RF Power Switching Connectors

RADIALL
The next conneXion

RF Power switching connector is surface/edge mounted.
It's a "two in one" solution replacing the existing standard RF switches by integrating the switch function into a receptacle connector.

This solution provides a unique means of switching between two RF signal paths.

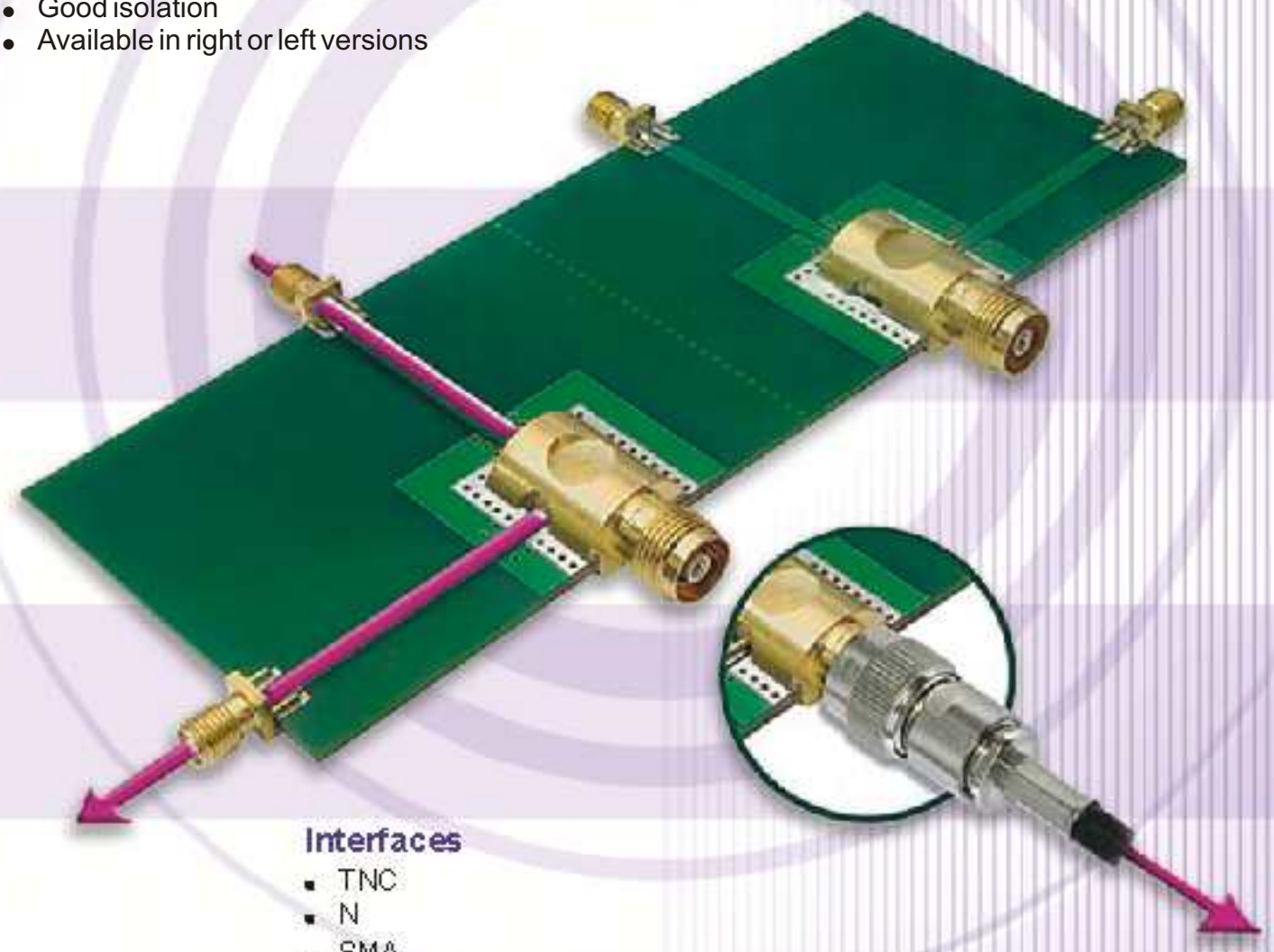
As user friendly as a standard connector, the switch is mechanically activated by mating and unmating the connector.

