



## 2.00 mm (.079") Pitch EMILY™ Low Profile Cable Connector Front I/O – EMI proof

**85372**

### EMILY™ Signal Cable Assemblies

**Low Profile EMILY™ Front I/O Connector System combines SMT Pick & Place Board Connectors with shallow positive lock Cable Connectors**

EMILY™ connectors were designed in cooperation with a major telecom equipment manufacturer. The requirement was to combine Signal (6 × 622 Mbps or 4 × 1.2 Mbps), Hybrid (4 controls plus 2 × 5 A), and Power (2 × 25 A) requirements in one connector system which allows fully automated production of daughter cards (SMT Pick & Place) in a high density shelf system with 15 mm board-to-board spacing. Board connectors come in tape & reel packaging for fully automated production. Cable connectors use fully EMI proof die casted shells with a positive latching system for easy installation.

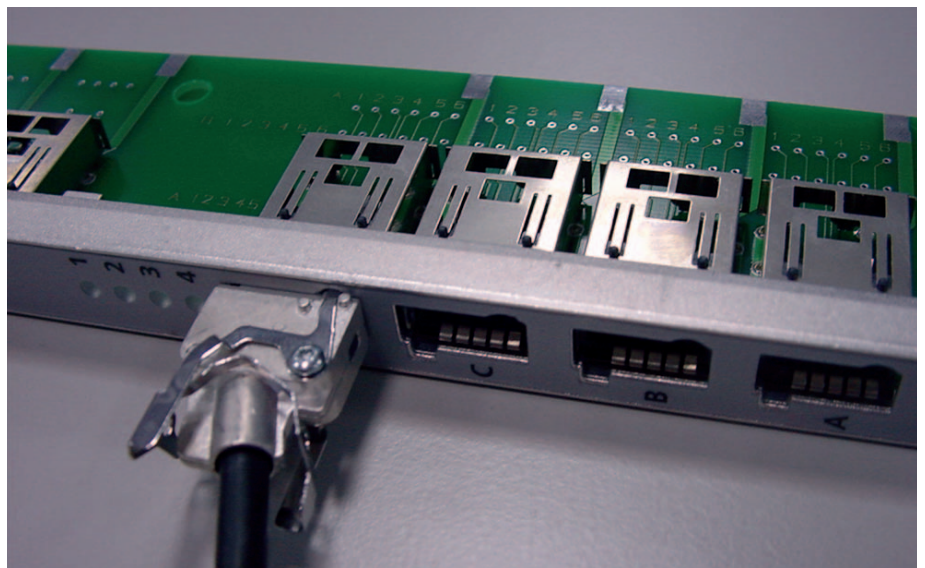
#### Features and Benefits

- Low profile, for use with 15 mm front-panel
- 2.00 mm × 2.00 mm grid spacing
- Complete connector family including Signal, Hybrid and Power
- Full EMI shielding by rugged diecast housing
- Polarized mating face
- Cable outlet up- or down-wards
- Latching device for secure mating
- Unlock without tool
- Data rates up to 622 Mbps
- Cable pull is secured by locking system to front panel; no stress on solder joints
- Accommodates STP (Shielded Twisted-Pair) Cable, AWG 30
- Standard cable impedances ranging from 100 Ω to 120 Ω



#### APPLICATIONS

- Base Stations
- Switching equipment
- Box-to-Box high speed links
- DC Power supplies
- Fan units
- Industrial Controls
- Sensors & Motion Devices
- Medial Equipment



## SPECIFICATIONS



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### Reference Information

Product Specification: PS 85372-001

Packaging: bag/box

Mates with: 85349

Designed in: Millimeters

### Mechanical

Wire Pull-Out Force: 100 N min

Mating Force: 0.6 N max/contact

Unmating Force locked: >120 N

Unmating Force: 0.1 N min/contact

Durability: 200 cycles

### Electrical

Voltage: 30 Vrms

Current: 0.5 A/contact

Contact Resistance: 35 milliohms max/contact

Dielectric Withstanding Voltage: 500 Vrms

Insulation Resistance: 5000 Megaohms min.

### Physical

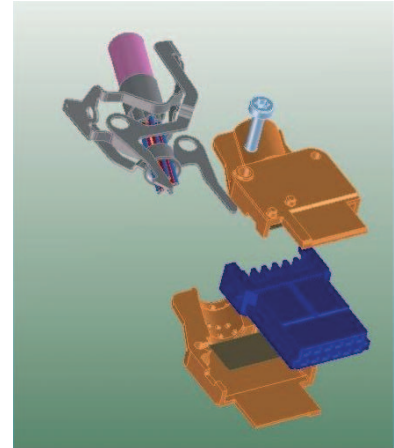
Housing: glass-filled Liquid Crystal  
Polymer, UL 94V-0

Contact: CuSn Alloy

Plating: Selective Gold plating 0.76 µm min.

