



Technical Data

TYPE 601A VHF RECEIVER



The CEI type 601A Receiver is an AM-CW, double-conversion, single-band superheterodyne which tunes from 54 to 260 mc. Particular features of the receiver include the following: a conventional input and a reference signal input; two simultaneously operating IF sections, one of 100-kc and one of 50-kc bandwidth; two transistorized video amplifiers equipped with individual gain controls and individual outputs; a transistorized audio amplifier equipped with separate gain control, phone jack, and speaker terminals; and a carrier-level-controlled squelch circuit.

By means of the reference signal input, the receiver may be used to note the shift of an incoming carrier with respect to the frequency standard applied. For this reason, the receiver is often employed to observe Doppler effects in the frequency range of 54 to 260 mc. A crystal-controlled BFO is provided for the reception of CW signals when the external reference signal is not used.

Small size, low power consumption, and high performance have been obtained by the use of solid-state devices for those functions for which they are best suited and the use of Nuvistors where high gain, stability, and low noise figure at high frequencies are required.

SPECIFICATIONS

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| Type of Reception | AM and CW |
| Frequency Range | 54 to 260 mc |
| Dial Accuracy | ±1% |
| Fine Tuning | Front panel control |
| Input Impedance | 50 ohms, type BNC connector |
| Noise Figure | 6.5 db, maximum |
| Image Rejection | 50 db, minimum |
| IF Rejection | 100 db, minimum |
| Oscillator Radiation at Antenna Input | 40 μ v, maximum |
| Oscillator Frequencies | |
| 1st Local Oscillator | Incoming signal plus 21.4 mc |
| 2nd Local Oscillator | 18.9 mc |

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|------------------------------------|---|
| Intermediate Frequencies | 21.4 mc and 2.5 mc |
| IF Bandwidths | 50 kc and 100 kc |
| Sensitivity | |
| 50-kc Bandwidth | 1.75 μ v input, modulated 50% at 1 kc rate, produces 10 db (s plus n)/n, minimum |
| 100-kc Bandwidth | 2.5 μ v input, modulated 50% at 1 kc rate, produces 10 db (s plus n)/n, minimum |
| Output Stability | Output varies less than 6 db for an input change of 50 db |
| Manual Gain Control Range. | 100 db, minimum |
| Video Output Level | 5 volts, rms, across a 10K ohm load |
| Video Amplifier Response | \pm 2 db from 100 cps to 50 kc |
| Audio Output Level | 100 mw across a 600 ohm load, balanced or unbalanced |
| Audio Amplifier Response | \pm 2 db from 100 cps to 30 kc |
| Signal Monitor Output. | Output at 21.4 mc center frequency provided to operate CEI Signal Monitors |
| BFO | Crystal-controlled at 2.5 mc, variable \pm 20 kc. Operates on both IF bandwidths simultaneously |
| Reference Input | Input provided at 50-ohm impedance for injection of external reference signals |
| Meter | Signal Strength |
| Squelch Sensitivity | 0.5 μ v or greater at antenna input at maximum gain |
| Power Input | 115 volts, 50-400 cps |
| Power Consumption | 32 watts, approximately |
| Size | 19-inches wide, 3.5-inches high, and 14.5-inches deep |
| Weight. | 12 lbs, approximately |

PRICE \$1,875.00

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