



# HARWIN

## Component Specification

**C05304**

Archer .8  
M58 Series 0.8mm Pitch Connectors  
November 2022

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## 1. DESCRIPTION OF CONNECTOR SYSTEM

The Archer .8 range consists of male and female connectors on 0.8mm pitch in a double row layout. Part numbers start with the series code M58. These connectors are designed for low profile, high density, mezzanine board-to-board applications. Polarization features on the connector housings and fully shrouded, recessed contacts protect against incorrect mating of the connectors.

The male contact is a blade design and the female contact is sprung, to ensure a secure connection with minimal contact wipe.

Connectors feature SMT terminations and location pegs, and are supplied in tape and reel packaging with stainless steel pick and place caps ready for high volume automated assembly. The contact area is gold plated for durability and conductivity, and the terminations are tin plated for improved surface mount soldering.

## 2. RATINGS

### 2.1. Materials

Contact .....	Phosphor Bronze, Gold flash over Nickel on contact area, 100% Tin over Nickel on terminations
Housing .....	40% Glass-Filled Thermoplastic, UL94V-0
Cap .....	Stainless Steel

### 2.2. Electrical Characteristics

Current Rating (EIA-364-70A: 1998) .....	0.5A max per contact
Dielectric Withstanding Voltage (EIA-364-20, 1mA max) .....	500V AC for 1 minute
Voltage Rating .....	100V DC or AC peak
Contact Resistance (EIA-364-23, 10mA max):	
Pre-conditioned .....	50m $\Omega$ max
Post Conditioning .....	100m $\Omega$ max
Insulation Resistance (EIA-364-21C) .....	1,000M $\Omega$ min at 500V

### 2.3. Environmental Characteristics

Operating Temperature Range .....	-40°C to +125°C
Vibration (EIA-364-28 Condition I) .....	10Hz to 55Hz, 1.5mm pk-pk displacement, 2 hours per axis
Mechanical Shock (EIA-364-27 Condition A) .....	490m/s <sup>2</sup> (50G) in all axes with 1 $\mu$ sec max discontinuity
Thermal Shock (using methodology of EIA-364-32 Condition I) .....	-40°C to +125°C, 5 cycles, 30 mins each extreme
Temperature Life .....	+125°C for 96 hours, -40°C for 96 hours
Humidity (EIA-364-31B Condition A Method II) .....	90-95% RH at +40°C for 120 hours
Salt Spray (in general accordance with EIA-364-26) .....	24 hours at +35°C, concentration 5%

### 2.4. Mechanical Characteristics

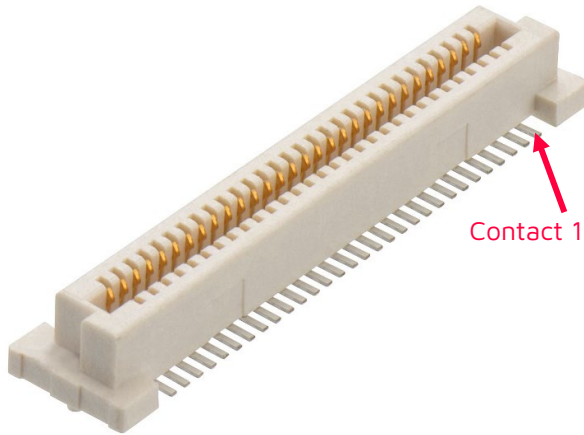
Durability (EIA-364-09C) .....	30 operations
Insertion Force (initial, per contact EIA-364-13C *) .....	1.0N max
Withdrawal Force (per contact EIA-364-13C *) .....	0.1N min

*\* per contact when fully assembled connector is being mated and un-mated.*

**APPENDIX 1 – CONTACT NUMBERING**

Contact numbering is used to confirm correct placement within the Tape & Reel packaging – no further numbering method is established for the rest of the contacts.

Female Connector



Male Connector

