RoHS Ready

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

Internet
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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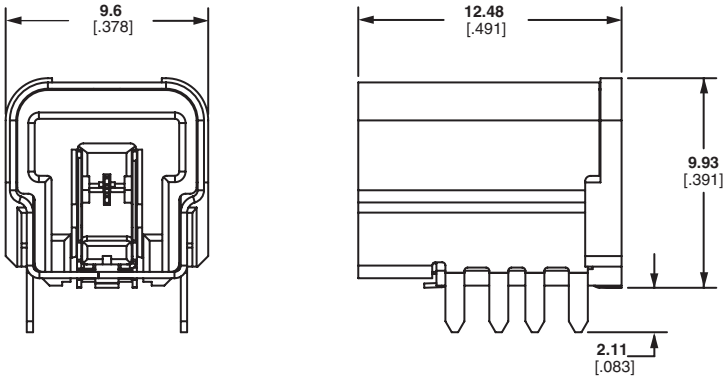
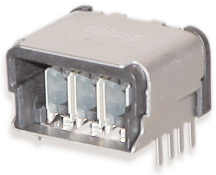
PCB RECEPTACLES

Single Port Receptacle

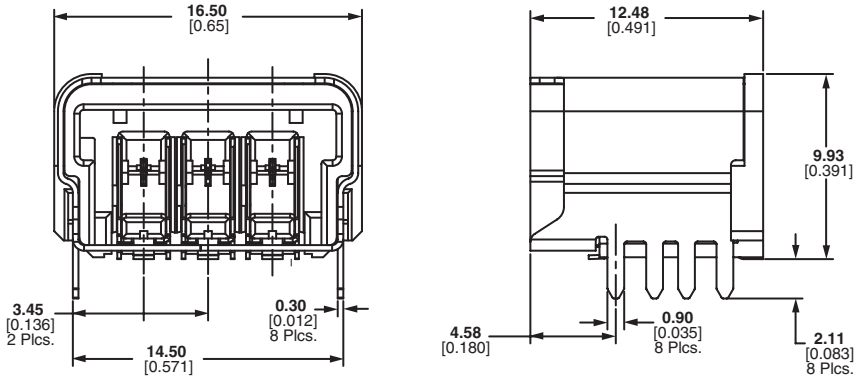
Part Number
1274794-1



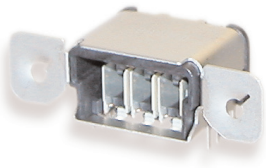
Three Port Receptacle



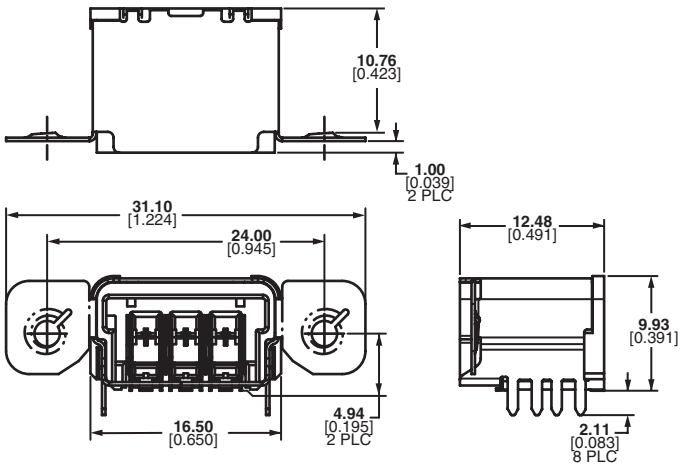
Part Number
2016032-1



Three Port Flange Receptacle



Part Number
1274824-2



Dimensions are millimeters over inches unless otherwise specified.

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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

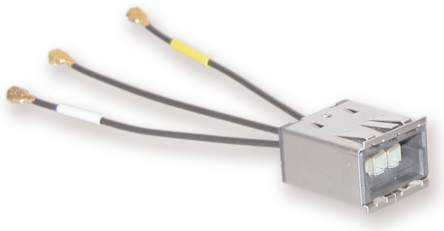
MECHANICAL/ ENVIRONMENTAL	SINGLE PORT	THREE PORT
Engagement Force:	< 30 N	< 40 N
Disengagement Force:	< 20 N	< 30 N
Cable Retention:	> 89 N	> 110 N
Operating Temperature:	- 40 to + 85°C	- 40 to + 85°C
Durability:	500 cycles	500 cycles

