

QSL RF Connector System

DESCRIPTION

Coaxial Cable Insulation Displacement Interface

- Low profile
- Highly reliable ruggedized interface
- Surface mount technology
- Excellent price-to-performance ratio

APPLICATIONS

- Replacements for SMA, BNC, and other RF Connectors
- Mobile Antenna / GPS / Radio Systems
- PDA / PCS / Handheld applications
- Wireless Communications systems
- Satellite Communications, Broadcast, Multimedia
- Automotive Telematics
- WiFi, WiMax Antenna Mobility & Communications
- Broadcast / Set Top Box and Integration Media
- PCIe and WNIC Cards

KEY FEATURES

- Surface and Panel Mount Compatible
- RoHS Compliant [Lead-free SMT process (260° C) compatible]
- Designed for RG 174 & RG 316 Cable
- 3 port QSL footprint
12.5 mm D x 17.5 mm W x 10mmH
- 10 mm x 10.6 mm max. footprint (w/o panel extension)
- IP67 compatible designs available upon request
- Platform expandable for multiple ports, configuration, and color options

FOR MORE INFORMATION

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<http://tycoelectronics.com/products/rfcoax>

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Product Specification/ Design Objectives:

108-2324 PCB Receptacles

108-2302 Panel Mount Receptacles

108-2307 Antennas

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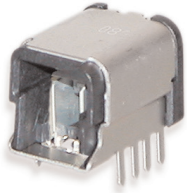
Asia Product Manager — Alex Yeh

Phone: 2-87682788 EXT297

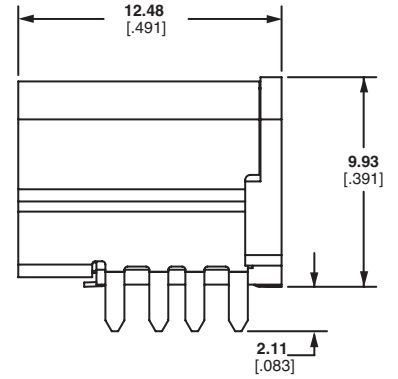
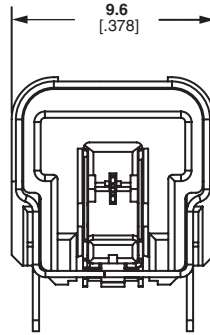
E-mail: alex.yeh@tycoelectronics.com

PCB RECEPTACLES

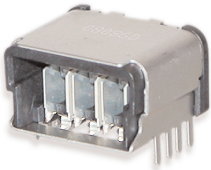
Single Port Receptacle



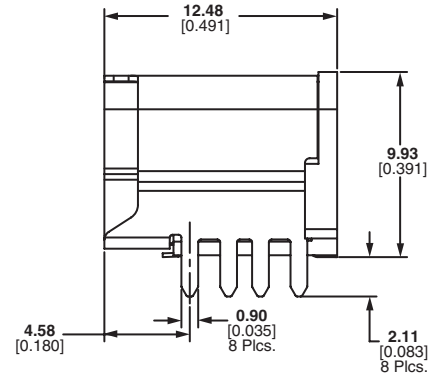
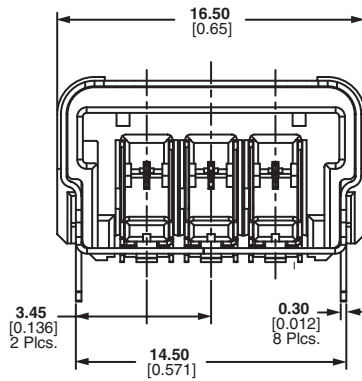
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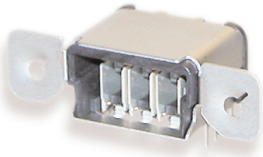
Three Port Receptacle



