CERTIFICATE OF COMPLIANCE

Certificate Number 20130822-E28476

Report Reference E28476-20130822

Issue Date 2013-AUGUST-22

Issued to: TYCO ELECTRONICS CORP

2901 FULLING MILL RD MIDDLETOWN PA 17057

This is to certify that representative samples of

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL AND POWER APPLICATIONS LCD Coaxial Embedded Display Interface (LCEDI)

Connector.

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: Standard for Component Connectors for Use in Data,

Signal, Control and Power Applications, UL 1977.

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

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

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: ¶, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

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 Recognized Component Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

William R. Carney

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at www.ul.com/contactus



File E28476 Vol. 1 Sec. 96 Page 1 Issued: 2013-08-22 and Report

DESCRIPTION

PRODUCT COVERED:

 \mbox{USR} - Component Connectors, LCD Coaxial Embedded Display Interface (LCEDI) Connector.

GENERAL:

These devices are multi-pole connectors intended for factory assembly on printed wiring boards where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

File E28476 Vol. 1 Sec. 96 Page 2 Issued: 2013-08-22 and Report

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.

Insulating Materials

- 1. The insulating materials used in these devices comply with the requirements of UL 1977.
- 2. The operating temperature of these devices should not exceed the RTI Electrical ratings of the insulating materials. These materials may be used interchangeably at a maximum temperature of 130°C.
- 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.

Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec ⁰ C	Max Operating Temp, ⁰ C
А	0.07 mm	-	-	-	130	130

Note:

- (#) Code for Insulating Body Material.
 - A. Insulating Material of Housing
 Tyco Raw Material (R/M) PN 2136053-1
 - 1. Dielectric strength (kV/mm): -
 - 2. CTI: -

File E28476 Vol. 1 Sec. 96 Page 3 Issued: 2013-08-22 and Report

Current-Carrying Capability and Current Ratings

4. These devices have not been subjected to the Temperature test and as a result do not have an assigned current rating. The device's current-carrying capability is to be reviewed in the end-use by measuring temperatures on the connector housing and/or terminals when current is flowing through the connector under conditions of normal use.

Interruption of Current

5. These devices have not been tested for interrupting the flow of current by connecting or disconnecting the mating connector. These devices should be used only where they will not interrupt the flow of current.

Spacings and Voltage Ratings

- 6. Dielectric-Voltage-Withstand testing has not been performed.
- 7. These devices have live parts that may be exposed to user contact when the connector is energized. They are intended for use only within a complete enclosure.

Terminations

8. The printed-wiring-board terminals have not been evaluated for mechanical secureness. The construction of the connector is to be reviewed when it is assembled to the particular printed wiring board used in the end-use application.

Mounting

- 9. The suitability of the mounting means shall be determined in the end use.
- 10. The placement of these devices within the equipment enclosure should be such that spacings between the live parts and the equipment are suitable for the particular application.
- 11. The electrical and mechanical contact between the connector and the printed wiring board is to be judged in the end-use equipment.
- 12. The need to provide additional mounting hardware to mechanically secure the connector to the printed wiring board is to be determined in the end-use.

Variations may consist of alternate colors, alternate mounting: hybrid, through-hole, press-fit, surface mount, and straddle mount. Variations may also include different types of hold-downs, solder tail lengths, boss lengths, or different connector outlines.