EM ANTENNAS

DATASHEET

EM-2150B | Receiver, Non-Tunable

Description

The EM-2150B TEMPEST Test Receiver Is designed to meet the specifications and requirements established by NACSIM 5100A for non-tunable tests from 100 Hz to 1 GHz. The 2150B design uses a series of externally connected discrete components and assemblies comprising RF amplifiers, variable electronic filters, and a series of passive high/low-pass filter networks to set the required test configuration.

Features

- Input attenuator: 0-100 dB In 10 dB steps
- Input Balun transformer: 20 Hz - 6 MHz
- Input transfer switch (facilitates substitution of special filters): High pass = 5 kHz & 10 kHz; Low pass = 30 MHz
- Connectors: BNC
- Compatible with standard test accessories, antennas, probes, PLISNs & Oscilloscopes

Specifications

Electrical

Frequency Range:	100 Hz – 1 GHz
Typical VSWR:	0.3:1 below 400 MHz 2:1 Maximum
Gain:	100 dB gain (all combinations of pre-gain, post-gain, and inter-gain filtering)
Noise Figure:	40-96 dB of low-noise gain In Increments of 20-40 dB
Impedance:	50 Ohms
Input Impedance:	0 Ohms
Sensitivity:	LNA's used to outperform Federal Standard testing sensitivities.

Mechanical

Depth:	66.04 cm (26 in.)
Width:	52.07 cm (20.5 in.)
Height:	29.85 cm (11.75 in.)
Weight:	19 kg (42 lbs.)
Color Options	Black (Std) Custom Paint Available
Included Accessories:	1 - Twinax to BNC Adapter 1 - BNC Input coaxial cable 1 - BNC Output coaxial cable 10 - BNC Interconnection coaxial cables, variable length

Specifications subject to change without notice, unless otherwise specified. Product is manufactured in Johnstown, NY, U.S.A.

MADE IN USA

231 Enterprise Rd., Johnsontown NY 12095 518.762.2600 www.em-antennas.com

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Passband Characteristics

The lower and upper passband edges are independently adjustable. From 100 Hz to 100 kHz, the passband is realized by a dual electronic filter. Each half of the dual filter represents one independent four-pole filter (roll-off into the stopband of 24 dB per octave) with its cutoff frequency set by three-decade switches providing a precision of three significant figures. The configuration of the dual filter can be selected from the front panel to high-pass, low-pass, band-pass, or band-stop.

Above 100 kHz, the passband edges are selectable in steps in 1-2-5-10 sequences up to 500 MHz for the lower passband edge. The filters used in this range have a rate of roll-off into the stopbands of more than 3 dB per octave.

Applications

The EM-2150B is compatible with any of the usual test accessories, including our:

- EM-6870 Loop Antenna
- EM-6879 Loop Antenna
- EM-6892 Active Vertical Omni-Direction Antenna
- EM-6912 Biconical Antenna
- EM-6950 Log Periodic Antenna

Power Sources

- Internal rechargeable batteries with an average operating time of six (6) hours
- External DC hookup (+12V only)
- External 115/230V, 50/60 Hz, AC, powers Instrument & recharges batteries.

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