Main advantages

- Reliable
- Increases the density
- Excellent electrical and mechanical performances
- Reduction of the cost of ownership
- Better RF adaptation
- Good isolation
- Available in right or left versions

Main applications

- Telecom applications
- RF power amplifiers



Interfaces

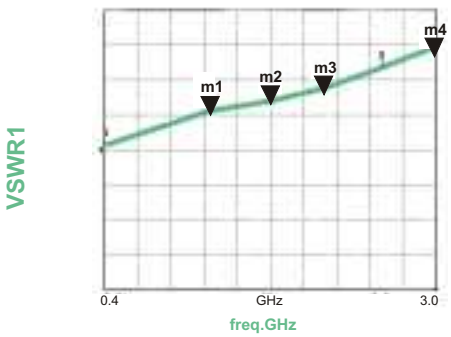
- TNC
- N
- SMA
- QMA and QN,
  both Quick Lock Formula® certified

N RF Power Switching Connectors

Impedance		: 50 Ω
Frequency		: DC-3 GHz
VSWR		: 1.1+ 0.1000 x F (GHz) Maxi
Isolation at	DC to 1 GHz	: -47 dB typical
	1 to 2 GHz	: -43 dB typical
	2 to 3 GHz	: -40 dB typical
Insertion Loss at	DC to 1 GHz	: 0.1 dB maxi
	1 to 2 GHz	: 0.15 dB maxi
	2 to 3 GHz	: 0.2 dB maxi
RF leakage		: NA
Voltage rating		: 300 Veff maxi
Dielectric withstanding voltage		: 500 Veff mini
Insulation resistance		: 5000 MΩ mini
Power withstanding		: 100 W (at 0.9 GHz and 1.8 GHz)

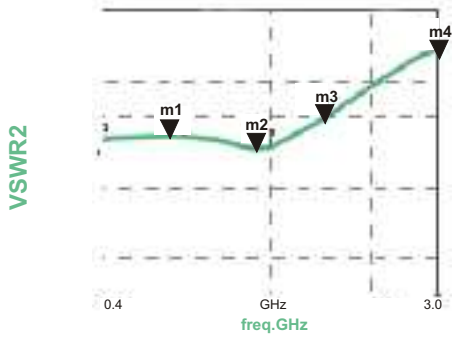
Type	Left	Right
Part number	**R161 428 223**	**R161 428 233**

VSWR direct line



m1 freq=1.0 GHz VSWR=1.108
m2 freq=1.52 GHz VSWR=1.143
m3 freq=2.0 GHz VSWR=1.179
m4 freq=3.0 GHz VSWR=1.297

VSWR switched line



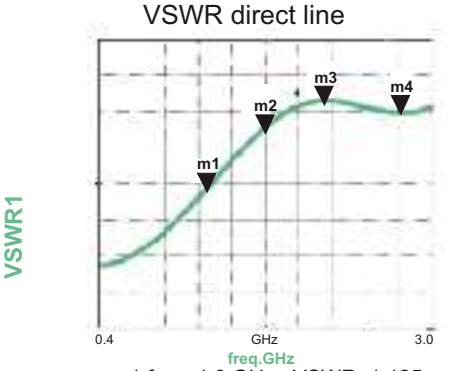
m1 freq=0.72 GHz VSWR=1.024
m2 freq=1.4 GHz VSWR=1.005
m3 freq=2.0 GHz VSWR=1.049
m4 freq=3.0 GHz VSWR=1.146