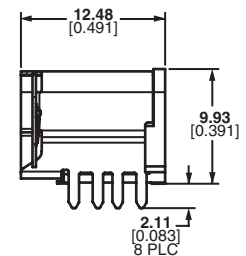
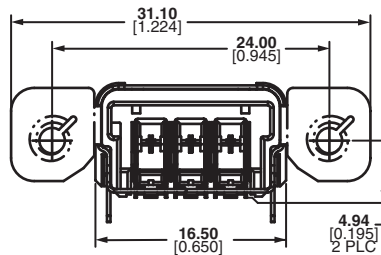
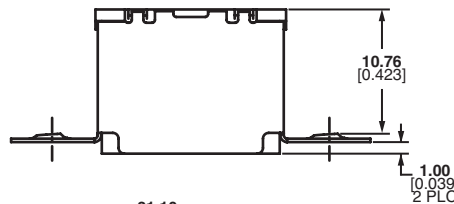
Part Number
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Three Port Flange Receptacle



Part Number
1274824-2



Dimensions are millimeters over inches unless otherwise specified.

ELECTRICAL

SINGLE PORT BOARD MOUNT

THREE PORT BOARD MOUNT

| | | |
|-------------------------------|------------------|------------------|
| Characteristic Impedance: | 50 Ohms* | 50 Ohms* |
| Frequency Range: | DC — 6 GHz | DC — 6 GHz |
| VSWR:** | | |
| DC — 3 GHz | 1.3 max | 1.3 max |
| 3 — 6 GHz | 1.45 max | 1.45 max |
| Insertion Loss: | | |
| DC — 3 GHz | 0.30 dB max | 0.30 dB max |
| 3 — 6 GHz | 0.40 dB max | 0.40 dB max |
| Rated voltage: | 60 VAC (rms) | 60 VAC (rms) |
| Rated Current Per Port: | 5 A max | 5 A max |
| Diel. Withstanding Voltage: | | |
| (50Hz for 1 min at sea level) | 800 VAC | 800 VAC |
| Insulation Resistance: | 100 Megohms min | 100 Megohms min |
| Contact Resistance: | | |
| Center: | 20 milliohms max | 20 milliohms max |
| Outer: | 20 milliohms max | 20 milliohms max |

*75 Ohm available upon request

** Mated Pair

MECHANICAL/ ENVIRONMENTAL

SINGLE PORT

THREE PORT

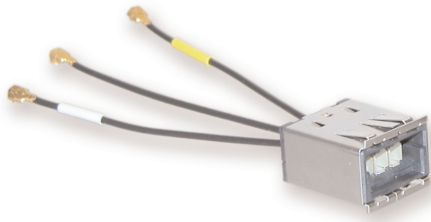
| | | |
|------------------------|----------------|----------------|
| Engagement Force: | < 30 N | < 40 N |
| Disengagement Force: | < 20 N | < 30 N |
| Cable Retention: | > 89 N | > 110 N |
| Operating Temperature: | - 40 to + 85°C | - 40 to + 85°C |
| Durability: | 500 cycles | 500 cycles |

MATERIAL AND FINISH

| Part Description | Material | Finish |
|-------------------------------------|--------------|-----------------|
| Housing (Cable Plug) | PBT | Black, UL 94V-0 |
| Housing (Receptacle) | LCP | Black, UL 94V-0 |
| Hold Downs / Shell | Copper Alloy | Sn over Ni |
| Shield & Strain Relief (Cable Plug) | Copper Alloy | * |
| Shield (Recpt) | Copper Alloy | * |
| Center Contact (Cable and recpt) | Copper Alloy | * |
| Insulator (Cable Plug) | PBT | Black UL 94HB |

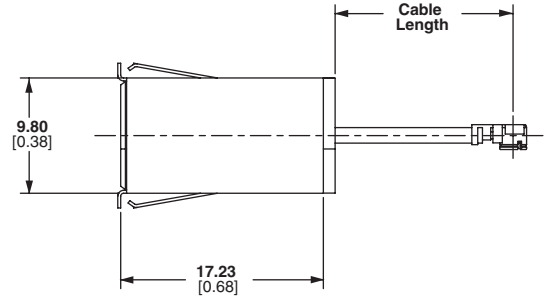
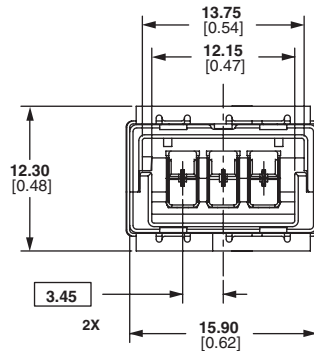
* Conforms to the requirements of EIA/ECA-364-1000.01A (controlled environment applications), and Tyco Electronics production specification 108-2324.

