QMA Connectors

Snap-On SMA Series of RF Connectors

Electronics

Product Facts

₹ Tyco

- Positive snap-on interface facilitates assembly
- Intermateable with competitor product
- Excellent RF performance to 6 GHz
- Ideal for Communications and Industrial Applications



Tyco Electronics' next generation high performance RF products QMA (Snap-On SMA) connectors series offers the same high quality and performance currently found in the standard Tyco Electronics SMA series but does not require the coupling nut torque. By integrating a snap-on feature to the design, denser packaging can be achieved, and the overall applied cost is dramatically reduced. The QMA connector series is excellent for communications as well as industrial applications. The QMA offering is designed for 100 mating cycles, operates through 6 GHz, and is completely intermateable with competitive QMA offerings. This new QMA product is not intermateable with standard SMA interfaces.

QMA connectors are available in a broad range of standard configurations, including PCB and panel mount, flexible and semirigid cable, and adapters. Other options can be reviewed as well, including additional cable sizes, PCB surface mounting, and tape and reel packaging.

The QMA connector series is a cost effective solution for the challenging demands of today's commercial marketplace, with applications including cellular base station, handsets, and test and measurement. Call your local sales office or authorized distributor for additional information or samples of the QMA connector series.

Tyco Electronics is a leading supplier of RF and Microwave connectors and cable assemblies, and provides advanced technology products from well known and industry leading brands, including AMP and M/A-COM.

Material and Finish

 $\begin{array}{l} \textbf{Shells and Bodies} \\ \textbf{--} \\ \textbf{Brass, nickel} \\ \textbf{plated} \end{array}$

Collars — Phosphor bronze, white bronze plated

Outer Contacts — Beryllium copper, nickel plated Center Contacts — Beryllium copper,

gold plated Dielectrics — PTFE

Electrical Characteristics

Frequency — dc – 6 GHz Nominal Impedance — 50 ohms Voltage Rating — 335 Volts (VRMS max.) @ Sea Level

VSWR — 1.15 : 1 max. @ 6 GHz Insulation Resistance —

5,000 megohms min.

Insertion Loss — .25 dB Max @ 6 GHz Dielectric Withstanding Voltage —

1000 Volts (VRMS max.) @ Sea Level Contact Resistance —

Center Contact — 5 milliohms max. Outer Contact — 4 milliohms max.

Mechanical Characteristics

Connector Durability — 100 mating cycles

Force to Engage — 27 Newtons Force to Disengage — 20 Newtons

Retention Force (mated pair) — 60 Newtons min.

Cable Retention — Dependent upon cable type

Environmental Characteristics Temperature Rating —

-40 to +125°C Vibration — EIA-364-28, Test Condition VII, Condition D

Shock — EIA-364-27, Method H Moisture Resistance — EIA-364-31, Method III

Thermal Shock — EIA-364-32

Note: Performance specifications are typical, but may not apply to all connector types.

Related Product Data

Product Specifiation — 108-2087 Sample Kit — 1654882



124

Catalog 1307191 Revised 3-07

www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents. Dimensions are shown for reference purposes only. Specifications subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803 South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208 ₹ Tyco Electronics

RF Coax Connectors

QMA Connectors (Continued)

Semi-Rigid Cable — Direct Solder Attachment

Straight Cable Plug





Cable	Part Number
RG 402	1408346-1

Right-Angle Cable Plug













Bulkhead Cable Jack







Note: Part Numbers are RoHS compliant except:
Indicates non-RoHS compliant.

Catalog 1307191 Revised 3-07 www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents. Dimensions are shown for reference purposes only. Specifications subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208

Part Number

1408349-1

125

₹ Tyco Electronics

RF Coax Connectors

QMA Connectors (Continued)

Flexible Cable — Crimp Attachment

Straight Cable Plug





Cable	Dim. A	Part Number
RG 174, 188, 316	22.90 0.90	1408333-1
RD 316	22.90 0.90	1408333-3
RG 400	25.20 0.99	1408333-5
RG 58	25.20 0.99	1408333-7

Right-Angle Cable Plug



Cable	Dim. A	Dim. B	Part Number
RG 174, 188, 316	17.20 0.68	13.10 0.52	1408336-1
RD 316	17.20 0.68	13.10 0.52	1408336-3
RG 400	19.50 0.77	15.40 0.61	1408336-5
RG 58	19.50 0.77	15.40 0.61	1408336-7



Straight Cable Jack

200

Cable	Dim. A	Part Number
RG 174, 188, 316	25.90 1.02	1408338-1
RD 316	25.90 1.02	1408338-3
RG 400	28.20 1.11	1408338-5
RG 58	28.20 1.11	1408338-7



Bulkhead Cable Jack





Cable	Dim. A	Part Number
RG 174, 188, 316	9.90 0.39	1408339-1
RD 316	9.90 0.39	1408339-3
RG 400	12.20 0.48	1408339-5
RG 58	12.20 0.48	1408339-7

Note: Part Numbers are RoHS compliant except:
Indicates non-RoHS compliant.

126

Catalog 1307191 Revised 3-07

and inches unless otherwise specified. Values in brackets are standard equivalents. www.tycoelectronics.com

Dimensions are in millimeters

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803 South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208

₹ Tyco Electronics

RF Coax Connectors

QMA Connectors (Continued)

Printed Circuit Board





Straight Terminal Press-In Jack



9.95	5.00	2.00	
[.392]	[.197] →	[.079]	
0.75 ± 0.05	4.50	1.20	
[.030 ± .002] →	[.177] →	[.047]	
		4.00 	Ø 6.83 ± 0.03 [.269 ± .001]

Body Material	Contact	RF Leakage	Temperature	Part
& Finish	Captivation	db min.	Range	No.
Brass, Gold	Mechanical	N/A	–65 to 125° C	619215-1

Note: Part Numbers are RoHS compliant except:
Indicates non-RoHS compliant.

Catalog 1307191 Revised 3-07 www.tycoelectronics.com

Dimensions are in millimeters and inches unless otherwise specified. Values in brackets are standard equivalents. Dimensions are shown for reference purposes only. Specifications subject to change. USA: 1-800-522-6752 Canada: 1-905-470-4425 Mexico: 01-800-733-8926 C. America: 52-55-1106-0803

South America: 55-11-2103-6000 Hong Kong: 852-2735-1628 Japan: 81-44-844-8013 UK: 44-8706-080-208 127

RF Coax Connectors



to change.

www.tycoelectronics.com