Table 1-1. Specifications

Output Characteristics

AM and Pulse Output for Driving 8730 PIN Modulators: Pulse output specially shaped for optimum rise and decay times.

Pulse Output for General Pulse Applications: Positive dc-coupled pulse 25 to 30 volts peak-to-peak, approximately symmetrical about 0 volt; source impedance, approximately 1000 ohms. No AM signal. Output signals available concurrently from separate front-panel connectors.

Internal Modulation

Square Wave

Frequency: Continuously variable from 50 Hz to 50 kHz, 3 decade ranges.

Symmetry: Better than 45/55%.

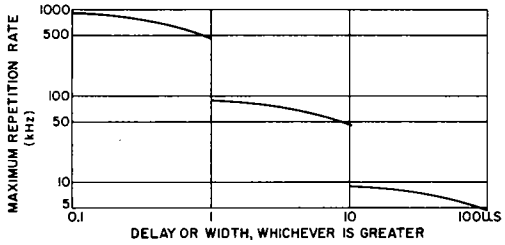
Pulse

Repetition Frequency: Continuously variable from 50 Hz to 50 kHz in 3 decade ranges.

Delay: Continuously variable from 0.1 to 100 μsec in 3 decade ranges between sync out pulse and rf output pulse.

Width: Continuously variable from 0.1 to 100 μsec in 3 decade ranges.

Maximum Duty Cycle: See graph.



External Sync

Amplitude: 5 to 20 volts peak.

Waveform: Pulse or sine wave.

Polarity: Either positive or negative.

Input Impedance: Approximately 2000 ohms, dc coupled.

Rate: Subject to internal recovery time considerations; see graph.

Trigger Out

Sync Out: 0.1 to 100 μsec in advance of the spiked or rf pulse, as set by DELAY control (internal pulse mode); simultaneous with rf pulse (internal) square wave and external pulse mode).

Delayed Sync Out: Simultaneous with output pulse (internal pulse mode only).

Amplitude: Approximately — 2 volts.

Source Impedance: Approximately 330 ohms.

External Modulation

Pulse

Input: 5 to 20 volts, either positive or negative.

Repetition Frequency: Maximum average prf, 500 kHz.

Input Impedance: Approximately 2000 ohms, dc coupled.

Minimum RF Pulse Width: 0.1 μsec.

Maximum RF Pulse Width: $\frac{1}{\text{prf}}$ — 0.4 μsec.

Continuous Amplitude Modulation (with 8730 Series)

Frequency Response: DC to approximately 10 MHz (3 dB).

Sensitivity: Approximately 10 dB/volt with 8730A series, approximately 20 dB/volt with 8730B series.

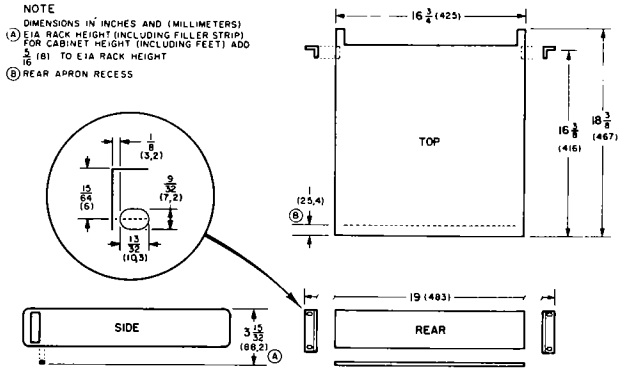
Input Impedance: Approximately 1000 ohms.

Level Control: AM input is dc coupled, permitting control by bias of AM input; rear panel control for use with ac-coupled modulation.

General

Power Requirements: 115/230 volts ±10%, 48—66 Hz, 115V ±10% 360—440 Hz 20 VA max.

Dimensions:



Weight: Net, 16½ lbs. *(7.4 kg)*. Shipping, 20 lbs. *(9 kg)*.

Options:

002. Model 8731B PIN Modulator
004. Model 8732B PIN Modulator
006. Model 8733B PIN Modulator
008. Model 8734B PIN Modulator
009. Sync output and external modulation input connectors on rear panel in parallel with front-panel connectors; pulse output (or rf input and output) connectors on rear panel only.