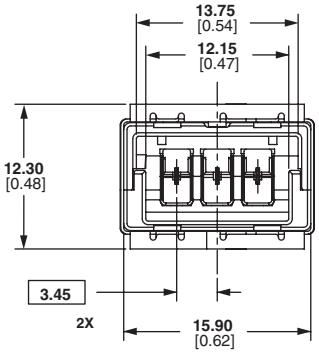
MATERIAL AND FINISH

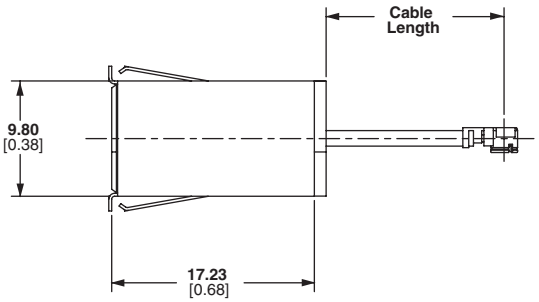
Part Description	Material	Finish
Housing (Cable Plug)	PBT	Black, UL 94V-0
Housing (Receptacle)	LCP	Black, UL 94V-0
Hold Downs / Shell	Copper Alloy	Sn over Ni
Shield & Strain Relief (Cable Plug)	Copper Alloy	*
Shield (Recpt)	Copper Alloy	*
Center Contact (Cable and recpt)	Copper Alloy	*
Insulator (Cable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







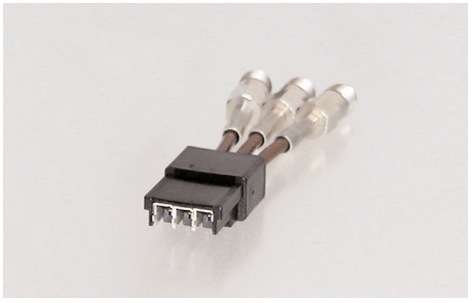
QSL Vista

For Standard PCI Brackets (1.00mm THR)

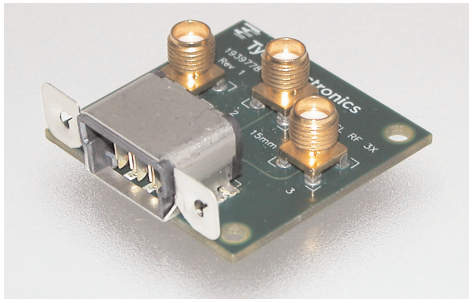
Part Number	Cable Length
1274999-1	63.5mm [2.5″]
1274999-2	130.0mm [5.12″]
1274999-3	508.0mm [20.0″]

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

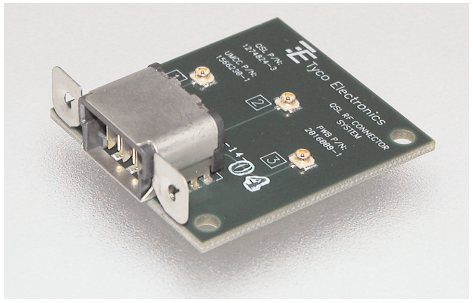
QSL CONNECTOR MATED PAIR VSWR TEST BOARDS



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

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JUMPER AND PIGTAIL CABLE PLUG ASSEMBLIES

All jumpers and pigtails use RG-174 cable.

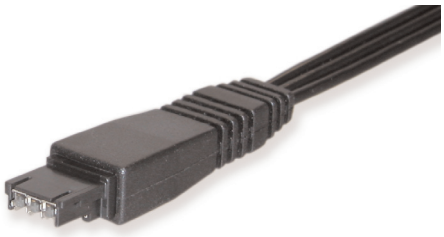
QSL Single Port Jumper Cable Plug Assembly

