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signed for use with the reference air line described above, the latter to produce a short circuit at the same reference plane as that of the TYPE 900-WO **Open-Circuit** Termination.

Connector Kits for Reference Air Line. Those desiring reference air lines of lengths other than those available as ready-made sections (see above) can now make their own sections out of GR precision rod and tubing (Part No 0900-9508 and 0900-9509, respectively). New connector kits include the necessary parts of the GR900 connector for such line fabrication as well as for the connection of reference air line to components.

TYPE 1360-B MICROWAVE OSCILLATOR TYPE 1422-CL PRECISION CAPACITOR

> These instruments are described elsewhere in this issue.

TYPE 1521-B GRAPHIC LEVEL RECORDER

> TYPES 1161-A AND 1162-A COHERENT DECADE FREQUENCY SYNTHESIZERS

Descriptions of these instruments will appear in the September issue of the General Radio Experimenter.

400-kc SOLID-STATE COUNTER

Experience with the TYPE 1150-A Digital Frequency Meter¹ and with the circuitry of its more sophisticated brother, the TYPE 1151-A,² has made possible a number of improvements that increase reliability, ease of operation, and frequency range.

A new model, the Type 1150-B, now replaces the original A-model. This digital frequency meter is based on the same simple, economical ring counting units used in its predecessors. The upper frequency limit, however, has been raised from 300 kc/s to 400 kc/s,







¹ R. W. Frank and J. K. Skilling, "A Five-Digit Solid-State Counter for Frequency Measurements to 220 kc," *General Radio Experimenter*, 36, 4, April, 1962. ² R. W. Frank, "Zero to 300 kc with Five-Digit Ac-curacy," *General Radio Experimenter*, 37, 6, June, 1963.



with no increase in price. Also, for increased operating convenience, a trigger-level control has been added, so that one can optimize the input sensitivity for all waveforms from sine waves to low-duty-ratio pulses. This greatly reduces the possibility of erroneous indications from noise or other unwanted signals.

The program of the new counter is based on clock pulses of 0.01 second, in contrast to the one-second intervals of the previous model. Thus, the maximum interval between display and count is reduced to 0.01 second, regardless of the counting and displaytime settings. Hence, idle time is less, and the counter program is more efficient.

The TYPE 1150-B Digital Frequency Meter provides an economical and reliable means of frequency measurement in the electronics industry and, with appropriate transducers, has many applications in general industry.

The counter is available for either bench or rack mounting and, optionally, with output provision for operating the GR TYPE 1136-A Digital-to-Analog Converter and the TYPE 1137-A Data Printer.

-R. W. FRANK

Туре		Price
1150-BM	400-kc Digital Frequency Meter, Bench Model	\$ 995.00
1150-BR	400-kc Digital Frequency Meter, Rack Model	995.00
1150-BPM	400-kc Digital Frequency Meter (with output for	
	printer or D/A converter), Bench Model	1050.00
1150-BPR	400-kc Digital Frequency Meter (with output for	
	printer or D/A converter), Rack Model	1050.00

INCREASED FREQUENCY RANGE FOR THE TYPE 1151-A DIGITAL TIME AND FREQUENCY METER



The TYPE 1151-A Digital Time and Frequency Meter ¹ measures frequency, frequency ratio, period, and multiple

¹R. W. Frank, "Zero to 300 kc with Five-Digit Accuracy," General Radio Experimenter, 37, 6, June, 1963. periods and is equipped with a full complement of input controls. Its guaranteed upper frequency limit, formerly 300 kc/s, has been increased to 400 kc/s, with no increase in price.