

OSCILLATOR TEST NO. 1, CT212

(JOINT-SERVICES DESIGNATION: TEST OSCILLATOR 85 kc/s - 30 Mc/s CT212)

SUMMARY OF DATA

PURPOSE

To provide a variable r.f. signal amplitude modulated, frequency modulated or continuous wave for use in fault tracing and emergency re-alignment of wireless receivers.

BRIEF DESCRIPTION

The instrument is housed in a die-cast aluminium alloy container which is hermetically sealed and provided with a carrying strap. A set of leads and accessories is contained in the lid. The carrier frequency is set by means of a 7-position band switch and tuning control. A reactance valve frequency modulates the master oscillator, the deviation being adjustable up to a maximum of 30 kc/s. Amplitude modulation depth is fixed at 30%, the 1 kc/s output of the tone generator being



TEST OSCILLATOR CT212

available separately for testing audio circuits. Carrier and modulation levels are set up with the aid of a built-in meter and the output is adjustable from 1 μ V up to 100 mV by coarse and fine switched attenuators. The output impedance is 75 ohms unbalanced at full output or 7.5 ohms at one tenth indicated output.

ELECTRICAL PERFORMANCE

CARRIER FREQUENCY: 85 kc/s to 32 Mc/s in seven bands as follows:-

- 1 85 kc/s to 250 kc/s
- 2 250 kc/s to 700 kc/s
- 3 700 kc/s to 2 Mc/s
- 4 2 Mc/s to 4 Mc/s
- 5 4 Mc/s to 8 Mc/s
- 6 8 Mc/s to 16 Mc/s
- 7 16 Mc/s to 32 Mc/s

The short term frequency stability is within $\pm 2\%$.

R.F. OUTPUT: Variable in fixed steps of 2 dB from 1 μ V to 100 mV. Reference level, 1 μ V in 75 ohms, is 0 dB. A fine attenuator provides ten 2 dB steps and a coarse attenuator four 20 dB steps. Calibration in μ V and dB above 1 μ V. Accuracy ± 2 dB except below 6 μ V where it is ± 1 μ V.

MODULATION: A.M. preset to approximately 30% at 1 kc/s. F.M. deviation continuously variable and linear up to 30 kc/s with approx. calibration marks at 0, 10, 20 and 30 kc/s. No provision is made for external modulation.

OUTPUT IMPEDANCE: Coaxial output with terminating unit giving 7.5 ohms or 75 ohms unbalanced. At the lower impedance, the output is reduced to approximately one tenth of that indicated by the attenuator settings.

A.F. OUTPUT: 1 kc/s modulation tone available at separate terminals. Termination should be not less than 600 ohms.

POWER REQUIREMENTS AND CONSUMPTION

The equipment may be operated from either a.c. mains or battery as follows:-

Mains: 110, 115, 120, 220, 230 or 240V, 45-65 c/s, 50 VA (approx.)

Battery: 12V, 3.5A (approx.)

PHYSICAL DATA

Height 8½ in. Width 13½ in. Depth 10½ in. Weight 30 lb.

NEAREST COMMERCIAL EQUIVALENT

None.

REMARKS

The equipment comprises ZD00783 Oscillator, Test No. 1 and ZD00784 Lid Assembly. The following items are fitted in the lids:-

ZD00293 Units, Terminating R.F. No. 3

ZD01505 Connector, 3-point, No. 102, 5 ft.

ZD02335 Connector, 2-point, 4 ft and Filter Assembly No. 1

2 off Z590109 Fuse 1 amp (A.C. Supply)

1 off Z590107 Fuse ½ amp (H.T. Supply)

1 off A.P.18521 Fuse 10A (D.C. Supply)

HANDBOOK

B.R.1771(23).

ESTABLISHMENT LIST

S1115.