

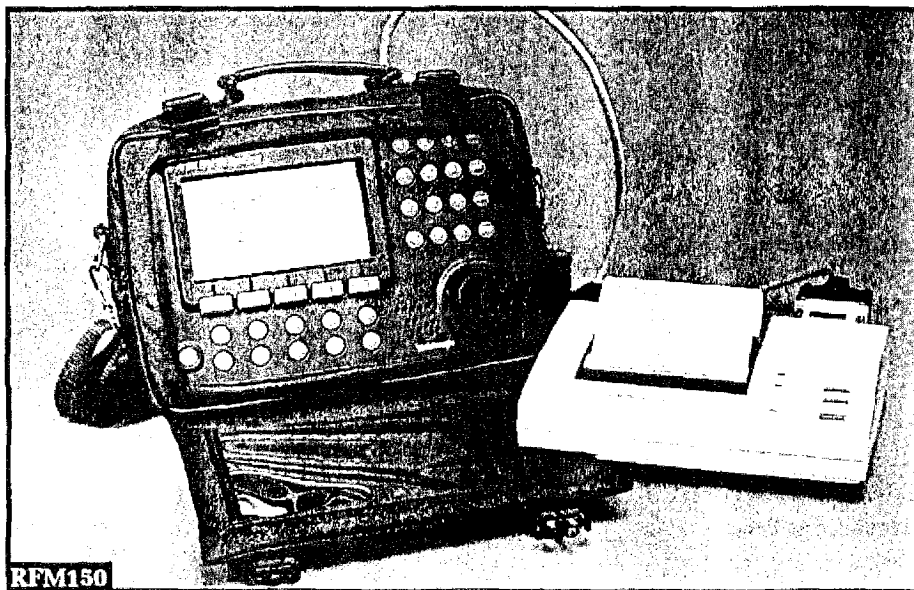
# SignalScout™ Signal Level Meter

## RFM150



### Features

- 5 MHz to 1 GHz Frequency Range
- Guaranteed  $\pm 1$  dB Accuracy Over Wide Temperature Range
- In-service Carrier-to-Noise Measurement
- In-service Hum Measurement
- FM Deviation Measurement
- Multiple Level Modes
- Channel Spectrum Display
- Multi-format Compatible – NTSC, PAL, SECAM, Digital Carriers
- Reference Sweep with up to Eight References
- Local Storage of Measurement Results
- Easy-to-use – Most Selections Require Two Keystrokes or Less. Numeric Keypad Simplifies Channel or Frequency Selections.
- Interface Port for Uploading Test Results to a PC, Downloading Test Sequences and Configuration to the RFM150, and Printing Directly to a Printer
- Internal Timer Function for FCC 24-Hour Testing and Other Time-specific Testing
- NICAM and Dual Aural Carrier Compatible
- Powerful Windows-based CSS150 Software Available to Control and Display Measurements
- FM Detector and Speaker
- Durable and Weather-resistant
- Three-year Parts and Labor Warranty
- CE Marking



RFM150

### RFM150 SignalScout Signal Level Meter

The RFM150 SignalScout is a high-performance RF signal level meter designed to meet the demanding requirements of cable TV applications.

#### THREE-YEAR LIMITED WARRANTY

SignalScout is protected under Tektronix Warranty 4 covering parts and labor for a period of three years. Specifics on Warranty 4 can be obtained directly from Tektronix or its subsidiaries.

#### RUGGED DESIGN

The rugged mechanical construction using high impact material and an internal shock system provide excellent resistance to damage. The included padded carrying case protects SignalScout during transport, yet allows use of all functions while still in the case. The weather-tight construction guarantees operation in varying weather conditions.

### Characteristics

#### RF INPUT

**Input Impedance** – 75  $\Omega$ .

**Return Loss** –  $>14$  dB, 20 MHz to 1080 MHz.  
 $>8$  dB, 5 MHz to 20 MHz.

**Connector Type** – Replaceable F.

#### FREQUENCY

**Range** – 5 MHz to 1080 MHz.

#### CARRIER LEVEL MEASUREMENTS

$\pm 1$  dB  $-20$  dBmV to  $+60$  dBmV, ( $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ) Max;  $\pm 1.5$  dB  $-35$  dBmV to  $-20$  dBmV, ( $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ) T&P. (Typical for 5 MHz to 20 MHz).

#### CARRIER-TO-NOISE RATIO

**Accuracy** –  $\pm 2$  dB ( $0^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ) Max;  
 $\pm 2$  dB ( $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ) Typical.