Operating Temperature: -20 to +85 °C

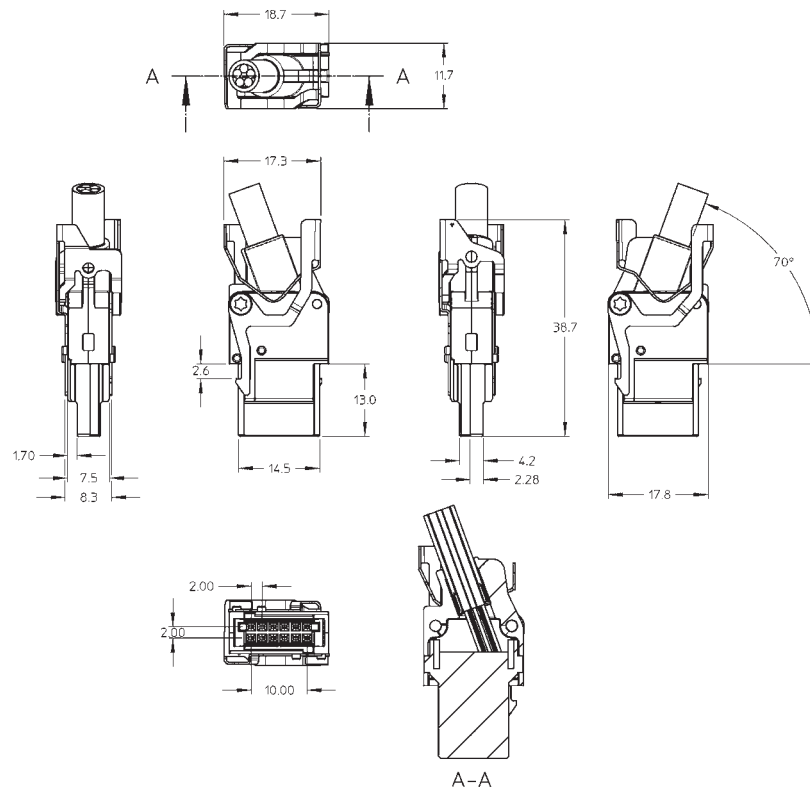
max. Operating Temperature: -20 °C to +70 °C



## ORDERING INFORMATION AND DIMENSIONS

Circuits	Loaded Contacts	No. of Signals	Order No.	Description
12	12	6x622/4x1.2	85372-xxxx	EMILY Signal Cable Assemblies

### Dimensions Signal Connector 85372-xxxx



## Electrical Test Data: EMILY™ Signal

### Test sample:

- Cable: AWG 30, Impedance 100 Ohms  $\pm$  10 Ohms, twisted pair
- Connector: EMILY™ Signal Connector (85352-0001)
- Length of Cable Assembly: 5 m

### Input:

- Data Pattern: PRBS 7
- Signal Input: 1 V peak to peak
- Bit Rate: 155 Mbps

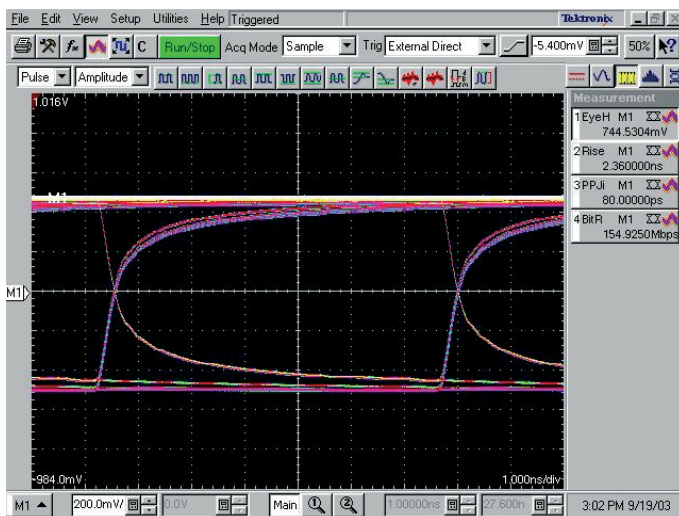


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## EMILY™ Signal Cable Assemblies

### EYE PATTERN



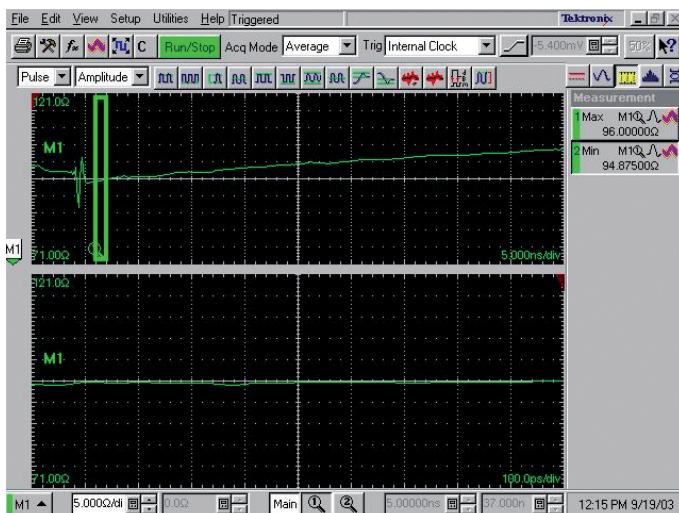
### Output:

- Output Eye: 744 mV
- Rise Time: 2,36 ns
- Length of Cable Assembly: 5 m

### Input:

- Data Pattern: PRBS 7
- Signal Input: 1 V peak to peak
- Bit Rate: 155 Mbps

### IMPEDANCE



### Results:

- Minimum Impedance: 94,8
- Maximum Impedance: 96



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