



PRODUCT SPECIFICATION

PRODUCT SPECIFICATION OF THE 1.25MM CENTER FFC JUMPER CABLE (LOW TEMPERATURE)

Revision List

REVISION	MODIFICATION	SHEETS	DATE
A	First Release	1 - 5	2011/09/29

REVISION: A	ECR/ECN INFORMATION: EC No: USW2012-0078 DATE: 2011/09/29	TITLE: PRODUCT SPECIFICATION 1.25MM CENTER FFC JUMPER CABLE (LOW TEMPERATURE)	SHEET No. 1 of 5
DOCUMENT NUMBER: PS-21049-001	CREATED / REVISED BY: M.IMIG	CHECKED BY: D.ENGLISH	APPROVED BY: S.FULTON



PRODUCT SPECIFICATION

1 SCOPE

This specification covers the 1.25mm center FFC (Flat Flexible Cable) jumper cable, low temperature style, using tin plated copper conductor.

2 PRODUCT DESCRIPTION

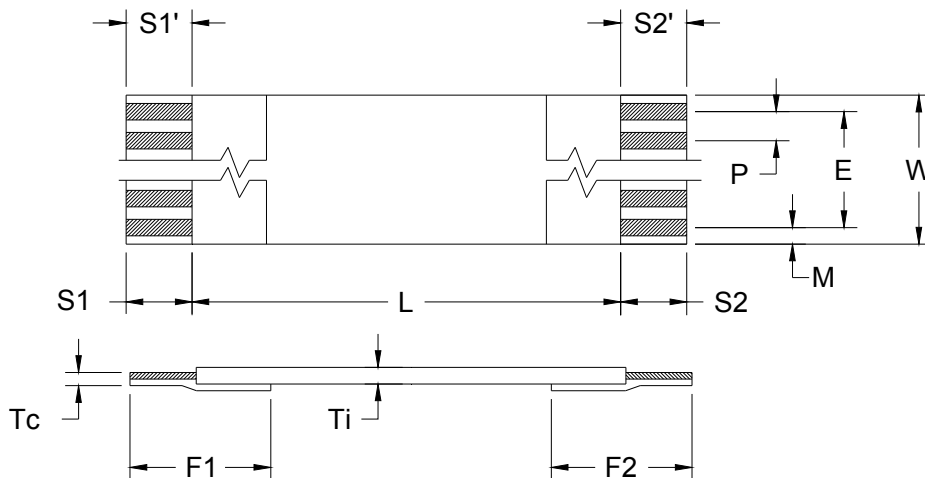
2.1 Product name and series number

Product name: 1.25MM CENTER FFC JUMPER CABLE (LOW TEMP)
Product material no: 21049-XXXX

2.2 Dimensions, materials and markings

Product dimensions according SD-21049-001.

- Number of conductors N: 3 to 79
- Pitch P: 1.25 ± 0.10mm
- Span E: 1.25 (N-1) ± 0.15mm
- Total width W: 1.25 (N+1) ± 0.15mm
- Margin width M: 1.25 ± 0.20mm
- Strip length S: 2.00 to 10.00 ± 0.80mm
- End thickness of the connection area Tc: 0.30 ± 0.05mm
- Thickness of the insulated area Ti: 0.32 ± 0.05mm
- Insulated 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: 6.00 to 20.00 ± 2.00mm
- End squareness s-s': 0.40mm max.



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2.3 COMPOSITION

- Conductor: Material: Tin plated copper conductor
 Thickness: 0.10mm nominal (Standard)
- Insulation tape: Material: Polyester + Flame retardant adhesive
 Thickness: 0.115mm nominal
 Color: white
- Reinforcement tape: Material: Polyester + Adhesive
 Thickness: 0.23mm nominal
 Color: Blue

2.4 Safety agency approvals

Not applicable.

3 RATINGS

3.1 Current and applicable conductors

Cross section	Amps
0.08mm ²	1.4

3.2 Temperature

Operating temperature: -40°C to +80°C

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4 PERFORMANCE

4.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Conductor resistance	ASTM B 193	250 ohms/km MAXIMUM
2	Insulation resistance cond. to cond.	500 V DC	10 Mohms/km MINIMUM
3	Dielectric test	500 V AC for 1 minute	No disruptive discharge
4	Continuity test	3.0 V DC at 0.1mA	passed
5	Voltage rating		30 V AC MAXIMUM
6	Current rating	at 23°C increase in 10°C at the surface (all conductors under load)	1.4 A MIN

4.2 Physical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Temperature rating		-40°C to +80°C
8	Heat resistance	168 hours at 113°C	Insulation resistance Dielectric test
9	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
10	Cold coiling	96 hours at -40°C / The sample will be wound on a 3mm dia. Mandrel	Insulation resistance Dielectric test Visual inspection
11	Wear by abrasion	Test following EN3475-503 Weight: 500g Speed: 60 cycles/min Abrasion tool: 0.13mm dia.	10000 cycles (standard) 1000 cycles (shielded) MINIMUM
12	Folding	The specimen shall be folded manually (Bending angle: 180° / Radius: 4mm)	20 times MINIMUM
13	Moisture resistance	96 hours at 60°C, 95% RH	Insulation resistance Dielectric test
14	Flame resistance	UL 758 VW-1	Passed
15	Solderability	Immersion of the area which is intended for soldering into a tin bath at 250 ± 10°C During 30 seconds	No delamination Solder reflow below 1 mm

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5 PACKAGING

According to MOLEX packaging specification: PK-21049-001

6 UL APPROVAL

These products are UL compliant under:

UL style 2896

Temperature rating: 80°C

Voltage rating: 30 V AC

7 ROHS COMPLIANCE

Cable construction is RoHS compliant. This includes base FFC, shielded FFC and painted shielded FFC.

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