ranatec

DATA SHEET

RF2018B RF SWITCH BOX

Solid State, DC-6 GHz



OVERVIEW

The Ranatec RF2018B is an RF Switch system with 12 solid state switch modules, each with 1 pole and 4 throws. It is well suited for high volume testing, where long lifetime is required, without sacrificing RF performance. RF2018B offers very good linearity, power handling and speed.

APPLICATION

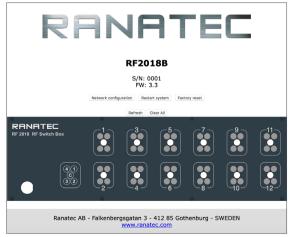
RF2018B is designed for applications such as:

- Production testing of mobile handsets
- Production testing of mobile base-stations
- Built-In-Test (BITE) applications
- **MIMO** applications

CONTROL INTERFACES

- Web-interface, for manual operations
- Textual (SCPI-like) API

All switches are controlled remotely via webinterface or API. It can be controlled from any computer in the network via TCP/IP sockets or via its internal web server. The communication protocol is very simple and independent from operating system, programming language etc.



Web-interface

FEATURES

- Switch mode: SP4T latching, terminated
- DC 6 GHz RF frequency range
- Insertion loss <1.9 dB up to 3 GHz
- 63 dBm IP3
- + 30 dBm maximum input power
- Flexible supply voltage: 5-45 VDC
- <100 µs switching time
- High repeatability
- Ultra-long lifetime

SPECIFICATIONS

Switch mode Switching time Supply voltage Supply current Actuating current

Operating frequency Impedance Max DC at RF inputs VSWR (max)

Insertion loss (max)

Isolation RFC-RFx (min)

Isolation RFx-RFy (min)

Input power thru path (max) 30dBm @ 0.01-6 GHz Input power hot switching & into termination (max) Input IP3 (typ) Operating temperature Storage temperature **Relative humidity** Connectors

SP4T latching, terminated < 100 µs 5-45 VDC < 1 mA < 50 µA (active low, input pulled up to 3 VDC) DC-6 GHz 50 Ohm 0 VDC 1.4.1 @ 0.01-0.698 GHz 1.3.1 @ 0.698-3 GHz 1.4.1 @ 3-6 GHz 1.6dB @ 0.01-0.698 GHz 1.9dB @ 0.698-3 GHz 2.2dB @ 3-6 GHz 55dB @ 0.01-0.698 GHz 40dB @ 0.698-3 GHz 35dB @ 3-6 GHz 55dB @ 0.01-0.698 GHz 40dB @ 0.698-3 GHz 30dB @ 3-6 GHz

20dBm @ 0.01-6 GHz 63dBm @ 0.01-6 GHz 0 to +50°C -20 to +70°C 95% at +40°C SMA(f)

ORDERING RF2018B

RF Switch Box

Revision B