant adhesive
 - Thickness: 0.073 mm typical
 - Color: White
- Reinforcement tape:**
 - Material: Polyester + Adhesive
 - Thickness: 0.155 mm nominal



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2.4 Current and applicable conductors

Conductor Width	Conductor Thickness	Cross section	Current
0.7 mm	0.1 mm	0.07mm ²	1.25 A

3 ELECTRICAL AND PHYSICAL SPECIFICATION


3.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Conductor resistance	ASTM B 193	300 ohms/km MAXIMUM
2	Insulation resistance cond. to cond.	400 V DC	10 Mohms.m MINIMUM
3	Dielectric test	400 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	1.25 A (all conductors under load) at 23°C	40°C heat rise MAX
7	Impedance cond/cond balanced method	FFC at 1 MHz	120 Ω TYP
8	Capacitance cond/cond balanced method	FFC at 1 KHz	50 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

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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
17	Flame resistance	UL 758 VW-1	Passed

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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