

Cost Effective solution

The **QMA** series, member of the Quick Lock family, is the new innovative **snap-on** generation of brass SMA connectors. With the same interface dimensions, **QMA** connectors have the same high electrical performances as the SMA series with an easier and faster mounting design. **QMA** series offers a cost effective solution for new generations of base stations.

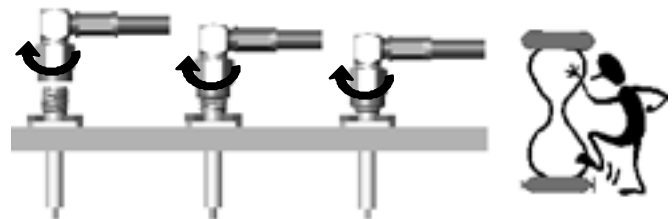
The **QMA** series is designed for DC to 6 GHz. Engagement life is 100 matings, just as standard commercial SMA connectors, with total reliability. They are easy and fast to connect and disconnect.

The new **QMA** series offers a large range of connectors: straight and right angle plugs, bulkhead jacks, flange receptacles, PCB receptacles, adapters ... Models are either full crimp, crimp or solder type for flexible, semi-rigid or conformable cables.

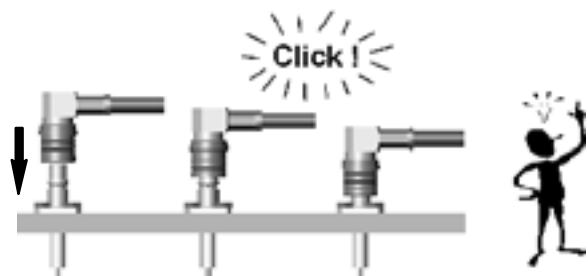
Saving mounting time: 10 times faster!

With its snap-on mating system, **QMA** connectors are 10 times quicker to mount than a screw-on SMA. It takes less than 2 seconds to connect **QMA** connectors in field conditions.

Risk in damaging or scratching the panel is limited as no torque wrench is required.

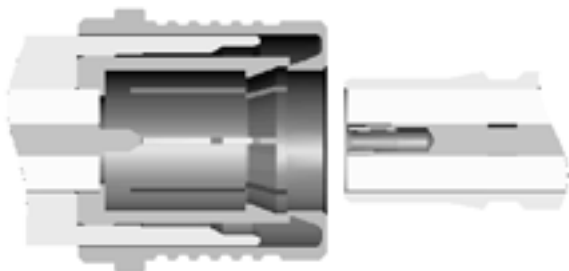


Screw-on connectors: SMA



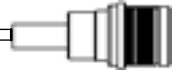
Snap-on connectors and member of the Quick Lock family: QMA

Secure connection: Click !



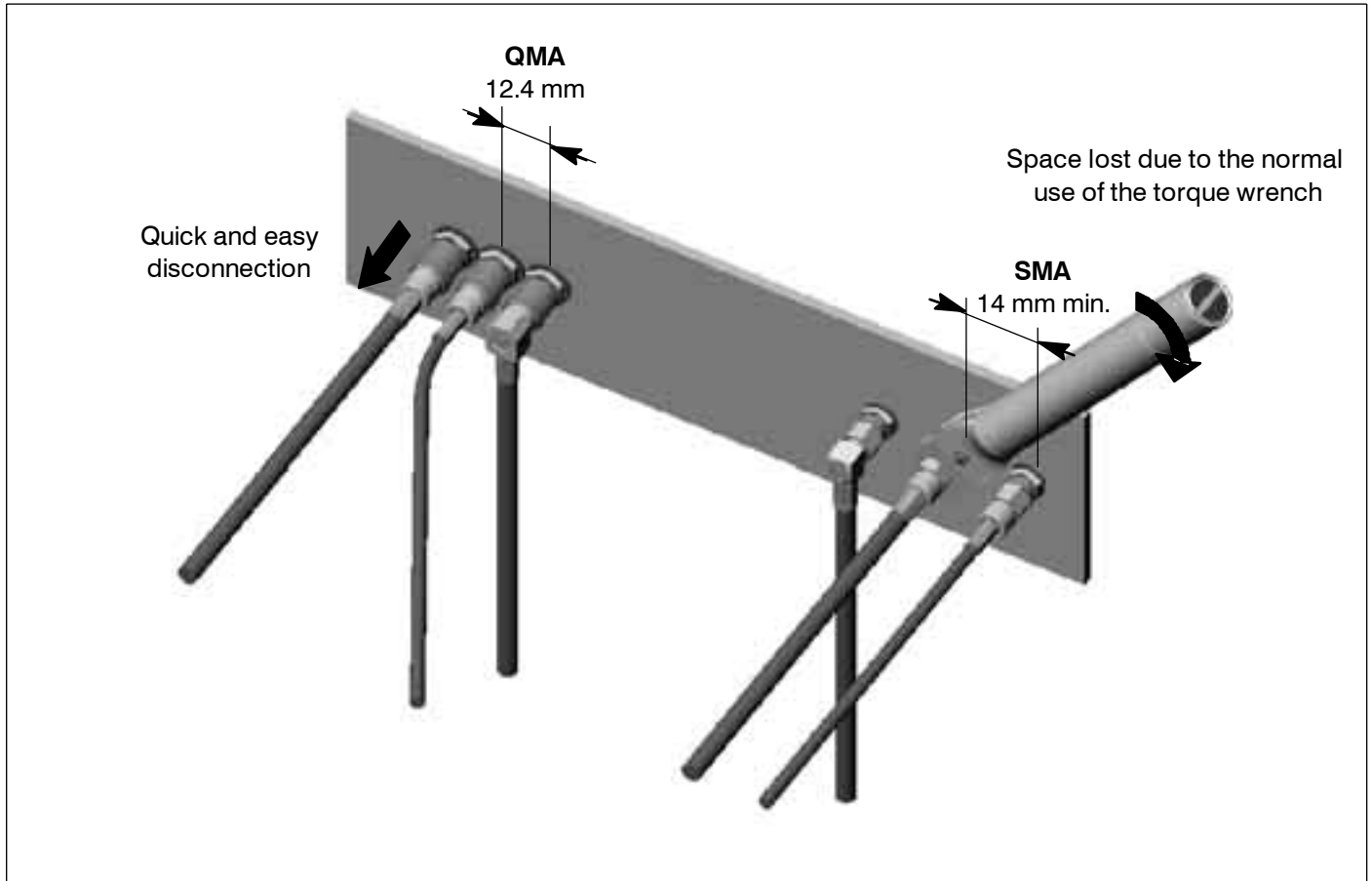
Snap-on connection is insured by a chamfer. Moreover, a positive locking system insures a good and secure connection. The disengagement force is lower than the panel tear-off force, preventing from any panel damaging.

