



M. Schmidt

TYPES DMS-107 AND DMS-107-1 SIGNAL PROCESSORS

The CEI Types DMS-107 and DMS-107-1 Signal Processors provide demodulation of AM, FM, CW, and Pulse signals from wideband tape recorders such as the RCA TR-22A and Ampex 901. They are tunable over an input frequency range of 0.1 to 10 MHz in a signal band. Signals in this range are translated up to 21.4 MHz for demodulation. Provision is made to lock either type unit to a desired frequency using the DAFC (digital automatic frequency control) capability of a CEI frequency counter such as the DRO-302A or DRO-320. In addition to providing a six-digit display of the tuned frequency, a counter will hold the Signal Processor within ± 100 Hz of the set frequency for an indefinite period. Provision is also made to operate the units with an external local oscillator source. Eight IF bandwidths are provided in the DMS-107 Signal Processor: 20, 50, 100, 300, and 500 kHz, 1, 2, and 3 MHz. The DMS-107-1 differs only in that it has a 5.5 MHz bandwidth in lieu of 2 MHz.

All active elements in the units are solid state. The tuned frequency is indicated on an illuminated 26-inch steel tape dial for maximum readability and resetability. A front-panel control is used to set the gain. In addition to video and predetection IF outputs, two audio outputs are provided, a front-panel phones jack and a rear-panel barrier strip.

SPECIFICATIONS

Tuning Range	100 kHz to 10 MHz in one band
Types of Reception	AM, FM, CW, and Pulse
Input Impedance	50-75 ohms
Input Level Range.	30 mV to 1V peak-to-peak
IF Center Frequency	21.4 MHz
IF Bandwidths:	
DMS-107	20, 50, 100, 300, and 500 kHz, 1, 2, and 3 MHz
DMS-107-1	20, 50, 100, 300, and 500 kHz, 1, 3, and 5.5 MHz
Predetection IF Output	100 mV, minimum, into 50-ohm load
Video Output Level	2V, peak-to-peak into 91-ohm load
Audio Outputs	100 mV, minimum, into 600-ohm load, and headphones jack
Video Amplifier Response	70 Hz to 4 MHz at 3-dB points
Local Oscillator Output.	100 mV, minimum, into 50-ohm load
External Local Oscillator Input	1V, rms, into 50 ohms
Signal Monitor Output	21.4 MHz center frequency

SPECIFICATIONS (Continued)

Lowest Tuned Center Frequency
where LO leakage at IF Output
is less than 30 dB below nominal
output level (typical):

20-, 50-, and 100-kHz Bandwidths	100 kHz
300-kHz Bandwidth.	600 kHz
500-kHz Bandwidth.	1 MHz
1-MHz Bandwidth	1.25 MHz
2-MHz Bandwidth	2.2 MHz
3-MHz Bandwidth	2.8 MHz
5.5-MHz Bandwidth	6 MHz
Input Power	115 or 230 Vac, 50-400 Hz
Power Consumption	10 watts, approximately
Dimensions.	19 inches wide, 3.5 inches high, and 18 inches deep, approximately
Weight	18.5 pounds, approximately

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