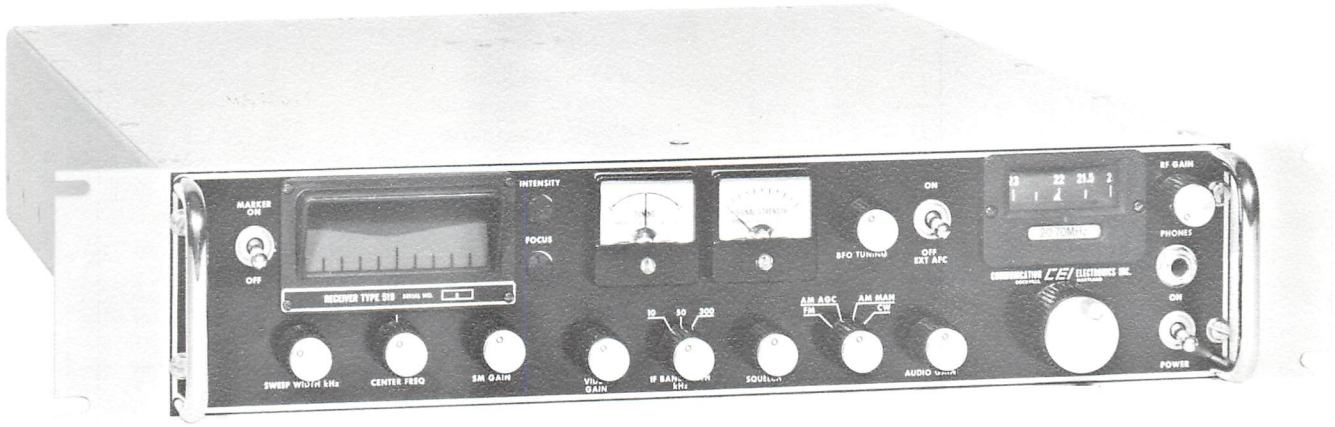
Technical Data

DATA SHEET 153.50 6/1/67

TYPE 519 RECEIVER



The CEI Type 519 Receiver provides AM, FM, and CW reception in the 20 MHz to 70 MHz frequency range. It is a dual conversion unit with a first IF of 10 MHz for high image rejection and a second IF of 455 kHz. Three IF bandwidths may be selected by means of a front-panel switch: 10 kHz, 50 kHz, or 300 kHz. A built-in signal monitor with a maximum sweep width of 300 kHz and a resolution of 2.5 kHz is provided. Other features of the 519 include a squelch circuit with front-panel adjustable threshold and a crystal-controlled beat frequency oscillator (BFO). A steel tape dial is used to indicate the frequency to which the receiver is tuned. The receiver's 50-MHz tuning range is spread over 26 inches of tape for ease of readability and resetability.

Provision is made to operate the 519 with an external counter (see data sheet 723.20, DRO-290A) which gives a five-digit Nixie display of the frequency to which the receiver is tuned. Thus, the frequency can be read within ±100 Hz over the entire tuning range. The counter contains a DAFC (digital automatic frequency control) circuit which permits locking the receiver's local oscillator to the counter in 100-Hz increments. When used, the DAFC circuit counteracts local oscillator drift, resulting in the receiver's stability equaling that of the counter's extremely accurate reference source.

SPECIFICATIONS

Tuning Range	20-70 MHz in one band
Types of Reception	AM, FM, and CW
IF Bandwidths	10 kHz, 50 kHz, and 300 kHz
Noise Figure	6 dB, maximum
Sensitivity	
300-kHz Bandwidth	AM: 4-μV input modulated 50% by 1-kHz tone produces 10-dB (s + n)/n, minimum FM: 6-μV input modulated at 1-kHz rate with ±100-kHz deviation produces 21-dB (s + n)/n, minimum
50-kHz Bandwidth	AM: 1.75-μV input modulated 50% by 1-kHz tone produces 10-dB (s + n)/n, minimum FM: 2.2-μV input modulated at 1-kHz rate with 17-kHz deviation produces 21-dB (s + n)/n, minimum

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SPECIFICATIONS - Cont'd

10-kHz Bandwidth	AM: 0.75-μV input modulated 50% by 1-kHz tone produces 10-dB (s + n)/n, minimum FM: 1.1-μV input modulated at 1-kHz rate with 3.5-kHz deviation produces 21-dB (s + n)/n, minimum
Image Rejection	65 dB, minimum
IF Rejection	90 dB, minimum
Local Oscillator Output	50 mV, minimum
Local Oscillator to Antenna Conduction	15 μV, maximum
IF (predection) Output	100 mV, minimum, into 50-ohm load for input signal levels above AGC threshold
Output Stability with AGC	
300-kHz Bandwidth	AM: Output varies less than 5 dB for input signal range of 4 μV to 10 mV FM: Output varies less than 3 dB for input signal range of 1.5 μV to 10 mV
50-kHz Bandwidth	AM: Output varies less than 5 dB for input signal range of 1.75 μV to 10 mV
10-kHz Bandwidth	AM: Output varies less than 5 dB for input signal range of 0.75 μV to 10 mV
Video Output Level	5 volts, rms, minimum, across 10 k-ohm load
Video Frequency Response	Within 3 dB from 20 Hz to 130 kHz (300-kHz bandwidth)
Audio Output	100 mW, minimum, into 600-ohm load or headphones
Audio Frequency Response	Within 3 dB from 20 Hz to 20 kHz (300 or 50-kHz Bandwidths)
BFO Range	20 kHz, minimum
AFC Capability	Externally controlled
Signal Monitor Section	
Sweep Width	0 to 300 kHz
Resolution	2.5 kHz
Sweep Rate	22.5 Hz, nominal
Flatness of Response	±1 dB
Input Power Required	115 or 230 Vac, 50-400 Hz
Power Consumption	16 watts
Weight	18 lbs., approximately
Dimensions	3.5 inches high, 17.5 inches deep, and 19 inches wide

PRICE: $3,100.00

FOB Rockville, Maryland. Taxes extra where applicable. Price and specifications subject to change without notice.