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C BULLETIN

COMMUNICATION ELECTRONICS, Inc.

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CEI-770

Q-bullet

RECEIVER

CEI Type 770 Receiver provides AM, FM, CW and Pulse reception over the UHF frequency range of 235-1000 mc in two bands. Transistors, Nuvistors and ceramic tubes are employed for space, heat, and weight reduction.

Type of Reception	AM, FM, CW, and Pulse CW on 100 kc bandwidth only
Frequency Range	235-1000 mc in two bands Band A: 235-500 mc Band B: 490-1000 mc
Signal Inputs	Antenna input for Band A Antenna input for Band B Reference input for marker injection
Signal Outputs	Video output Signal monitor output 21.4 mc IF output Local oscillator output
<u>Band A</u>	
Noise Figure	10 db max.
Image Rejection	60 db min.
IF Rejection	70 db min.
Oscillator Radiation at Input of Receiver	30 μ v max.
Antenna Input Impedance	50 ohms, nominal

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Band B

Noise Figure 12 db max.

Image Rejection 65 db min.

IF Rejection 70 db min.

Oscillator Radiation at
Input of Receiver 75 μ v max.

Antenna Input Impedance 50 Ω , nominal

Band A and Band B

IF Bandwidth 100 kc, 500 kc, and 4 mc
switchable from front panel

IF Frequencies 60 mc
21.4 mc
2.5 mc, 100 kc bandwidth only

Gain Control Characteristics

Pulse	BW	Charge Time	Discharge Time
	4 mc	10 μ sec (max.)	0.3 sec
	500 kc	100 μ sec (max.)	0.3 sec
Normal	All 3 IF's	0.3 sec	0.3 sec
Manual	All 3 IF's		

Overall Pulse Response for 4 mc
Bandwidth (Manual Gain Operation)

Rise time or decay time no greater
than 0.35 μ sec; pulse sag no greater
than 10% for an 800 μ sec pulse width.

Sensitivity

100 KC Bandwidth

AM: 5 μ v input, modulated 50% at 1 kc
rate produces 10 db $\frac{S+N}{N}$, min.

FM: 5 μ v input, modulated at 1 kc rate
with 30 kc deviation produces
21 db $\frac{S+N}{N}$, min.

FM Sensitivity: 0.1 V per kc deviation, min.

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Sensitivity (cont.)

500 KC Bandwidth

AM: 11 μ v input, modulated 50% at
1 kc rate produces 10 db $\frac{S+N}{N}$, min.

FM: 11 μ v input, modulated at 1 kc
rate with 150 kc deviation produces
21 db $\frac{S+N}{N}$, min.

FM Sensitivity: 0.02 V per kc deviation, min.

Pulse: -93 dbm tangential sensitivity, min.

4 MC Bandwidth

AM: 30 μ v input, modulated 50% at 1 kc rate
produces 10 db $\frac{S+N}{N}$ min.

FM: 30 μ v input, modulated at 1 kc rate
with 1 mc deviation produces 21 db
 $\frac{S+N}{N}$, min.

FM Sensitivity: 0.004 V per kc deviation, min.

Pulse: -88 dbm tangential sensitivity, min.

Video Output

2 V peak to peak across 100 Ω load

FM Output Stability

Less than 2 db variation for inputs above 10 μ v

AM Output Stability

Less than 10 db variation for 70 db input
change above 10 μ v.

Video Amplifier Response

20 cps to 3 mc at 3 db points

Signal Monitor Output Frequency

21.4 mc

Signal Monitor Output Level

50 μ v for 4 μ v input

Signal Monitor Output Bandwidth

Compatible with CEI 9370 Signal Monitor to
produce 3 mc display

21.4 mc IF Output

200 mv min. into 50-ohm load, available during
100 kc CW operation only

Local Oscillator Output

75 mv \pm 25 mv across 50 Ω

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Front Panel Switches

Power on-off
RF tuning band
IF bandwidth
Function: AM, FM, CW, Pulse
Gain Control: AGC-Manual

Front Panel Controls

BFO pitch
RF gain
Video gain

Front Panel Meters

Signal Strength, for AM, FM and Pulse only
Tuning, for AM and FM only

Dial Accuracy

Band A: 0.5%
Band B: 1.0%

Dial Resetability

0.25% (Fine tuning provided)

Power Input

48-62 cps, internal taps for operation
at 105, 115, or 125 V

Power Consumption

55 watts, approx.

Size

19 x 3 1/2 x 16 in., rack mounted

Price \$3,700.00

F.O.B. Bethesda, Maryland. Taxes extra where applicable.
Prices and specifications subject to change without notice.