CABLE ASSEMBLIES, RECEPTACLE, PANEL MOUNT, 3 PORT PUSH IN



QSL Vista

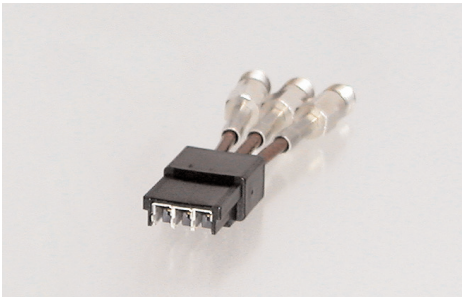
For Standard PCI Brackets (1.00mm THR)



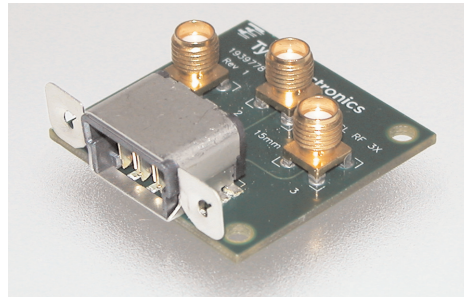
| Part Number | Cable Length |
|-------------|-----------------|
| 1274999-1 | 63.5mm [2.5"] |
| 1274999-2 | 130.0mm [5.12"] |
| 1274999-3 | 508.0mm [20.0"] |

Note: Pigtails use 1.32mm dia, double braid coax cable and are terminated with Style A UMCC cable connectors.

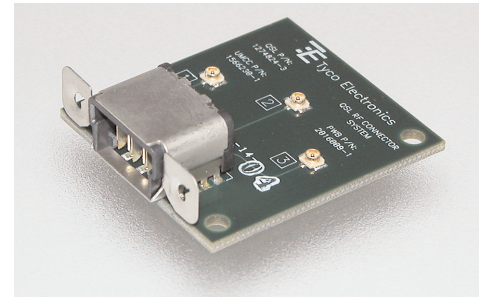
QSL CONNECTOR MATED PAIR VSWR TEST BOARDS



Test dongle, QSL to SMA
Part Number 2032605-1



Test board with Receptacle,
QSL to SMA
Part Number 1513743-1



Test board with Receptacle,
QSL to UMCC
Part Number 2016008-1

Technical Documents:

Instruction Sheet:

408-10212 QSL Connector Mated Pair
VSWR Test Procedure

JUMPER AND PIGTAIL CABLE PLUG ASSEMBLIES

All jumpers and pigtails use RG-174 cable.

