



Figure 1-1. Model 8616A Signal Generator
(The Model 8614A is exactly the same in physical construction)

Table 1-1. Specifications

<p>FREQUENCY RANGE: direct reading within 2 Mc Model 8614A: 800 to 2400 Mc. Model 8616A: 1800 to 4500 Mc.</p> <p>VERNIER: ΔF control has range of approximately 2 Mc for fine tuning.</p> <p>FREQUENCY CALIBRATION ACCURACY: Model 8614A: ± 5 Mc Model 8616A: ± 10 Mc</p> <p>FREQUENCY STABILITY: Approx 0.005%/°C change in ambient temperature, less than 2500 cps peak residual FM, negligible incidental FM in pulse and AM operation for attenuator settings below -10 db. 0.003% change for line voltage variation of $\pm 10\%$.</p> <p>RF OUTPUT POWER: +10 dbm (10mw) for 8614A; +3 dbm (2mw) for 8616A into a 50-ohm load. Output attenuation dial directly calibrated in dbm from 0 to -127dbm. A second uncalibrated output (approximately 0.5 mw) is provided on the front panel.</p> <p>RF OUTPUT POWER ACCURACY (with respect to attenuation dial): Model 8614A: ± 0.75 db + attenuator accuracy (-10 to -127 dbm); +0.00, -3.0 db (0 to -10 dbm) Model 8616A: ± 1.0 db + attenuator accuracy (0 to -127 dbm)</p> <p>ATTENUATOR ACCURACY: for attenuation dial settings of -10 to -127 dbm: Model 8614A: ± 0.06 db/10 db Model 8616A: ± 0.07 db/10 db</p> <p>LEVELED OUTPUT: over entire frequency range at any attenuation setting below 0 db: Model 8614A: ± 0.5 db Model 8616A: ± 0.75 db</p> <p>INTERNAL IMPEDANCE: 50 ohms; SWR less than 2.0</p> <p>MODULATION: On-off ratio at least 20 db for square wave, pulse</p> <p>INTERNAL SQUARE WAVE: 950 to 1050 cps. Other frequencies available on special order.</p>	<p>EXTERNAL PULSE: 50 cps to 50 kc; 2μsec rise time, +20 to +100 volt peak input</p> <p>EXTERNAL AM: DC to 1 Mc</p> <p>EXTERNAL FM: a. Front panel connector capacity-coupled to repeller of klystron. b. Four terminal rear panel connector (Cinch-Jones type S304AB) is DC-coupled to repeller of klystron.</p> <p>Mode width between 3-db points varies as follows: Model 8614A: from minimum of about 4 Mc at 800 Mc to a maximum of about 15 Mc at 2000 Mc; klystron sensitivity is about 100 kc/volt between 800 to 1600 Mc (1-3/4 mode), and 200 kc/volt between 1600 to 2400 Mc (2-3/4 mode). Model 8616A: from minimum of about 4 Mc to 5.5 Mc between 1800 and 3000 Mc to a maximum of about 8.5 Mc between 3000 and 4500 Mc; klystron sensitivities are about 100, 50, 200, and 100 kc/volt, respectively.</p> <p>POWER SOURCE: 115 or 230 volts $\pm 10\%$, 50 to 60 cps, approximately 125 watts</p> <p>DIMENSIONS:</p> <p>NOTES: DIMENSIONS IN INCHES AND (MILLIMETERS) ① EIA RACK HEIGHT (INCLUDING FILLER STRIP) FOR CABINET HEIGHT (INCLUDING FEET) ADD $\frac{1}{8}$ (3.18) TO EIA RACK HEIGHT ② REAR APRON RECESS</p>
	<p>WEIGHT: Net 48 lb (22 kg); shipping approximately 52 lb 11 oz (24 kg)</p>