

File E28476  
Project 10ME06899

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REPORT

on

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

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Harrisburg, PA

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## DESCRIPTION

## PRODUCT COVERED:

USR, CNR Component Connector, Series Multi-Beam XLE, Cat. Nos. 1892903-1, 3-6450830-0, x-22049xx-x and x-23220xx-x.

**USR, CNR Component Connector, Series Multi-Beam XLE, Cat. Nos. 2365243-x(assembled with contact 1600960-x), 6450834-x.**

## GENERAL:

Cat. No. 3-6450830-0 is a multi-pole connector intended for factory assembly on printed wiring boards and Cat. No. 1892903-1 is a multi-pole connector intended for factory assembly on No. 10 AWG stranded copper conductors where the acceptability of combinations is determined by Underwriters Laboratories Inc. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

CNR indicates investigation to Canadian National Standards, C22.2 No. 182.3.

## \*RATINGS:

Cat. No.	Rating	
	Voltage (V)	Current (A)
1892903-1, 3-6450830-0	75	10
	300	2.2

Cat. No.	Type of Contact	Maximum Number of Contacts	Voltage Rating, Vac/dc
x-22049xx-x, x-23220xx-x	ACP	15	1500
	S	12	-
	LP	2	-

NOMENCLATURE: The Series x-22049xx-x and x-23220xx-x are designated as follows:

x can be 0-9 to represent series code, with no change to construction or electrical rating.

\*

Cat. No.	Type of Contact	Maximum Number of Contacts	Number of Contacts with Current	Rating		Wire size, AWG
				Voltage (V)	Current (A)	
2365243-x	Power	8	8	250	160 for four pins (per pin 40)	8
	Signal	20	20	60	-	22
6450834-x	Power	8	8	250	160 for four pins (per pin 40)	-
	Signal	20	20	60	-	-

NOMENCLATURE: The Series 2365243-x and 6450834-x are designated as follows:

x can be 0-9 to represent different positions (power  $\leq 8$ , signal  $\leq 20$ ), no construction or electrical rating changed.

## 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 Underwriters Laboratories Inc.

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. Cat. Nos. 1892903-1 and 3-6450830-0 are suitable for interrupting the flow of current by connecting or disconnecting the mating connector.
2. Cat. Nos. 1892903-1 and 3-6450830-0 have been tested for 250 make-and-break cycles of interrupting a current of 15 A at 75 Vdc by connecting and disconnecting the mating connector.
3. Cat. Nos. 1892903-1 and 3-6450830-0 have been tested for 250 make-and-break cycles of interrupting a current of 3.3 A at 300 Vdc by connecting and disconnecting the mating connector.

## Current-Carrying Capability and Current Ratings

4. Cat. Nos. 1892903-1 and 3-6450830-0 have been subjected to the Temperature test with the rated currents and maximum temperature rise values tabulated below.

Cat Nos.	Current, A	Maximum Temperature, °C	Maximum Temperature Rise, °C
1892903-1 and 3-6450830-0	10	31.8	6.8
	2.2	35.2	10.2

- 4A. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise and recorded temperature (adjusted to 25°C ambient) values tabulated below:

Cat Nos.		Contact type	Wire Size, AWG	Current, A	Maximum Temperature °C		Represent Series/Cat. Nos.
					Rise	Recorded Temperature	
2365243-2 (with terminal 1600960) mating with 6450834-7	2365243-2 (with terminal 1600960)	Power contact	8	160	27.4	52.4	2365243-X
		Signal contact	-	-	-	-	-
	6450834-7	Power contact	8	160	19.1	44.1	6450834-X
		Signal contact	-	-	-	-	-

## Insulating Materials

5. 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.

Cat. No.	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec °C	Max Operating Temp, °C
1892903-1, 3-6450830-0	A	0.75 mm	V-0	0	0	140	120
x-22049xx-x, x-23220xx-x	B	0.75 mm	V-0	0	0	140	125
<b>2365243-x</b>	<b>C</b>	<b>0.95 mm</b>	<b>V-0</b>	<b>2</b>	<b>3</b>	<b>130</b>	<b>120</b>
<b>6450834-x</b>	<b>A</b>	<b>0.75 mm</b>	<b>V-0</b>	<b>0</b>	<b>0</b>	<b>140</b>	<b>120</b>

\*

(#) - Code for Insulating Body Material.

- A. R/M No. 704968 (color: black)
  - 1. Dielectric strength (kV/mm): -
  - 2. CTI: 1
- B. R/M No. 2136739
  - 1. Dielectric strength (kV/mm): -
  - 2. CTI: 0
- C. **R/M No. 1573672**
  - 1. Dielectric strength (kV/mm): -**
  - 2. CTI: 0**

#### Miscellaneous

- 6. Cat. No. 1892903-1 is not suitable for use other than No. 10 AWG Conductors.
- 7. Cat. No. 1892903-1 employs individual power contacts which are intended for crimp termination on No. 10 AWG stranded copper wire using the tooling shown in Ill. 5.
- 8. Cat. No. 2365243-X(with terminal 1600960) is not suitable for use other than No. 8 AWG Conductors.
- 9. Cat. No. 2365243-X(with terminal 1600960) employs individual power contacts which are intended for crimp termination on No. 8 AWG stranded copper wire using the tooling (TE: 1385637-3) shown in Ill. 17.

8. 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.
9. The suitability of connector mounting means to the printed wiring board have not been evaluated and shall be evaluated in the end use product.

10. The electrical and mechanical contact between the connector and the printed wiring board is to be judged in the end-use equipment.
11. The printed wiring boards used in the end-use shall have suitable temperature ratings, refer to COA #4 for temperature determination.