QMA connectors have been successfully tested against vibration.



Space- saving

QMA connectors have a lower space requirement since space for the use of a torque wrench is not necessary. The distance between connectors is therefore optimized on the panel.



For very compact assembly in which there is not enough space to disconnect by hand, a very easy to use extraction tool (p.17) is available to disconnect either straight or right angle **QMA** connectors.

Flexibility: 360° rotation

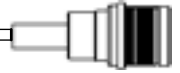
The cabled plug can freely rotate around the jack, which allows more flexibility during the mounting process and eases installation in the equipment.

Moreover, it prevents from any added stress on the cable and any return loss reduction due to cable bending.



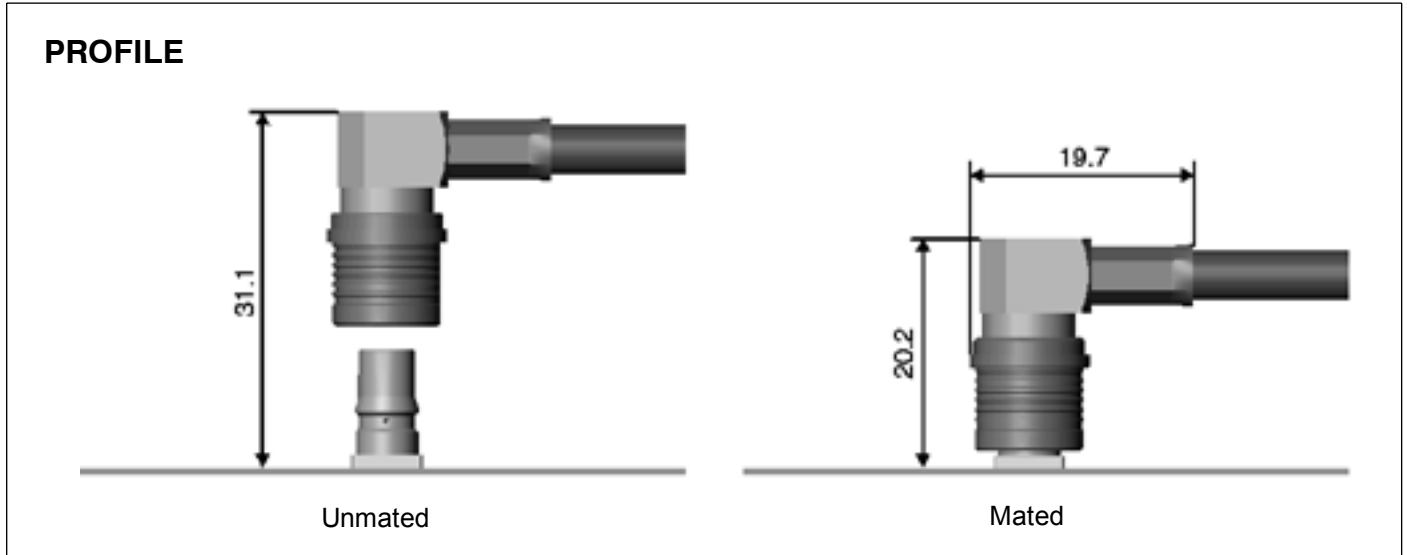
QMA implementation

You can at anytime switch from **SMA** to **QMA** connectors since panel or PCB cut out and crimping tool required are the same.



