PRODUCT SPECIFICATION

PRODUCT SPECIFICATION OF THE 0.30MM CENTER FFC JUMPER CABLE

Revision List

REVISION	MODIFICATION	SHEETS	DATE
A	First Release	1 - 5	2011/11/15

1 SCOPE

This specification covers the 0.30mm center FFC (Flat Flexible Cable) jumper cable, high temperature style, using gold plated copper conductor.

2 PRODUCT DESCRIPTION

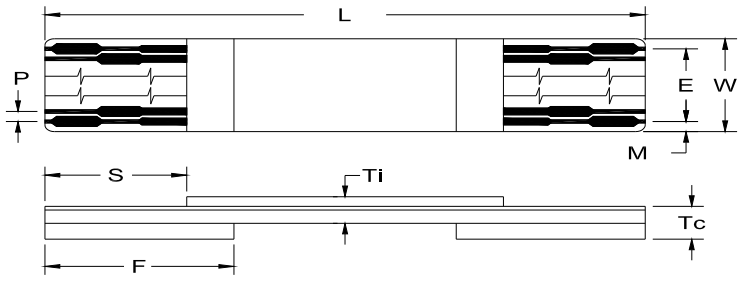
2.1 Product name and series number

Product name: 0.30MM CENTER FFC JUMPER CABLE
Product material no: 15015-XXXX

2.2 Dimensions, materials and markings

Product dimensions according SD-15015-001.

Number of conductors ····· N: 23, 25, 27, 29, 33, 39, 45, & 51
Pitch ····· P: 0.30 ± 0.05mm
Span ····· E: 0.30 (N-I) ± 0.10mm
Total width ····· W: 0.30 (N+I) ± 0.10mm
Margin width ····· M: 0.30 + 0.15mm/ -0.096mm
Exposed Contacts ····· S: 3.00mm ± .50mm
End thickness ····· Tc: 0.80 ± 0.05mm
Thickness - insulated area ····· Ti: 0.12 ± 0.05mm
Length ····· L: 2.00”, 4.00”, 6.00”, 8.00”, & 10.00” ±.01”
Reinforcement length ····· F: 4.00 ± .50mm



2.3 COMPOSITION

- Conductor: Material: Gold plated copper conductor
  Thickness: 0.018mm nominal
- Insulation tape: Material: Polyimide + Flame retardant adhesive
  Thickness: 0.025mm nominal
  Color: Orange - Brown
- Reinforcement tape: Material: Polyimide + Adhesive
  Thickness: 0.135mm nominal
  Color: Orange – Brown

2.4 Safety agency approvals

Not applicable.

3 RATINGS

3.1 Current and applicable conductors

Cross section	Amps
0.0018mm²	0.2

3.2 Temperature

Operating temperature: -40°C to +105°C

4 PERFORMANCE

4.1 Electrical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	**Conductor resistance**	20mV Maximum, 10mA Maximum	60 milliohm Maximum
2	**Insulation resistance cond. to cond.**	250 V DC between adjacent terminal and ground	50 Mohms Minimum
3	**Dielectric test**	Mate with molex series 502598 and apply 200 V AC for 1 minute between adjacent terminal or ground	No disruptive discharge
4	**Voltage rating**	Maximum 30°C heat rise at mate with Molex series 502598	50 V AC(rms)/DC MAXIMUM
5	**Current rating**		0.2 A MAX

4.2 Physical requirements

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6	**Temperature rating**		-40°C to +105°C
7	**Heat resistance**	Mate Molex series 502598 and expose to 85°C for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions 1 to 2 hours, after which the specified measurements shall be performed.	1) No Damage 2) contact resistance of 100 milliohm Maximum
8	**Thermal shock**	Mated Molex series 502598 and subject to the following conditions for 5 cycles. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room condition for 1 to 2 hours, after which the specified measurements shall be performed. 1 cycle 30 minutes at –55°C 5 minutes at +25°C 30 minutes at +85°C 5 minutes at +25°C	1) No Damage 2) contact resistance of 100 milliohm Maximum

9	**Cold coiling**	96 hours at –40°C / The sample will be wound on a 3mm dia. Mandrel	1) Insulation resistance (item 2 above) 2)Dielectric test(item 3 above) 3)Visual inspection
10	**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
11	**Folding**	The specimen shall be folded manually (Bending angle: 180° / Radius: 4mm)	20 times MINIMUM
12	**Moisture resistance**	Mate with Molex series 502598 and expose to 40°C, relative humidity 90 to 95% for 96 hours. Upon completion of the exposure period, the test specimens shall be conditioned at ambient room conditions for 1 hour, after which the specified measurements shall be performed.	1) No Damage 2) contact resistance of 100 milliohm Maximum 3) meet dielectric requirement (item 3 above) 4) insulation resistance be 20 Mohm Minimum

5 PACKAGING

According to MOLEX packaging specification: PK-15015-001

6 ROHS COMPLIANCE

Cable construction is RoHS compliant. This includes base FFC.