

How does it work?

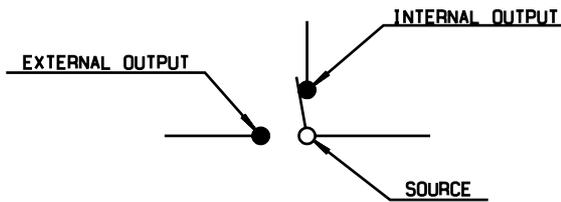
► Electrical scheme

When the plug is not connected the signal comes from the source, goes through the connector and exits by the internal output (see ①).

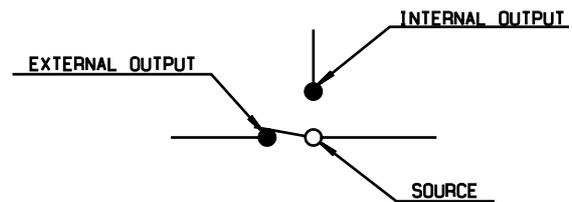
When the plug is connected, the signal is diverted and exits through the external output (see ②)

A typical application is switching from an internal antenna to an external antenna.

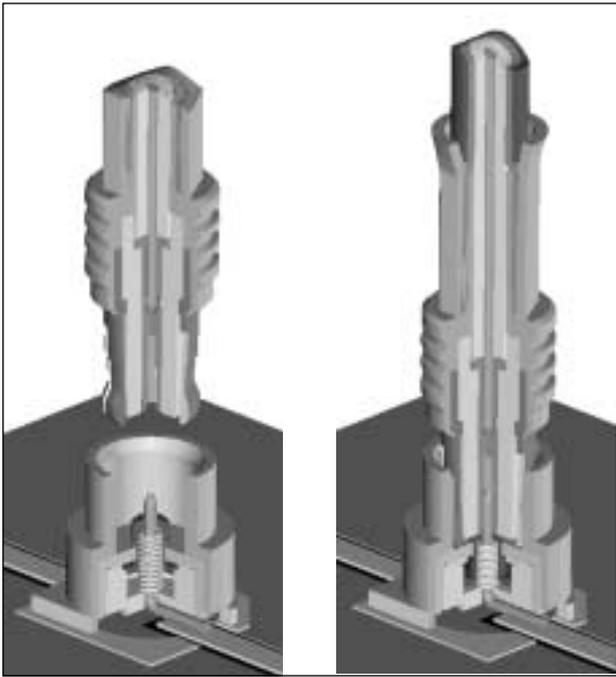
① Unmated



② Mated with MC CARD plug



► Mechanical scheme



A **SPRING TECHNOLOGY** has been chosen for the design of those microswitches, which provides ruggedness and reliability (ex. min. 100000 matings for the R-MCX*) and very good electrical performance up to 6 GHz.

More than 10 Million pieces have already been delivered !

APPLICATIONS :

- Mobile phone, PMR/Tetra
- WLAN, modem : PC MCIA and ISA cards
- Antenna connections
- Test point measurements
- PC, laptop

You have a choice !

Depending on your PCB configuration, you can choose between 2 possibilities :

- **Straight RF switches** for a connection from the top,
- **Edge card RF switches** for a connection from the side.

For your convenience, both switches are designed for SMT technology and are compatible with all standard pick and place machines.

Other microswitches can be developed upon request, for other : - Interfaces
- Custom height
- Frequency range

Please consult with us.

ELECTRICAL CHARACTERISTICS

	MC CARD		R-MCX		
Impedance (Ω)	50		50		
Frequency range	DC - 3 GHz		DC - 6 GHz		
Typical V.S.W.R. <i>unmated</i> <i>mated with plug</i>	900 MHz	1800 MHz	900 MHz	1800 MHz	4000 MHz
	1.15	1.25	1.05	1.16	1.30
	1.04	1.02	1.04	1.10	1.27
Typical insertion loss (dB)	0.15	0.22	0.10	0.15	0.25
Isolation between 2 ways (typical)	-46 dB	-40 dB	-32 dB	-26 dB	-23 dB
Power	40 W at 935 MHz		60 W at 935 MHz		

MECHANICAL CHARACTERISTICS

Durability min.	5000	100 000
Engagement force	12 N max	15 N
Separation force	4 N min	slide-on

ENVIRONMENTAL CHARACTERISTICS

Temperature range	-40, +100°C	-40, +100°C
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MATERIALS

Bodies	Brass	Brass
Center contact	Beryllium copper	Brass
Outer contact	Beryllium copper	–
Insulator	PEEK 30% GF	PPS

PLATINGS

Bodies	Gold	Gold
Center contact	Gold	Gold
Outer contact	Nickel	–