

Winchester Electronics Presents...

QMA Subminiature RF Connectors



Winchester manufactures the QMA series to utilize a quick connect mating system that does not require special tooling for mating/unmating. The QMA connector system was designed around the internal construction of an SMA, which allows the QMA to have excellent electrical/power characteristics.

Winchester's QMA is fully interchangeable with any other QMA connector and is equal in performance.

The mechanical design of the QMA centers around a snap-on mating versus a threaded coupling like the SMA. This allows denser packaging and reduced installation labor. The QMA has an added benefit of being able to rotate 360° after mating, allowing flexibility during installation with no change in performance.

Winchester's QMA connectors have excellent PIM performance up to -120dBc. The QMA Plugs can be enhanced with an internal grounding feature, which will increase the PIM performance up to -135 dBc. We can also offer an internal seal for weatherproof applications.

Product Benefits:

- Snap-on interface for easy installation.
- When mated, the connectors can rotate 360 degrees.
- Electrical performance similar to an SMA up to 6 GHz.
- Excellent PIM performance to -120dBc (enhanced version to -135 dBc).
- Optional weatherproofing seal.

Electrical

NOMINAL IMPEDANCE:	50 Ohms	
OPERATING FREQUENCY:	DC to 6.0 GHz	
VSWR:	Straight	Right Angle
	1.15 MAX	1.20 MAX
RETURN LOSS (dB MIN):	Straight	Right Angle
	-23	-20.8
INSERTION LOSS (dB MAX):	.25	
INSULATION RESISTANCE:	5,000 Megohms MIN	
DIELECTRIC WITHSTANDING VOLTAGE (VRMSMIN):		
RG316, RD316, 188, 174, LMR100 or Equiv.	750	
RG142, 55, 58, 141, 223, 303, 400, LMR195 or Equiv.	1000	
.085 (RG405/U) Semi-rigid or Equiv.	750	
.141 (RG402/U) Semi-rigid or Equiv.	1000	
CONTACT RESISTANCE (MILLIOHMS MAX):		
Center Contact:	3.0	
Outer Contact:	2.5	
Braid to Body:	0.5	
PASSIVE INTERMODULATION (PIM):		
-120dBc @ 1.8 GHz (2 X 20W)		

Mechanical

MATERIALS:
 Female contacts and outer contact: Copper Alloy
 Body components and male contacts: Brass Per ASTM B16
 Insulators: PTFE (Teflon) Per ASTM D1710
 Crimp Ferrules: Copper or Brass Alloy

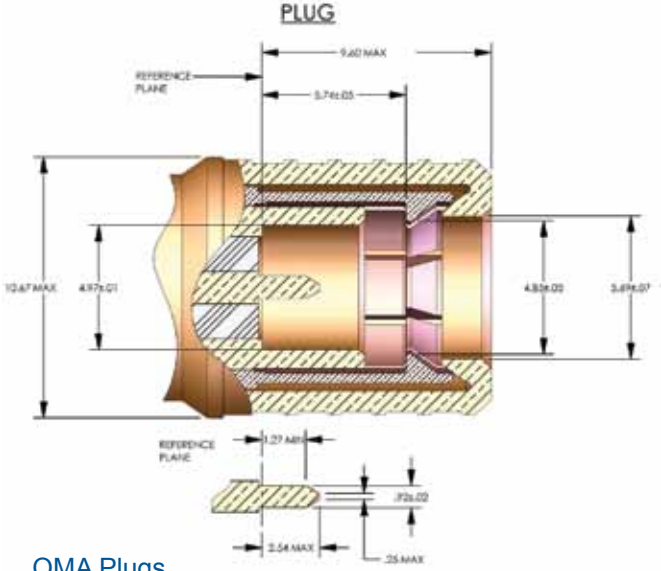
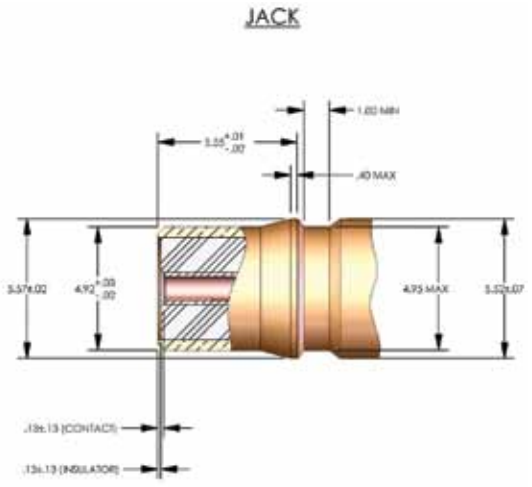
FINISHES:
 Center Contacts: Gold Per ASTM B4888 over
 Copper Per ASTM B734
 Other Metal Parts: Gold, or Tri-metal Plated to meet the corrosion requirements of MIL-PRF-39012

MATING CHARACTERISTICS:
 Connector Mating Force: 20 N
 Connector Unmating Force: 20 N
 Connector Retention (Fully Mated): 60 N MIN

DURABILITY: 100 Cycles MIN

Environmental

TEMPERATURE RATING: -40°C to +85°C
CORROSION RESISTANCE: MIL-STD-202, Method 101, Cond B
VIBRATION: MIL-STD-202, Method 204, Cond B
SHOCK: MIL-STD-202, Method 213, Cond A
THERMAL SHOCK: MIL-STD-202, Method 107, Cond B, except High Temp shall be +85°C.
MOISTURE RESISTANCE: MIL-STD-202, Method 106, except Step 7b is omitted. No measurement at high humidity.



- QMA Jacks**
- 661-500-0850R: Straight Jack for .085 Semi-rigid
 - 661-500-1410R: Straight Jack for .141 Semi-rigid
 - 661-900-0630R: Straight Jack for RG316
 - 661-900-0631R: Straight Jack for RG316DB
 - 661-975-2400R: Straight Bulkhead Jack for LMR240®
 - 661-060-0040J: Straight PCB Jack
 - 663-086-0040J: Right-angle PCB Jack
 - 663-060-0040J: Right-angle PCB Jack (Thru-hole)
 - 661-065-0040R: Straight 4-hole flange Jack

- QMA Plugs**
- 660-500-0850R: Straight Plug for .085 Semi-rigid
 - 660-500-1410R: Straight Plug for .141 Semi-rigid
 - 660-900-0630R: Straight Plug for RG316
 - 660-900-0631R: Straight Plug for RG316DB
 - 660-900-2401R: Straight Plug for LMR240®

Connecting Innovation to Application®