

Model 157 Urban Area RF Simulator

The model 157 is a remote controllable RF generator design to simulate the ambient RF environment common to urban areas. The unit contains eleven user configurable sources (six for broadcast television and five for broadcast FM radio). Each of the eleven sources can be independently set for frequency and power levels. A fixed internal modulation source is provided to all eleven sources. Completing the suite is a broadband noise source as the twelfth source. Any of the sources can also be turned off for high isolation.

The front panel controls and display, allow the user to configure and control the unit locally, as well as viewing the health and status of the chassis. A Windows® based GUI is also included. The GUI provides the remote equivalent of the front panel.

Electrical

Television Source Frequency Range	54 to 806 MHz
Frequency Resolution	250 KHz
Power Range	+10 to -86 dBm per source
Power Resolution	2 dB
Modulation	Constant luminance, Random chroma Un-modulated audio sub-carrier
Format	NTSC or PAL(B,G) user selectable
FM Broadcast Source Frequency	88 to 108 MHz
Frequency Resolution	100 KHz
Power Range	+10 to -86 dBm per source
Power Resolution	2 dB
Modulation	Fixed modulation plus sub-carrier
Command Response Time	1 mS
Noise Source	-84 to -100 dBm / MHz
Power Resolution	1 dB
Inter-modulation Distortion, Triple Beat	-55 dB

Control Interface

RS-232/574 (DTE),
RS-422/485 (2 wire)
LAN 10/100BaseT (RJ45)

Primary Power

100-230 VAC, 50/60 Hz, 250 watts

Mechanical

Size 5.25" H (3U) x 19" W x 20" D
Weight 40 lbs.
RF Connectors SMA female

Environmental

Operating Temperature +0 to +50 C

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