

# CERTIFICATE OF COMPLIANCE

**Certificate Number** 20141215-E28476  
**Report Reference** E28476-20141204  
**Issue Date** 2014-DECEMBER-15

**Issued to:** TYCO ELECTRONICS CORP  
2901 FULLING MILL RD, MIDDLETOWN PA 17057-3170

**This is to certify that representative samples of** COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL AND POWER APPLICATIONS  
Multi-Beam HD Connectors

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

**Standard(s) for Safety:** UL 1977 - Component Connectors for Use in Data, Signal, Control and Power Applications

**Additional Information:** See the UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Assistant Chief Engineer, Global Inspection and Field Services  
UL LLC

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File E28476  
Project 4786597197

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REPORT

on

COMPONENT - Connectors for Use in Data, Signal, Control and Power  
Applications

Tyco Electronics Corp  
MIDDLETOWN PA 17057-3170

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## DESCRIPTION

## PRODUCT COVERED:

USR Component Connector, Multi-Beam HD Connectors.

## GENERAL:

These devices are multi-pole connectors intended for factory assembly on printed wiring boards. These connectors may have a maximum of 15 Signal contacts on each side, 8 Low Power pitch 5.00 mm contacts, 8 Low Power pitch 3.00 mm contacts and 8 Power pitch 6.00 mm contacts or a maximum of 15 Signal contacts on each side, 4 Power pitch 7.00 mm contacts and 8 Power pitch 5.00 mm contacts. The acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

## RATINGS:

Series	Contact	Maximum Number of Contacts	Voltage	Ampere (A)
Multi-Beam HD Connectors	Power Contact, pitch 5 mm	8	125 Vdc	100
	Power Contact, pitch 6 mm	8	250 Vac	100
	Power Contact, pitch 7 mm	4	300 Vac	100
	Low Power Contact, pitch 3 mm	8	100 Vdc	20
	Low Power Contact, pitch 5 mm	8	300 Vac	20
	Signal Contact	2*15	60 Vdc	1

Disconnecting Use - see Sec Gen for required marking

## TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC.

Conditions of Acceptability - The following are among the considerations to be made when evaluating the device in the end-use product.

## Interruption of Current

1. These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.

## Current-Carrying Capability and Current Ratings

3. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise values tabulated below.

Cat Nos.	Contact	Current, A	Maximum Temperature, °C
2204442-1 mating with 2204402-1	Power Contact, pitch 6 mm	100	80.94
	Low Power Contact, pitch 5 mm	20	80.10
	Low Power Contact, pitch 3 mm	20	80.94
	Signal Contact	1	80.10
2204440-2 mating with 2204400-2	Power Contact, pitch 7 mm	100	79.75
	Power Contact, pitch 5 mm	100	85.60
	Signal Contact	1	68.80

## Insulating Materials

4. These devices employ insulating materials with properties as tabulated below at the minimum thickness employed in the connector housing, the suitability of the insulating materials based on the documented values shall be determined in the end-use application. Please note the values specified in the table when multiple materials are indicated represent the minimum values for the group of materials.

Series	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, °C
Multi-Beam HD Connectors	A for Body	0.85 mm	V-0	2	0	240	125

(#) - Code for Insulating Body Material.

- A. Tyco Raw Material (R/M) PN 1573878-2.  
 1. Dielectric strength (kV/mm): 39  
 2. CTI: 4

## Mating Connectors

5. These devices have only been assessed for use with specific types of connectors within their product family. They have not been assessed to operate with any other similar devices from any other manufacturer.

## Miscellaneous

6. The enclosure of the device has live parts that may be exposed to user contact when the connector is energized. The device is suitable for use only within an acceptable enclosure.