Part Number
2015911-1

QSL Single Port Pigtail Cable Plug Assembly

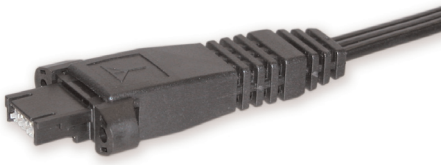
Part Number
2015706-1

QSL Three Port Without Flange Jumper Cable Plug Assembly



Part Number
2015518-1

QSL Three Port With Flange Pigtail Cable Plug Assembly



Part Number
2053075-1

FOR MORE INFORMATION ON QSL CABLE ASSEMBLY APPLICATION CONTACT

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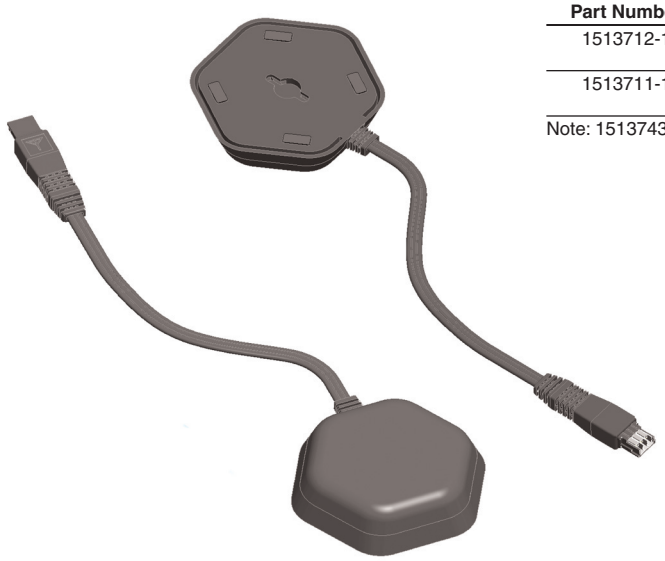
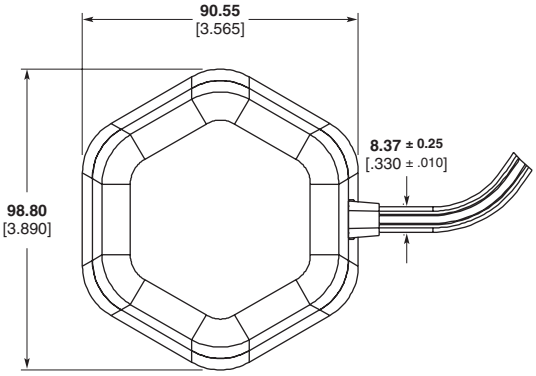
3 PORT CABLE PLUG WITH ANTENNA MODULE ASSEMBLY

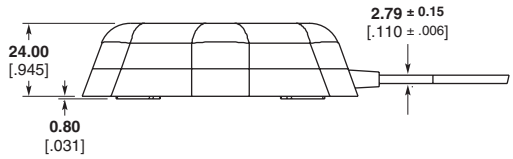
Straight Cable Plug 3 port with Antenna Module Assembly

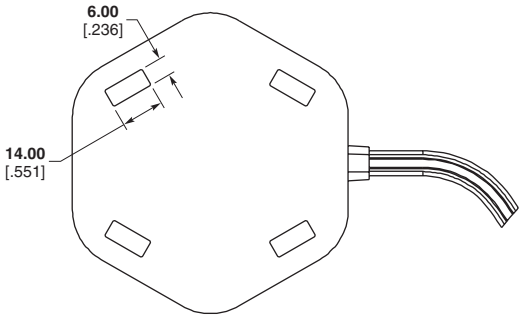


Part Number	Cable	Length	Antenna Type
1513712-1	RG-174	0.8 meters	802.11 a/b/g/n and WiMax antenna assembly w/flange
1513711-1	RG-174	0.8 meters	802.11 a/b/g/n and WiMax antenna assembly w/o flange

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







Dimensions are millimeters over inches unless otherwise specified.

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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

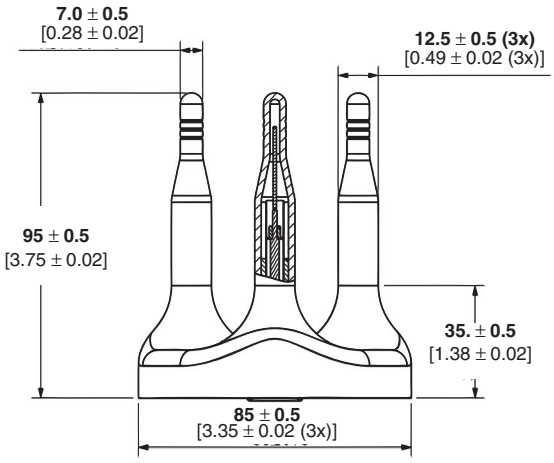
Specifications

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.

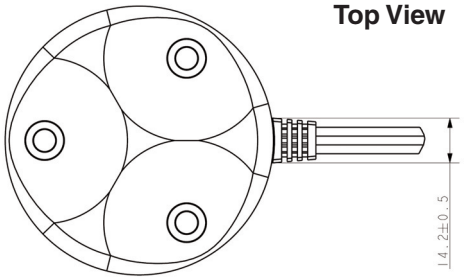
Part Number	Cable
1513837-1	3X RG-174 or equivalent

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

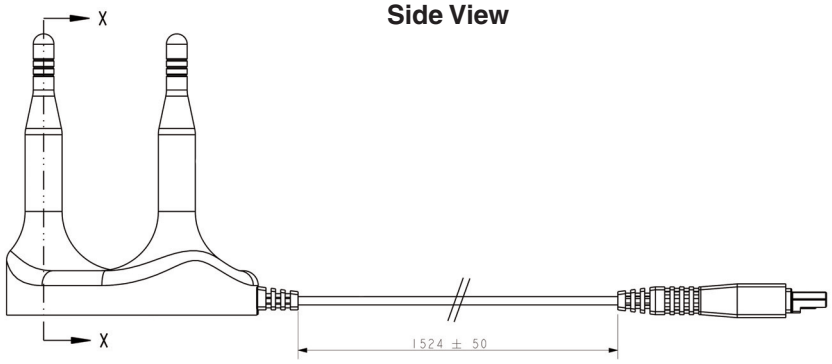
Front View



Top View



Side View



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