Model 7050 Millimeter Wave 3 dB Quadrature Coupler

The 3 dB Quadrature Coupler is a four port device covering the frequency range of 18 to 40 GHz. The coupler design is a single section Hopfer coupler which has been optimized to perform in the millimeter frequency range. See Fig. 1. It offers excellent amplitude and phase balance as well as low loss and high isolation. The 3 dB Quadrature Coupler utilizes removable connectors for easy integration into coaxial millimeter wave systems.

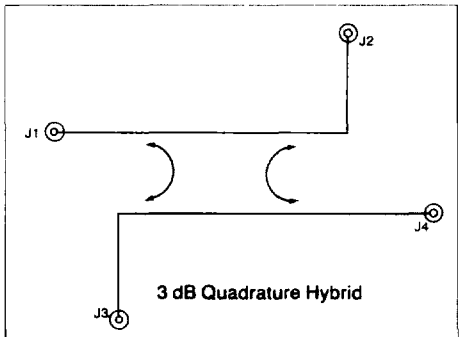
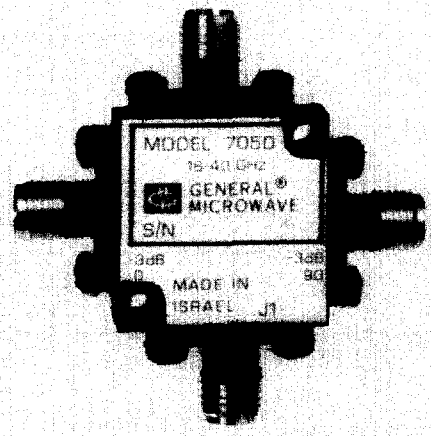


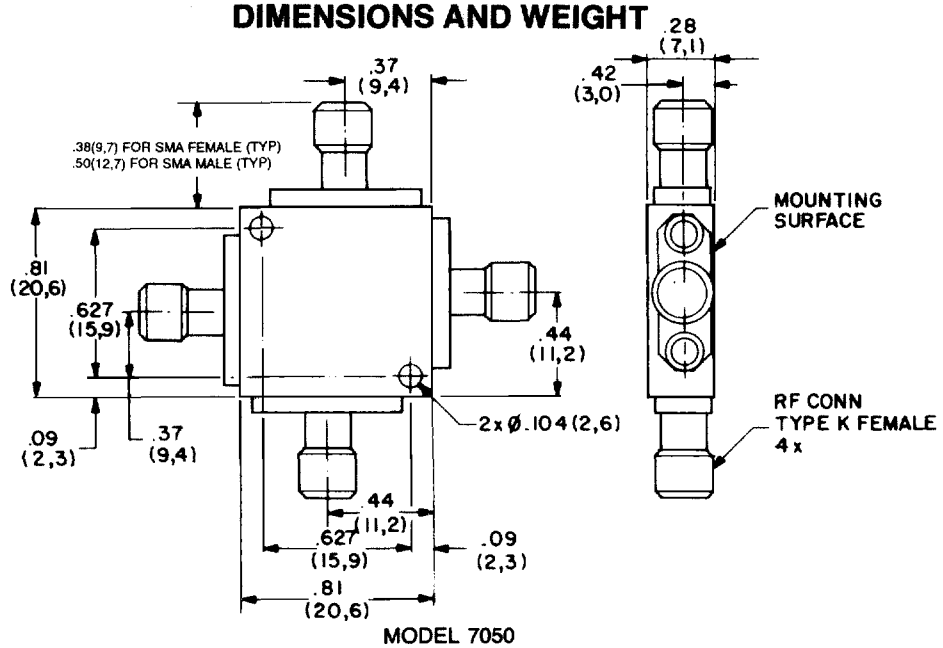
Fig. 1-Model 7050 schematic

- **Frequency range: 18-40 GHz**
- **Low insertion loss**
- **High isolation**
- **Removable connectors**



SPECIFICATIONS	
Frequency (GHz)	18-40
Min Isolation (dB)	14
Max Insertion Loss (dB)	1.5
Max VSWR	1.8
Amplitude Balance (dB)	±1.7
Phase Balance (deg)	±10
Power Handling, operating and survival, cw or peak	2W

DIMENSIONS AND WEIGHT



MODEL 7050
Wt: 1 oz (28gm) approx.

Dimensional Tolerances, unless otherwise indicated: .xx ±.02; .xxx ±.005