QSL Single Port Jumper Cable Plug Assembly



Part Number
2015911-1

QSL Single Port Pigtail Cable Plug Assembly



Part Number
2015706-1

QSL Three Port Without Flange Pigtail Cable Plug Assembly



Part Number
2015518-1

QSL Three Port With Flange Pigtail Cable Plug Assembly



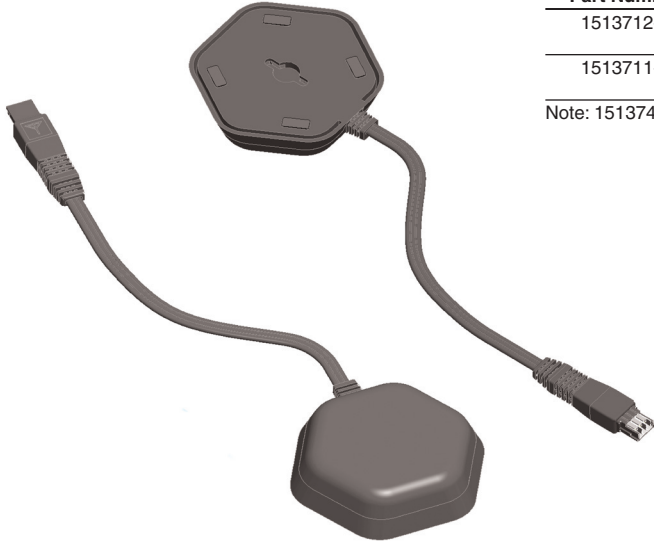
Part Number
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FOR MORE INFORMATION ON QSL CABLE ASSEMBLY APPLICATION CONTACT

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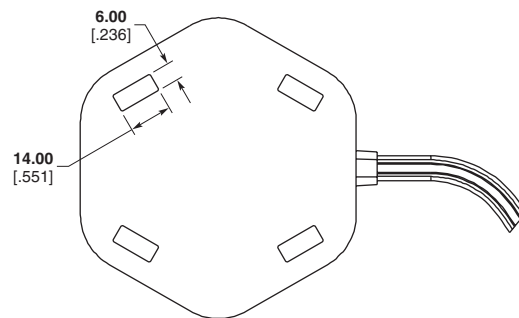
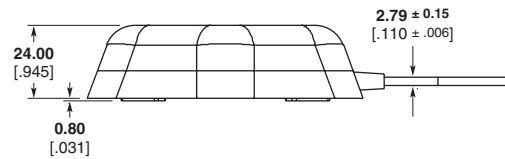
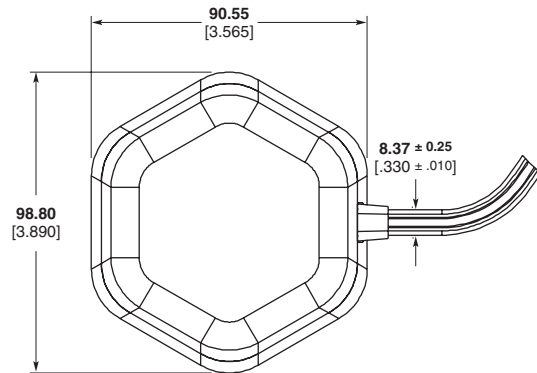
3 PORT CABLE PLUG WITH ANTENNA MODULE ASSEMBLY

Straight Cable Plug 3 port with Antenna Module Assembly



| Part Number | Cable | Length | Antenna Type |
|-------------|--------|------------|--|
| 1513712-1 | RG-174 | 0.8 meters | 802.11 a/b/g/n and WiMax antenna assembly w/flange |
| 1513711-1 | RG-174 | 0.8 meters | 802.11 a/b/g/n and WiMax antenna assembly w/o flange |

Note: 1513743-1 Test Board Adapter Available for VSWR Testing



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Dimensions are millimeters over inches unless otherwise specified.

3 PORT CABLE PLUG WITH ANTENNA MODULE ASSEMBLY

MIMO Triple Dipole 802.11a/b/g/n Antenna Module Assembly with 3 Port QSL Connector