Packaging

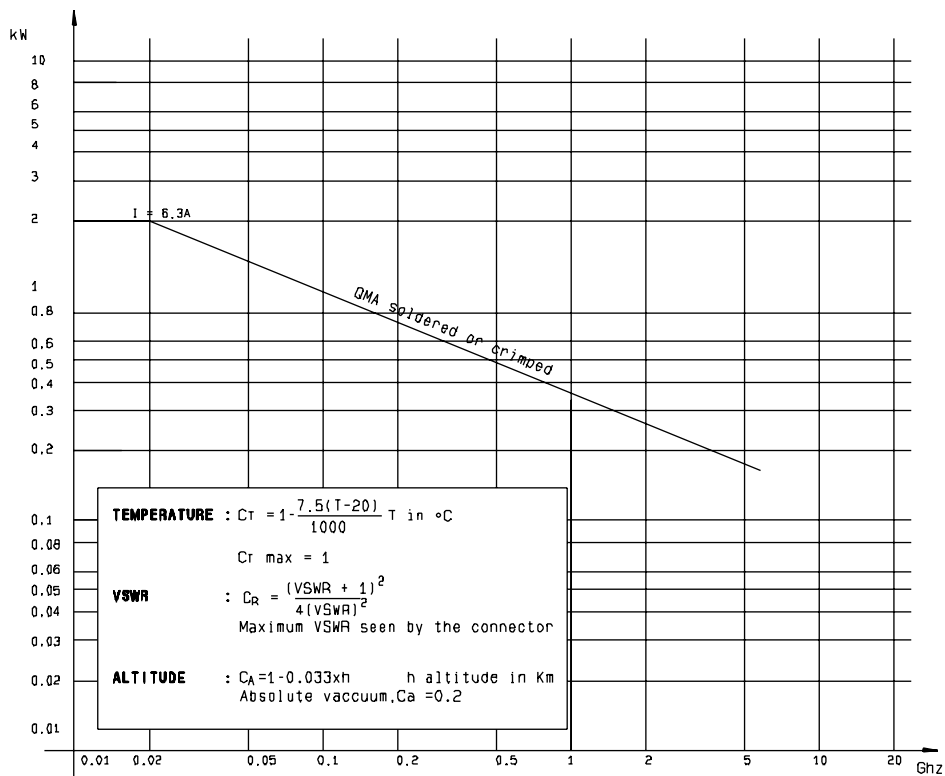
Standard packaging is 100 pieces. Unit packaging is available upon request. SMT receptacles are delivered in tape and reel of 100, 200 or 300 pieces.

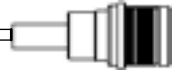


Measure adapters

In order to ease the implementation of **QMA** connectors in new systems, Radiall has developed a full range of **QMA/SMA 3.5** adapters (p.14).

Power range





ELECTRICAL CHARACTERISTICS

Impedance		50 Ω
Frequency range		DC - 6 GHz
V.S.W.R. typical	DC - 3 GHz 3 GHz - 6 GHz	1.06 1.12
Max insertion loss		0.25 dB
Insulation resistance		5000 M Ω
Voltage rating		335 V
Dielectric withstanding voltage		1000 V
Contact resistance	center contact outer contact	< 3 m Ω < 2.5 m Ω
Admissible power @ 2.5 GHz (continuous power)		125 W @ T = 40°C (150 W @ T = 23°C)
RF leakage	DC - 3GHz 3 - 6 GHz	- 80 dB min - 70 dB min

MECHANICAL CHARACTERISTICS

Mechanical endurance		100 matings
Engagement and disengagement force	Engagement Disengagement	27 N 20 N
Retention force for interface		> 60 N
Cable retention	2.6 / 50 S 2.6 / 50 D 5 / 50 S 5 / 50 D 5.7 / 50 D	90 N 110 N 180 N 200 N 220 N
Distance between connectors: c. to c.		12.4 mm min.
Vibration		40 m.s ⁻² at 500 Hz

ENVIRONMENTAL CHARACTERISTICS

Temperature range		-40, + 80 °C
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MATERIALS

Connector bodies		Brass
Male center contact		Brass
Female center contact		Beryllium copper
Outer contact		Bronze
Other metallic parts		Brass
Insulators		PTFE

PLATING

Bodies		BBR*
Solder bodies		BBR*
SMT Bodies		GBR**
Outer contact		BBR*
Center contacts		GOLD

* : Bright Bronze Radiall

** : Gold Bronze Radiall

All dimensions are given in mm.