WATKINS-JOHNSON

906.00

WJ-9518BE FDM DEMODULATOR

STANDARD FEATURES

- Six Independent SSB Demodulators With Tuning Range From 0 to 15 MHz
- CCITT Tuning for 960 or 2700 Channel Basebands
- Independent Inputs With Provisions for Bridging Between Demodulators
- IEEE-488 Bus Compatible
- Compact Size — 3.5 inches High
- Fine Tuning ± 50 Hz

DESCRIPTION

The WJ-9518BE FDM Demodulator contains six delay equalized independent SSB demodulators which are tunable over the frequency range of from 0 to 15 MHz. Control of all functions except gain and headphones level for the six demodulators is via a 30 button keypad. The gain of each demodulator is continuously controllable by individual gain controls. LED displays provide a simultaneous display of the tuned frequency and the operating mode of each demodulator. A front panel headphone output monitors the selected demodulator.

Control of the WJ-9518BE FDM Demodulator can be either local, via the front panel controls, or remote, via the standard IEEE-488 Interface. In the remote mode, bus commands permit control of tuned frequency, sideband selection, demodulator gain, bridging of the input signals to the six demodulators, and fine tuning.

For operation convenience the WJ-9518BE is provided with pre-programmed tuning to standard CCITT frequency plans of 960 or 2700 channels and scanning capability.

The WJ-9518BE FDM Demodulator is designed for mounting in a standard 19-inch equipment rack. It measures 19 inches wide, 22 inches deep and occupies 3.5 inches of vertical rack space. The weight of the unit is approximately 35 lbs.

For Further Information Please Contact:
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SPECIFICATIONS

Number of Inputs	Six, with provisions for bridging
Input Range	300 Hz to 15 MHz
Input Impedance	75 ohms, unbalanced
Input Level	–25 dBm nominal, single tone
Gain Adjust	± 10 dB front panel or remote
Detection Mode	SSB, upright or inverted spectrum
Output Level	1 Vrms nominal into 600 ohms
Output Impedance	600 ohms, unbalanced BNC connector
Output Frequency Response (3 dB)	300 Hz to 3500 Hz minimum
Bandpass Ripple	1.5 dB maximum
Harmonic Distortion of Output	55 dB, minimum, below nominal output of 1 kHz tone
Spurious Outputs	50 dB minimum below nominal output
Residual Noise (12 kHz to 15 MHz)	57 dB minimum, below nominal output with gain set for –25 dBm test tone input
Crosstalk Between Demodulators	57 dB minimum
Adjacent Channel Rejection	45 dB minimum at 300 and 3700 Hz
Noise Power Ratio (NPR)	47 dB, minimum, with 600 Channel Noise Load at –7 dBm and gain set for –25 dBm test tone input
Group Delay:	
400 Hz to 3400 Hz	200 μsec maximum
300 Hz to 3500 Hz	500 μsec maximum
200 Hz to 3600 Hz	1000 μsec maximum
Tuning Normal:	
Local or Remote	1 kHz per step minimum
Fine Tuning Local or Remote	± 50 Hz 5 Hz per step
Frequency Readout	LED, 1 kHz resolution
Video Baseband Output:	
Level	–25 dBm nominal
Passband (3 dB)	300 Hz to 15 MHz minimum
External Reference	1 MHz
Translation Accuracy	± 3 Hz maximum (Internal Adjustment)
Headphones Output Level	Adjustable to + 10 dBm minimum into 600 ohm load with demodulator output at nominal level
Temperature Range:	
Operating	0°C to 50°C
Meets all Specifications	15°C + 35°C
Power Requirements	115/230 VAC ± 10% 50–60 Hz
Power Consumption	50 Watts, approximately
Size	3.5 inches high, 19 inches wide, and 22 inches deep
Weight	35 lbs., approximately