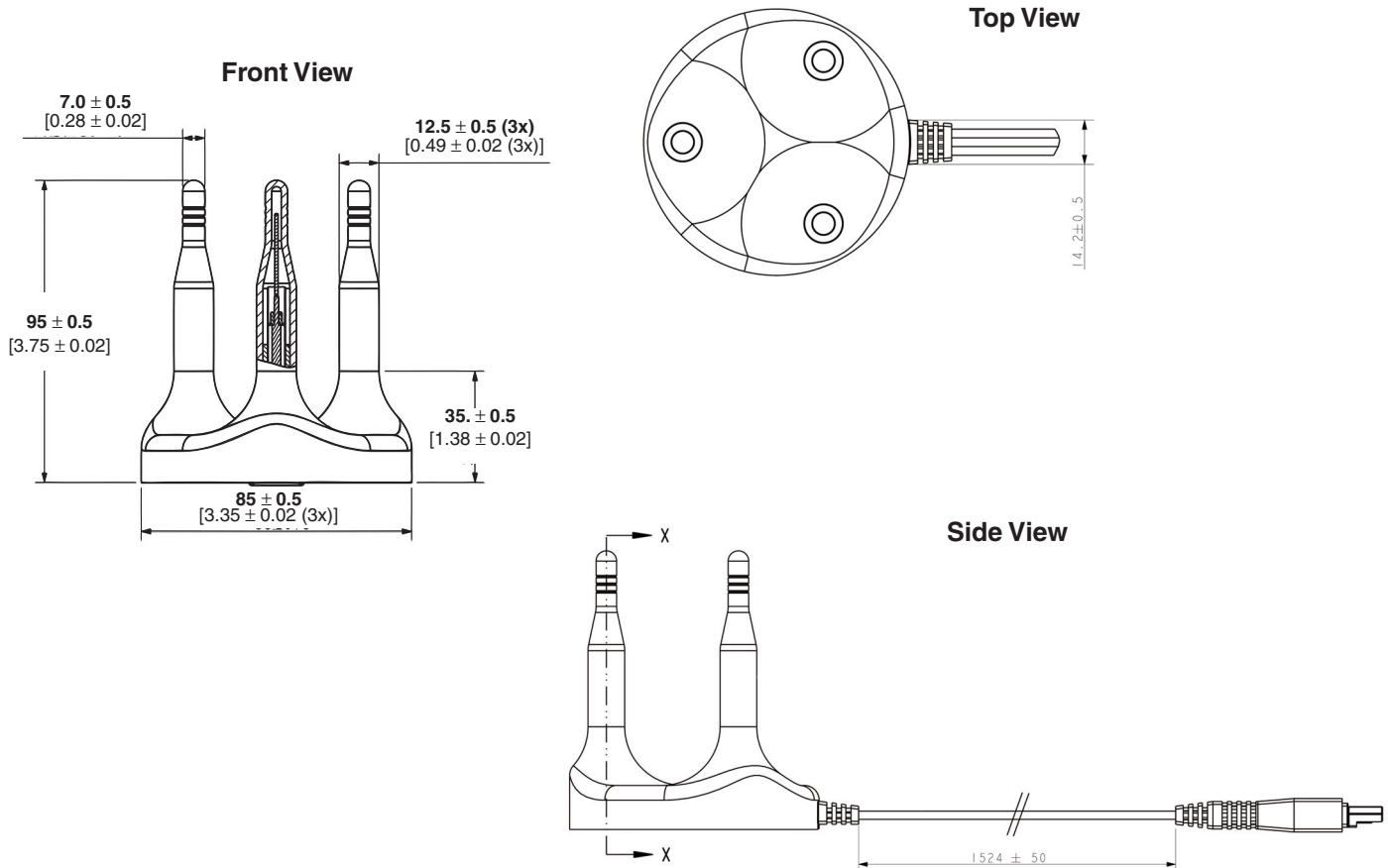
3X RGI74 flat terminated with Tyco Electronics 3-port QSLConnector

Specifications

| | |
|----------------------------------|------------------------------------|
| Frequency Range (GHz) | 2.4 – 2.4835; 4.9 – 5.875 GHz |
| Azimuth Gain at connector (Ave.) | -2 dBi @ 2.4 GHz -4 dBi @ 5 GHz |
| Return Loss | < -10 dB |
| VSWR | < 2.0:1 |
| Operating Temperature | -40°C to 70°C |
| Polarization | Vertical |
| Power Handling | 10 Watts max. |
| Feed Point Impedance | 50 Ohms |
| Size | 95mm x 85mm dia. |
| Weight | 180g. |

| Part Number | Cable |
|-------------|-------------------------|
| 1513837-1 | 3X RG-174 or equivalent |

Note: 1513743-1 Test Board Adapter Available for VSWR Testing



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