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MODEL

NPRT 2200F

Noise Power Ratio Test Set

APPLIED INSTRUMENTS, INC.

TELECOMMUNICATIONS INSTRUMENTATION

The NPRT 2200 measures the NPR of a device across a range of power levels. This test quantifies inter-modulation distortion and determines the dynamic range of optical transmitters, amplifiers and other active HFC network devices.

The included PC software uses predefined test setups to run a “Power Sweep” series of NPR measurements and graph the results. The measurements are compared to a threshold value to determine the acceptable operating power or dynamic range of the device. Results may be stored on the PC for further analysis and the graphs may be printed.

The NPRT 2200 inserts calibrated levels of white Gaussian noise (WGN) through a Device Under Test (DUT) then measures the noise level at a frequency where a notch filter is located.

The NPR is the ratio of the output power without the notch compared to the power with the notch filter. A graph of NPR versus input power illustrates the linear dynamic range and inter-modulation distortion characteristics of the DUT.

NPR Testing For Forward

Path HFC Active Components

Applications

- Quantity inter-modulation distortion
- Determine dynamic range
- Amplifiers
- Optical links

Benefits

- Easy to use
- Fast
- Accurate and repeatable

FEATURES

- Complete unit, source and receiver
- Controlled from front panel or PC
- "Power Sweep" graph printable from PC
- Ideal for laboratory or factory ATE

SPECIFICATIONS

Power Level (total power)…..…… -50 to +10 dBm
(0 to 58 dBmV)
Passband Flatness…….Band+Notch flatness
Noise Source Accuracy…… ± 0.3 dB
Noise Source Resolution…….. 0.05 dB
Receiver Accuracy…….± 0.3 dB
Power …….. 120/230 VAC 60/50 Hz
Impedance …… 75 Ohm
Return Loss …… Rx >20 dB, Tx >12 dB
Computer Interface…….. RS232

CONFIGURATIONS

Select 1 to 3 Frequency Bands
Select 1 to 4 Notch Frequencies

Freq BW(MHz)	Stop Band	Flatness
54 to 1002	>50 dB @ ± 6 MHz	± 6 dB
696 to 1002	>50 dB @ ± 6 MHz	± 4 dB
65 to 1002	>50 dB @ ± 6 MHz	± 6 dB
65 to 870	>50 dB @ ± 6 MHz	± 5 dB

Notch Filter	Width	Depth
60.0 MHz	3.5 MHz	>72 dB
523.0 MHz	6 MHz	>72 dB
600.0 MHz	6 MHz	>72 dB
849.0 MHz	6 MHz	>72 dB
987.0 MHz	6 MHz	>72 dB

Others available upon request.