# VAYNE KERR INNOVATIONS IN INSTRUMENTATION

### audio-video instrumentation

Wayne Kerr, makers of the world's most comprehensive range of electronic bridges, have also developed many precision signal-generating, attenuating, measuring and analysing instruments for frequencies from DC to 60 Mc/s. These instruments combine maximum versatility with simplicity of operation, and are in widespread use throughout Government Establishments, Broadcasting Authorities, the Armed Services and all types of scientific and industrial laboratories.

### INSTRUMENT-OF-THE-MONTH

VTVM measures 30 µV-100V from 20 c/s to 300 kc/s

The Wayne Kerr M121 AF Voltmeter has open, linear scales for the accurate measurement of voltages with negligible loading on the source. The mirror-scale movements are individually calibrated in r.m.s. values and in dB relative to 1mW in 600 ohms. Exceptional linearity and stability have been achieved by including the rectifying elements in a current-feedback loop. The h.t. supply for all stages is fully stabilised, eliminating any undesired effects of mains fluctuations. A cathode-follower output stage is included to permit feed-through amplification of up to 60dB.

Brief Specification:

Ranges 1, 3, 10, 30, 100 and 300mV, 1, 3, 10, 30 and 100 V r.m.s. (Multiplier for 300V.)

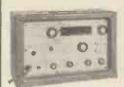
Accuracy Better than 1% f.s.d.



Input Impedance

1 mV to 10V (direct):  $\geq$  15 M $\Omega$  shunted by 20pF 1 mV to 10V (transformer):  $600\Omega$  and  $100k\Omega$ , balanced or unbalanced

30V and 100V (direct): 1 MΩ shunted by 15 pF



#### **AUDIO SIGNAL GENERATOR S121**

Very low harmonic content, 13-ft. tuning scale.

Frequency Stability Accuracy Output (600Ω) Hum level

10 c/s to 120 kc/s 100 ppm 1% ± 0.5 c/s -70 dBm to + 10 dBm at least 60 dB down

#### COMPLEX-WAVEFORM ANALYSER A321



High selectivity plus simple operation Frequency 20 c/s to 20 kc/s 1% ± 1 dB Stability Response Frequency: 2% Level: 5% or ± 1 dB Accuracy

#### WIDE-BAND ATTENUATOR 0251

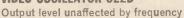


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Compact, high accuracy and stability Frequency DC to 60 Mc/s 0-61.5 db (0.5-dB steps) Range Impedance  $50\Omega$  or  $75\Omega$ +0.1 dB Accuracy

### VIDEO OSCILLATOR 022D



changes Frequency

10 kc/s to 10 Mc/s, plus mains - frequency square wave

Accuracy Output/

1% —51.5 to +10 dB on 1 Vp-p (alternatives: across  $75\Omega$  (alternatives: 1mW in  $75\Omega$ , or 1mW in  $50\Omega$ )

+ 0.5 dB Stability

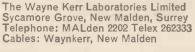
Electronic Bridges

FOR MORE INFORMATION use the coupon below (faster) or the reader enquiry service (easier).

Reader enquiry service code no.

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## WAYNE KERR





Please send me further information about the instruments I have indicated (tick appropriate box) 'Instrument-of-the-month' AF Voltmeter M121

Audio Signal Generator S121 Complex-Waveform Analyser A321 Wide-band Attenuator Q251 Video Oscillator O22D

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