



# 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

REVISION: <b>A</b>	ECR/ECN INFORMATION: EC No: <b>USW2012-0123</b> DATE: <b>2011/11/01</b>	TITLE: <b>PRODUCT SPECIFICATION 0.30MM CENTER FFC JUMPER CABLE</b>	SHEET No. <b>1 of 5</b>
DOCUMENT NUMBER: <b>PS-15015-001</b>	CREATED / REVISED BY: <b>M. Imig</b>	CHECKED BY: <b>J. Wolfsberger</b>	APPROVED BY: <b>S. Fulton</b>



# PRODUCT SPECIFICATION

## 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

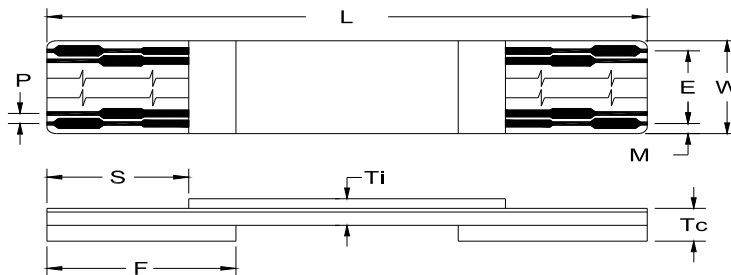
### 2.1 Product name and series number

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:  $0.30 \pm 0.05\text{mm}$
- Span ..... E:  $0.30 (N-1) \pm 0.10\text{mm}$
- Total width ..... W:  $0.30 (N+1) \pm 0.10\text{mm}$
- Margin width ..... M:  $0.30 + 0.15\text{mm} / -0.096\text{mm}$
- Exposed Contacts ..... S:  $3.00\text{mm} \pm .50\text{mm}$
- End thickness ..... Tc:  $0.80 \pm 0.05\text{mm}$
- Thickness - insulated area ..... Ti:  $0.12 \pm 0.05\text{mm}$
- Length ..... L: 2.00", 4.00", 6.00", 8.00", & 10.00"  $\pm .01$ "
- Reinforcement length ..... F:  $4.00 \pm .50\text{mm}$



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## 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
0.0018mm <sup>2</sup>	0.2

### 3.2 Temperature

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

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## 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

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9	<b>Cold coiling</b>	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	<b>Wear by abrasion</b>	Test following EN3475-503 Weight: 500g Speed: 60 cycles/min Abrasion tool: 0.13mm dia.	10000 cycles (standard) 1000 cycles (shielded) MINIMUM
11	<b>Folding</b>	The specimen shall be folded manually (Bending angle: 180° / Radius: 4mm)	20 times MINIMUM
12	<b>Moisture resistance</b>	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.

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