

R-1580 Microwave Downconverter



- The DSII model R-1580 Microwave Downconverter extends the coverage of the R-1550, or other DSII wide range receivers, to 22GHz.
- The Downconverter features a simplified human interface which permits direct tuning to desired frequencies without requiring operator interpretation. When connected to the R-1550, the receiver tuning display is extended to 22GHz, and tuning, port selection, gain adjustment and attenuation settings are all accomplished with receiver controls and displays, eliminating the need for adjusting the controls of both units.
- The R-1580 is fully compatible with DSII automated measurement systems, such as the DSI-1550. When the Downconverter is connected, the extended frequency range is seamlessly integrated with the system sweep and interactive displays.
- The R-1580 Downconverter utilizes a multiple conversion design with preselection filtering, low phase-noise synthesizers, and high-quality components to provide superior signal capture capability. The built-in microprocessor controls operations and provides display of frequency and status. Communications with external equipment is provided via the IEEE-488 bus.

R-1580

Highlights

- Frequency Range from 1 to 22GHz
- Very wide IF Bandwidths (400MHz)
- Low Noise Figure
- Fundamental Mixing
- Built-in sweep Capability
- Externally controlled via the IEEE-488 bus

Physical Characteristics

- Dimensions: 7" high x 17" wide x 21" deep (175 x 425 x 525 mm)
- Weight: 65 lbs. (29.5 Kg)

Specifications

Frequency Range:
1 to 22GHz

Input Filtering:
Fixed and tracking filters eliminate image and multiple responses

IF Bandwidth:
400MHz minimum

Noise Figure:
To 8GHz: 12dB maximum
8 to 22GHz: 14dB maximum

1dB Compression Point:
-30dBm minimum
(input attenuator in 0dB position)

Dynamic Range at 100 MHz Bandwidth:
50dB

Frequency Reference Stability:
Better than 1×10^{-9}

Image and IF Rejection:
60dB Minimum

Band Switching and Settling Time:
50msec

Frequency Sense: No inversion

Input, Output and Calibrate Connectors:
Precision Type N

Input VSWR: 2.5:1

Input Impedance: 50 Ohms

Input Attenuator:
0 to 70dB, in 10 dB steps

Interface: IEEE-488

Power Requirements:
115/230 VAC +/- 10%
50Hz to 60 Hz, Single phase