

A.P. 63729 TEST-SET, R.F. POWER AND MODULATION METER,  
30-400 Mc/s, 200 WATTS, CT214

Joint-Services Designation:- Test Set, R.F. Power and Modulation Meter, CT214

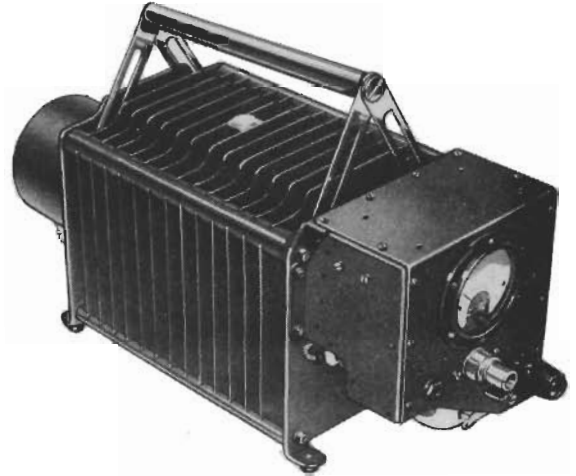
SUMMARY OF DATA

PURPOSE

Measurement of r.f. power and depth of amplitude modulation within the frequency range 30-400 Mc/s and, with reduced accuracy, up to 1000 Mc/s. Powers up to 200 watts may be measured. Amplitude distortion may be estimated, usually by means of an external oscilloscope.

BRIEF DESCRIPTION

The instrument consists essentially of a section of coaxial transmission line terminated by an oil-cooled resistive load and having three crystal probes. Two of the probes are used for power measurement, a function switch giving ranges of 0-20 watts and 0-200 watts. The third probe is for modulation measurements; depth of modulation is measured by rectifying the r.f. signal and comparing it with the current obtained by rectifying the extracted a.f. signal. The resistive load (75 ohms) is matched to the characteristic impedance of the line. The CT214 requires no tuning to frequency. The meter scales give direct readings of power and modulation depth. Coaxial connectors for joining the CT214 to standard transmitters are provided. An impedance transformer (A.P.64009), which is not provided with CT214, permits connection to be made to transmitters having 50 ohm output impedance.



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PERFORMANCE

Frequency Coverage	30-400 Mc/s (and, with reduced accuracy, up to 1000 Mc/s)
Input Impedance	75 ohms
V.S.W.R.	Not less than 0.93 over range 30-400 Mc/s and not less than 0.9 on the extended range (up to 1000 Mc/s)
Power Ranges	0-20 watts 0-200 watts
Accuracy of Power Ranges (at 300 Mc/s)	$\pm 5$ per cent at three-quarters of maximum scale value and up to $\pm 10$ per cent at other parts of the scale
Modulation Depth	$\frac{100}{0-90}$ per cent

POWER REQUIREMENTS AND CONSUMPTION

Nil

PHYSICAL DATA

Approx. overall dimensions in carrying case:-

Height 11 in. Width  $10\frac{1}{2}$  in. Length 21 in.

Weight 30 lb (approx.)

## ACCESSORIES

A.P. 64006 Connector, flexible

A.P. 64008 Connector, flexible

A.P. 62716 Connector, coaxial, major to minor, female

A.P. 62718 Connector, flexible

The above accessories are supplied as part of the Test-Set.

## HANDBOOK

B.R.1771(20)

## ESTABLISHMENT LIST

E.1115

## PRODUCTION SPECIFICATION

15627