



# PRODUCT SPECIFICATION

## MALE CRIMP TERMINAL

### 1.0 SCOPE

This Product Specification covers the crimp terminal 70021-\*\*\*\* used with housings 70066-\*\*\*\* and 70107-\*\*\*\*.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 PRODUCT NAME AND SERIES NUMBER(S)

70021 Male, Crimp Terminal

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

**2.2.1** For information on dimensions see the individual sales drawings.

**2.2.2** Material: High strength copper alloy

**2.2.3** Plating

**2.2.3.1** *Tin*: 3.81 micrometers/150 microinches minimum tin plate overall over nickel underplate overall

**2.2.3.2** *30 Gold*: 0.76 micrometers/30 microinches minimum gold plate in contact area; 1.91 micrometers/75 microinches minimum tin plate in crimp area; over nickel underplate overall

**2.2.3.3** *15 Gold*: 0.38 micrometers/15 microinches minimum gold plate in contact area; 1.91 micrometers/75 microinches minimum tin plate in crimp area; over nickel underplate overall

**2.2.3.4** *Tin-Sel*: 3.81 micrometers/150 microinches minimum tin plate in contact area; 1.91 micrometers/75 microinches minimum tin plate in crimp area; over nickel underplate overall

**2.2.4** Mates with: Connector assemblies with terminals 70058-\*\*\*\* and 71851-\*\*\*\* female crimp, 70028-\*\*\*\* female IDT, and 40391-\*\*\*\* female FFC

**2.2.5** Connector to accept wire range from 36 to 20 AWG. For recommended wire types and crimp heights, contact the Molex Inside Sales department.

### 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

**3.1** Mil. Std. 202

### 4.0 RATINGS

#### 4.1 VOLTAGE & CURRENT

Dry Circuit: Open circuit voltage 20mV maximum

Short circuit current 20 mA maximum

REVISION: <b>F</b>	ECR/ECN INFORMATION: EC No: <b>UCP2010-0987</b> DATE: <b>2009 / 10 / 05</b>	TITLE: <b>Product Specification Male Crimp Terminal 70021</b>	SHEET No. <b>1 of 3</b>
DOCUMENT NUMBER: <b>PS-70021</b>	CREATED / REVISED BY: <b>MIBARRA</b>	CHECKED BY: <b>DMORGAN</b>	APPROVED BY: <b>SMILLER</b>



# PRODUCT SPECIFICATION

## 4.2 CURRENT AND APPLICABLE WIRES

AWG	Amps	AWG	Amps
36	0.2	28	1.2
34	0.3	26	1.8
32	0.5	24	3.0
30	0.7	22	3.0

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Contact Resistance @ Rated Current	Mate connectors: apply a maximum voltage of 20 mV at rated current.	10 milliohms MAXIMUM (change from initial)

### 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
2	Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	17.79 N (4 lbf) MINIMUM retention force
3	Durability – Tin Plate	Mate connectors up to 25 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
4	Durability – 30µ In. Gold Plate	Mate connectors up to 1000 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)

### 5.3 ENVIRONMENTAL REQUIREMENTS

Note: These Requirements apply to the 70021 terminal only

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
5	Shock (Thermal)	Mil Std. 202E, Method 107C, Condition A And Mil. Std. 202, Method 205, Condition A (15G)	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
6	Thermal Aging	Mate connectors; expose to: 168 hours at 105 ± 2°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
7	Humidity (Steady State)	Mil. Std. 202E, Method 103B, Condition A +40°C at 96% R.H. for 240 hours	10 milliohms MAXIMUM (change from initial) & Visual: No Damage

REVISION: <b>F</b>	ECR/ECN INFORMATION: EC No: UCP2010-0987 DATE: 2009 / 10 / 05	TITLE: <b>Product Specification Male Crimp Terminal 70021</b>	SHEET No. <b>2 of 3</b>
DOCUMENT NUMBER: <b>PS-70021</b>	CREATED / REVISED BY: <b>MIBARRA</b>	CHECKED BY: <b>DMORGAN</b>	APPROVED BY: <b>SMILLER</b>



# PRODUCT SPECIFICATION

Note: For Assembly (Housing / Terminal) environmental requirements see Product Specification PS-70400

## 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage. See Sales drawings for packaging specification.

REVISION: <b>F</b>	ECR/ECN INFORMATION: EC No: <b>UCP2010-0987</b> DATE: <b>2009 / 10 / 05</b>	TITLE: <b>Product Specification Male Crimp Terminal 70021</b>	SHEET No. <b>3 of 3</b>
DOCUMENT NUMBER: <b>PS-70021</b>	CREATED / REVISED BY: <b>MIBARRA</b>	CHECKED BY: <b>DMORGAN</b>	APPROVED BY: <b>SMILLER</b>