SMA RF Power Switching Connectors

Impedance		: 50 Ω
Frequency		: DC-3 GHz
VSWR		: 1.1+0.1000 x F (GHz) Maxi
Isolation at	DC to 1 GHz	: -47 dB typical
	1 to 2 GHz	: -43 dB typical
	2 to 3 GHz	: -40 dB typical
Insertion Loss at	DC to 1 GHz	: 0.1 dB maxi
	1 to 2 GHz	: 0.15 dB maxi
	2 to 3 GHz	: 0.2 dB maxi
RF leakage		: NA
Voltage rating		: 300 Veff maxi
Dielectric withstanding voltage		: 500 Veff mini
Insulation resistance		: 5000 MΩ mini
Power withstanding		: 80 W (at 0.9 GHz) 50 W (at 1.8 GHz)

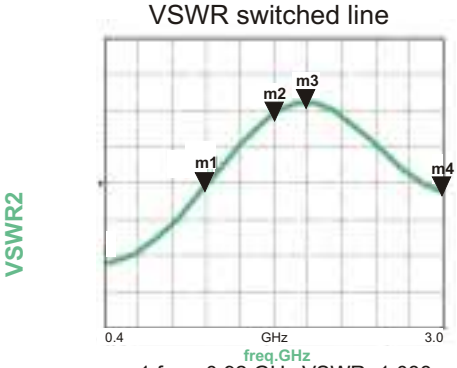
Type	Right
Part number	**R124 422 001**

VSWR direct line



m1 freq=1.0 GHz VSWR=1.125
m2 freq=1.52 GHz VSWR=1.193
m3 freq=2.04 GHz VSWR=1.223
m4 freq=2.72 GHz VSWR=1.209

VSWR switched line



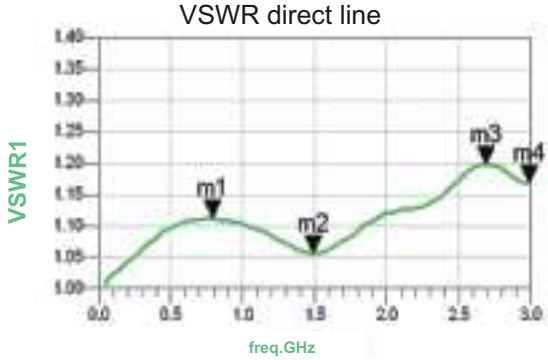
m1 freq=0.92 GHz VSWR=1.088
m2 freq=1.52 GHz VSWR=1.149
m3 freq=1.8 GHz VSWR=1.158
m4 freq=3.0 GHz VSWR=1.084

TNC RF Power Switching Connectors

Impedance		: 50 Ω
Frequency		: DC-3 GHz
Isolation at	DC to 1 GHz	: -47 dB typical
	1 to 2 GHz	: -43 dB typical
	2 to 3 GHz	: -40 dB typical
Insertion Loss at	DC to 1 GHz	: 0.1 √F(GHz) dB max
	1 to 2 GHz	: 0.15 dB maxi
	2 to 3 GHz	: 0.2 dB maxi
Voltage rating		: 300 Veff maxi
Power withstanding		: 80 W (at 0.9 GHz) 50 W (at 1.9 GHz)

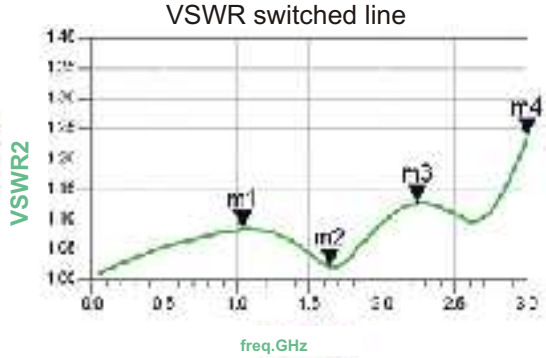
Type	Left	Right
Part number	**R143 422 947**	**R143 422 957**

VSWR direct line



m1 freq=790.0 MHz VSWR1=1.112
m2 freq=1.490 GHz VSWR1=1.056
m3 freq=2.690 GHz VSWR1=1.197
m4 freq=2.990 GHz VSWR1=1.169

VSWR switched line



m1 freq=1.040 GHz VSWR2=1.084
m2 freq=1.640 GHz VSWR2=1.021
m3 freq=2.240 GHz VSWR2=1.126
m4 freq=3.000 GHz VSWR2=1.236

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