

# SMP-LOCK®



## The Ultimate Secure Connection

Radiall has expanded its broad range of SMP products with SMP-LOCK® connectors featuring a robust locking mechanism, which dramatically increases the retention force of the interface and prevents accidental disconnection.



Offered with a limited number of receptacles and straight or right-angle plugs for standard cables, SMP-LOCK® connectors can be easily customized to fit your preferred cable or to meet the needs of your microwave module. They have been specially designed for harsh environments and to withstand more severe vibration and drop tests.

SMP-LOCK® connectors are suitable for cable-to-cable or cable-to-module interconnections inside equipment subject to harsh mechanical stress such as airborne radars, avionics, satellites, missile, UAV and UGV applications. For high-density PCB or panel layouts, an extraction tool is available to ease the connect/disconnect operations.

## Features

### Compatibility with SMP

SMP-LOCK® plugs are compatible with most standard SMP receptacles in the unlocked position, with the exception of catcher's mitt type.

### Part numbering

SMP-LOCK® part numbers start with R222L, "L" as "Lock" for easy identification. Example: R222 L80 010

### High Reliability Applications

A range of SMP-LOCK® connectors has been developed to meet our customers' needs for high reliability applications.\*



## When extreme vibration and shock impact your equipment, use Radiall's SMP-LOCK®.

### *The Ultimate Secure Connection*

The addition of an innovative locking mechanism to the SMP interface makes it less vulnerable to the most demanding vibration and shock requirements. With SMP-LOCK®, the retention force of the connector when locked is specified at 450 N with .085' semi-rigid cable. This level of retention is 10 times more than with standard SMP full detent interface! The actual force required to break apart male and female connectors when locked is extremely high and has been measured at 1500 N. This is the highest in the industry for this type of microminiature connector.



### When size and performance matter

The SMP interface is the right choice when it comes to designing high frequency, highly integrated microwave modules without compromising on the electrical performance. For the last 10 years, engineers have been implementing Radiall SMP in new generation Mil-Aero systems, which is gradually replacing SMA and BMA.

#### General

- Excellent electrical performance combined with robust locking feature
- **Two step connection, low insertion force**
- Plug equipped with EMI ring offers improved RF leakage performance -92dB at 18 GHz
- Locking sleeve provides greater retention force up to 450 N with RG-405 cable
- SMP-LOCK® uses limited detent interface for lower connect/disconnect forces, less mechanical stress and a longer life cycle
- **Audible click indicates that plug is locked, eliminating accidental disconnections**
- SMP interface is rated DC-40 GHz