

GENERAL RADIO COMPANY

1.3 TYPE 874-VRL. The Type 874-VRL Voltmeter Rectifier is identical to the Type 874-VR except that it employs locking Type 874-BL Coaxial Connectors on the r-f arms. These connectors are compatible with both locking and nonlocking Type 874 Connectors. When two locking connectors are mated with each other, a firm mechanical coupling is achieved. Also, the shielding is improved significantly over that of the standard connector and, in general, the leakage is reduced by at least 50 db. In terms of VSWR, a locking connector mated with a nonlocking connector is equivalent to two nonlocking connectors mated. The VSWR characteristics of the basic Type 874-BL Locking Connector are similar to those of the basic Type 874-B (nonlocking) Connector, and both are described in the General Radio catalog. The quick-disconnect feature of the standard Type 874 Coaxial Connectors is retained in the locking type if the coupling nut is not engaged; however, the shielding is less effective.

2 OPERATING CHARACTERISTICS

2.1 VSWR. At 2.0 Gc, the VSWR is about 1.2, and at lower frequencies it will decrease almost linearly with the frequency to about 1.07 at 1.0 Gc. Above 2.0 Gc, the VSWR will increase rapidly as the resonant frequency of the diode is approached.

2.2 FREQUENCY CORRECTION. Due to resonance in the diode, the indicated voltage for a constant applied r-f voltage increases with frequency. A correction curve giving the ratio of actual to indicated voltage as a function of frequency is shown in Figure 2.

2.3 VOLTAGE CORRECTION. It should be kept in mind that the diode characteristic changes from square law at low voltage levels to linear

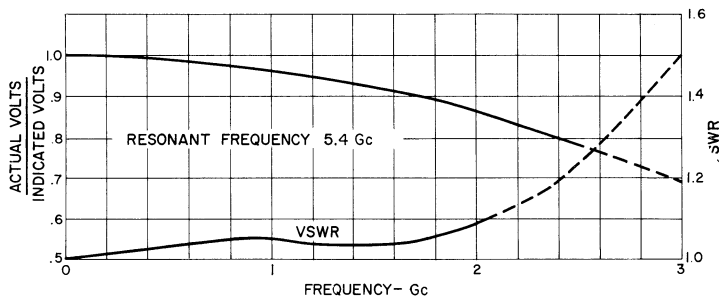


Figure 2. Typical VSWR and frequency correction for Type 874-VR/-VRL output.