ranatec

DATA SHEET

RF2025 ATTENUATOR BOX

4 channel 100 MHz-8 GHz 0-96 dB

OVERVIEW

The RF2025 Attenuator Box is a high performance, digitally controlled, 4-channel RF attenuator system. It is intended for any automated RF testing where high accuracy signal power control is needed. The RF2025 offers very good attenuation accuracy, high dynamic range and speed.

The high performance of the attenuator box is obtained through a high precision attenuator design, along with extensive factory calibration procedures. Although the nominal setting is done with a 1 dB granularity, the actual attenuation is fed back from the attenuator. For the frequency range up to 6 GHz, this yields knowledge of the actual attenuation within +/-0.25 dB.

APPLICATION

The RF2025 is intended for any testing where accurate RF power control is needed over a wide dynamic range. Typical applications include transmitter, receiver as well as system level testing of mobile, WLAN and Bluetooth devices:

- During all phases of product development
- For (pre-)conformance testing/homologation
- Production testing / Quality assurance

CONTROL OPTIONS

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

ranatec		

FEATURES

- Four individually controlled RF channels
- Attenuation setting through web-interface or API
- 100 MHz to 8 GHz frequency range
- Attenuation steps of 1 dB
- Each channel individually calibrated
- 0.5 dB attenuation accuracy (up to 6 GHz)
- 2 W maximum input power
- 19" rack mountable, 1U height

SPECIFICATION

Supply voltage	100-240 VAC, 50/60 Hz
Power consumption	< 40 W
Operating frequency	100 MHz - 8 GHz
Impedance	50 Ohm
Input power (max)	+33 dBm
Max DC at RF inputs	0 VDC
Return loss	>10 dB (any port)
Insertion loss	7.5 dB (typical)
Attenuation step size	1 dB
Attenuation accuracy	0.5 dB (up to 6 GHz) 2 dB (6 to 8 GHz)
Attenuation range	6-96 dB @ 0.1-4 GHz 8-90 dB @ 4-6 GHz 12-80 dB @ 6-7 GHz 12-60 dB @ 7-8 GHz
X-channel isolation	>100 dB
Dimensions	450x45x320 mm
Weight	3 kg
Connectors	50 ohm SMA(F)

ORDERING RF2025

Attenuator Box

Revision E