

DSI – 110

**AUTOMATED MEASUREMENT
SYSTEM**



Features

Exceptional RF measurement sensitivity and accuracy flexible signal collection, storage, retrieval and report preparation capabilities

Multiple Modes of Operation

Manual receiver operation with automated data logging

Semi-automated receiver control via the computer fully automatic with user – created and “canned” sweeps and test setups

Automated Calibration

Tailored to the needs of the user

Analog controls for fine adjustments

Computer control with intuitive, “analog feel”

Alpha numeric displays of frequency, attenuation, BW, Gain and DVM

High-resolution computer graphic displays with zoom and snapshot capabilities

Hot –keys to accelerate operation

Modern, Interactive Software for efficient Measurement and Reporting

Intuitive procedures eliminate dependency on manuals and handbooks

Easy creation, editing, and storage for setups and test routines

Powerful integration capability with test equipment and laboratory instrumentation

Drivers supplied for printers and multi-pen HP-GL plotters

Build-in word processor with graphics capture aids report preparation

Graphs can be quickly integrated with text and tabulate data

Windows implementation provides access to spread – sheets, database, and other applications

Ruggedized, Portable Lightweight Hardware for both Laboratory and Field Use

R-110 and R-110B Receivers are lightweight and can be hand-carried on airplanes

Small footprint desktop 486 computer conserves space in the lab

Optional portable computers weigh only 18 pounds; 4-pound printer available

Full Range of Ancillary Equipment and Options

R-1580	Microwave Downconverter (extends range 22GHz)
R-110-40A	Panoramic Display
RG-1000A	Raster Generator
R-1250-10A	Antenna Kit
IG-1700	Impulse Generator
CG-1800	Comb Generator
LFE	Low Frequency Extender Option (extends range down to 100Hz And adds 50 and 100Hz bandwidth)

System Configurations

The basic **DSI-110** system consists of the **R-110B** plus a powerful 486 desktop computer, a special System I/O board and proprietary software. For field applications a 486 portable computer with color display can be supplied in place of the standard desktop computer.

For applications not requiring FM, wide bandwidths, DVM display, pulse stretch and slideback, the lower cost **R-110** receiver can be substituted for the **R-110B**. Options for the standard receiver are also available.

Specifications

System

Measurement Precision: **For SNR>10dB, 4dB (un calibrated), 2dB with calibration**

	Sources
Sensitivity:	Typically 10dB above Johnson noise
Sweep Speed:	60 steps per sec (typ)
Self-test:	Comprehensive startup and pre-measurement checks
Document Preparation:	Word processor with graphics capture for annotation of Recorded data

Receiver

Noise Figure:	Less than 13 dB (10dB typ. in mid-range)
IF and Image Rejection:	At least 80 dB
Spur-free Dynamic Range:	Better than 60dB
Frequency Stability:	1 ppm per year
Autoranging:	Selectable - uses 100dB 10dB step attenuator/receiver gain in 1dB steps

DVM:

Peak-hold, 100 MHz BW, 12 bit A/D, 4-digit

IF Output: 1450 MHz, 21.4 MHz

Video Outputs: AM (peak) and FM, Linear/Log, Z-axis; Aux video with pulse stretch and slideback, FM video

Audio: >1 Vrms; ± 3 dB, 20Hz-20 kHz

Computer: Pentium, portable or desktop

System Interface

	R-110	R-110B
RF Connectors:	BNC	Type N
Video / IF:	BNC	BNC
Instrumentation:	IEEE-488.2/IEC bus	
Data:	RS-232 serial port	
Printer:	Parallel port	



“ Detection with Direction “

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