

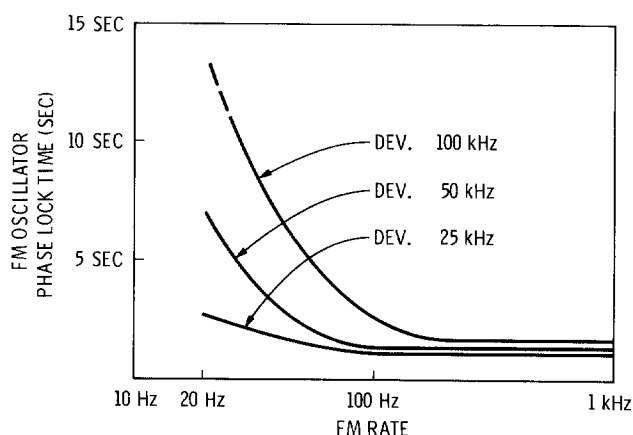
Table 1-1. Specifications

## SPECIFICATIONS

**Functions:** Internal and external AM or FM. Both modes are fully programmable.

**Meter:** 0–100% AM. FM peak deviation 0–10, and 100 kHz for center frequencies < 1300 MHz; 0–20, and 200 kHz for center frequencies  $\geq$  1300 MHz.

**FM Unlocked Indicator:** In FM mode, the lamp lights when the 20 MHz VCO is not phase-locked to the 20 MHz reference signal or if the range of the phase detector is exceeded at low modulation frequencies and high deviations. (See graph for typical phase-lock times.



**Typical FM Oscillator Phase Lock Time for Center frequencies < 1300 MHz (divide DEV by 2 for center frequencies  $\geq$  1300 MHz)**

## Internal Modulation

**Internal Rates:** 400 Hz and 1 kHz  $\pm$  5%.

**AM:** Continuously adjustable from 0 to 100% or maximum specified for RF Section installed.

**FM:**

**Deviation:** Adjustable from 0 to 100 kHz peak (200 kHz at center frequencies  $\geq$  1300 MHz) or maximum specified for RF Section installed. Not to exceed 1/10 of carrier frequency.

**Distortion:** Maintains minimum AM/FM distortion specified for RF Section used.

**Modulating Signal Output:** Selected internal modulation signal provided at front panel BNC connector at level of 200 mVrms minimum into 10 kilohm resistive load.

## External Modulation

**Input Level Required:**

**AC Levelled Mode:** External modulating signal must be between 1 and 2 Vrms to provide proper leveling amplifier performance.

**AC (Unlevelled) Mode and DC Mode:** External modulating signal must be approximately 1.8 Vrms (2.0 Vrms maximum) to maintain full vernier range and calibrated remote programming of modulation level.

**Input Impedance:** 600 ohms.

**AM:**

**Rate:** DC to maximum specified for RF Section. 20 Hz minimum in AC mode.

**Depth:** 0 to maximum specified for RF Section.

**Distortion:** External modulating signal distortion must be less than 0.3% to meet RF Section specifications.

**Indicated AM Accuracy (at 400 and 1000 Hz rates):**  $\pm$  5% of full scale ( $\pm$  10% of full scale at center frequencies  $\geq$  1300 MHz).

**FM:**

**Rate:** 20 Hz to 100 kHz (AC mode only). Not to exceed 1/10 of carrier frequency. Maximum usable modulation rate depends on specifications for RF Section installed.

**Deviation:** 0 to 100 kHz peak for center frequencies below 1300 MHz; 0 to 200 kHz for center frequencies  $\geq$  1300 MHz. Maximum usable deviation depends on specifications for RF Section installed. Cannot exceed 1/10 of carrier frequency.

**Distortion:** External modulation signal distortion must be less than 0.3% to meet RF Section specifications.

**Indicated FM Accuracy:**  $\pm$  5% of full scale up to 20 kHz rates.

## Remote Programming

**Modulation Setting Resolution:** 1% depth for AM; 1/100 of range selected for FM.

**Modulation Setting Accuracy:**  $\pm$  5% of setting or 1/2% of full scale, whichever is greater.

## General

**Size:** Plug-in to fit all 8660 mainframes.

**Weight:** Net, 2.6 kg (6 lb).