



**SIGNAL LEVEL METERS**

**SAM III**

**Measurement Ranges**

**Frequency:** 4 MHz to 450 MHz; 470 MHz to 890 MHz optional.

**Amplitude:** -40 dBmV to +60 dBmV

**Temperature:** 0° to 120 °F.

**Hum:** 0.5% to 5%.

**Voltage:** 5 to 100 Vac-dc.

**Accuracy**

**Frequency:** ±1 MHz.

**Amplitude:** ±0.5 dB at room temperature; ±1.0 dB over temperature when calibrated at that temperature.

**Hum:** ±0.3%.

**Volts:** 10%.

**Calibrator**

**Frequency:** 150 ± 2 MHz.

**Amplitude:** +20 dBmV ±0.25 dB over temperature range.

**Analyzer**

**Amplitude Range:** 40 dB on screen; -40 to +60 dBmV.

**Frequency Range:** 4 to 450 MHz; 470 to 890 MHz optional.

**Rate:** Variable 2 Hz to 40 Hz, plus manual.

**Dispersion:** Variable from 0.15 to 450 MHz.

**Horizontal Output:** +0.5 to +9 V.

**Vertical Output:** 0 to 3 V.

**Keyboard Programming**

**Standard Channels, VHF:** Video 2 to 60; Audio 2 to 60.

**HRC Channels, VHF:** Video 2 to 60; Audio 2 to 60.

**UHF Option:** UHF 14 to 83.

**Frequency:** Preset for 0.1 MHz Steps, 4 to 450 MHz, UHF—470 to 890 MHz.

**General**

**IF Bandwidth:** 280 kHz at 3 dB point; 600 kHz at 40 dB point.

**Video Output:** Approx. 1 V.

**Power:** Internal Nicad Batteries; External 110 Vac/60 Hz or 200 Vac/50 Hz optional.

**Battery Life:** Typically 5 hours, continuous operation.

**Size:** 17.8 cm (7 in.) high, 27.9 cm (11 in.) wide, 25.4 cm (10 in.) deep.

**Weight:** 4.99 kg (11 lb) net.

**Option**

**470 to 890 MHz Measurement Range.** Factory installed only.

**Configurations**

Model	Description
SAM III	450 MHz SAM
SAM III-450/UHF	450 MHz SAM with UHF option (470 MHz to 890 MHz)

**Furnished Accessories**

- Instruction Manual
- Shoulder Strap
- Voltmeter Leads
- SAM Bag Carrying Case

**FACTORY/FOB**  
 Indianapolis, IN

**Model SAM III**  
**Model SAM III-450/UHF**

# Microprocessor Controlled Meter

- LCD Tuned Frequency Display
- Keyboard or Spin Knob Tuning
- Switch Tuning from Video to Audio Carrier
- 60 Channels Programmed in Memory
- Optional Remote Control Interface

**Keyboard Tuning**

At the heart of the SAM III is the microprocessor and its digital keyboard interface.

By adding computer memory to the tuning circuitry, all standard channels and HRC channels in the 450 MHz CATV band have been pre-programmed for the operator. This programming includes both the video carrier and the audio carrier for all of the channels. These channels may be called up in any order, simply by selecting the channel designation (2-60), and then the format (either standard channel or HRC). With only three keystrokes, any channel across the band may be tuned. With one additional switch, the audio of that channel may be selected.

For comprehensive checks, a NEXT button may be selected after a channel has been selected. This key automatically tunes up exactly one channel. If channel 3 video has been tuned, and the NEXT key is pushed, channel 4 will be tuned.

In addition to preprogrammed channels within memory, any frequency within .1 MHz across the band, can be selected simply by pushing the correct keys for the frequency, and then pressing the FREQ key. A CLR key is included to clear the keyboard and reset it for the next entry.

Special channel configurations are available for some countries. Please consult the factory for specific standards.

**Spectrum Analyzer**

This is a very useful feature, especially when used with systems which do not have a spectrum analyzer. The only additional equipment required is an oscilloscope. The analyzer may be operated with the full 450 MHz dispersion with high scan rates and no scan loss. It features at least 40 dB of screen range, manual sweeping, variable rate, and variable dispersion. With the frequency display on the SAM III, unknown signals can be easily identified to within 100 kHz.