**Repeatability** –  $\pm 1$  dB.

**Range** – Up to 48 dB (50 dB typical) for carrier amplitudes  $\geq 0$  dBmV ( $+60$  dB $\mu$ V) and for carrier frequencies  $\geq 50$  MHz. No external pre-selector or external preamp is required to meet the C/N range and accuracy specification.

**Audio Compatibility** – With NICAM, C/N measurement accuracy is guaranteed for out-of-service measurements only.

For your local Tektronix representative see the list in the back of this catalog or outside the U.S. call: 1-503-627-1933, inside the U.S. call: 1-800-426-2200.



See Tektronix on the World Wide Web:  
<http://www.tek.com>



Tektronix Measurement products are manufactured in ISO registered facilities.

# SignalScout™ Signal Level Meter

## New RFM150

### HUM

**Accuracy** – ±1% (0°C to +50°C) Max;  
±1% (-10°C to +50°C) Typical.

**Repeatability** – ±0.5%.

**Range** – 1% to 5%.

### AVERAGE POWER

(DIGITALLY MODULATED CARRIERS)

**Accuracy** – ±1 dB (0° C to +50° C) Max;  
±1 dB (-10° C to +50° C) Typical.

**Repeatability** – ±0.5 dB.

### SPECTRUM MODE

**Dynamic Range** – 50 dB.

**Reference Level Range** – 0 dBmV to  
+60 dBmV (+60 dBµV to +120 dBµV).

**Reference Level Resolution** – 1 dB steps.

**Spurious Free Dynamic Range** – -50 dBc  
(20 MHz to 1 GHz) -45 dBc (5 MHz to  
20 MHz).

**Marker Amplitude Accuracy** – ±1 dB for  
signals in the upper half of the display.

### General Characteristics

#### ENVIRONMENTAL

##### Temperature –

Operating: 0°C to +50°C (+32°F to +122°F).  
Non-operating: -20°C to +60°C (-4°F to  
+140°F).

**Humidity** – 5% to 95% from 0°C to +50°C.

##### Altitude –

Operating: 15,000 ft. (4,550 meters).  
Non-operating: 50,000 ft. (15,167 meters).

**Vibration** – Resonate searches of 0.020 in.  
(0.508 mm) on all three axes for 5 minutes  
per axis. Dwell for 10 minutes per axis at  
major resonance or 33 Hz if none found.  
Total vibration time is 45 minutes.

**Shock** – Three drops of 50 g on each face,  
11 ms duration, half-sine pulse shape.  
Eighteen drops total.

### POWER

**Battery Life** – 3.5 hours typical.

**DC Input Range** – 11 to 16 VDC.

**Maximum Input Current** – 1.0 A at 12 VDC  
supplied by external adapter or vehicle  
adapter.

### PHYSICAL CHARACTERISTICS

Dimensions	mm	in.
Height	280	11
Width	200	8
Depth	90	4
Weight	kg	lbs.
Net	3.6	<8

## ORDERING INFORMATION

For price information: Outside the U.S. contact your local Tektronix representative,  
inside the U.S. see the price list in the back of this catalog.

### RFM150

SignalScout Signal Level Meter.

**Includes:** Instruction Manual (070-9006-00),  
Quick Operation Manual (070-9002-00), 120 VAC  
Power Pack (119-4855-00), Precision Female-  
Female Type-F Adapter (103-0301-00), RS-232C  
DB-9 Male-Female Cable Assembly, Padded  
Carrying Case (016-1345-00), Vehicle Adapter  
(119-4860-00), CSS Software (070-0112-00).

**Opt. 01** – Additional non-volatile memory (adds  
128 K of NVRAM).

**Opt. A1** – Universal Euro 220 VAC Power Pack.

**Opt. A2** – UK 220 VAC Power Pack.

**Opt. A3** – Australian 220 VAC Power Pack.

**Opt. A6** – Japan 120 VAC Power Pack.

### MEASUREMENT SERVICE OPTIONS

**Opt. C3** – Three years of Calibration Services.

**Opt. C5** – Five years of Calibration Services.

**Opt. R5** – Repair warranty extended to cover  
five years.

See page 581 for further information.

### OPTIONAL ACCESSORIES

**Precision BNC to F-Series Adapter** –  
Order 103-0310-00.

**Opt. 03** – Thermal Printer. Order HC411.

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