KRYTAR DIRECTIONAL COUPLER
2 – 50 GHz

As coaxial systems reach higher frequencies, it becomes critical to sample and level signals over broad instantaneous bandwidths.

Krytar Model 102050010 is a 10-dB stripline directional coupler that uses a patented, nonuniform tapered line. The coupler is designed with offset coupled striplines used in a three layer construction, with coupled lines etched on opposite sides of a thin center board that is in turn sandwiched between two dielectric boards of equal thickness.

The design was accomplished with Krytar’s proprietary CAD program and features State-of-the-art flat Microwave performance. The coupler’s frequency sensitivity or coupling flatness is ±0.6 dB, 2-26.5 GHz and ±0.8 dB, 2-50 GHz. Note that coupling is measured with respect to the output (See Figure 1 for a plot of coupling characteristics of the model 102050010). The frequency response is measured with a Vector Analyzer. Connectors are 2.4 mm Female.

![Coupling characteristics of Krytar Model 102050010](image)

(Figure 1) Coupling characteristics of Krytar Model 102050010

Model 102050010 offers low insertion loss of 2.0 dB Maximum even at 50 GHz. Directivity is 13 dB, 2-26.5 GHz and 10 dB, 26.5-50 GHz. VSWR is 1.5:1, 2-26.5 GHz and 1.8:1, 26.5-50 GHz. Krytar offers the same coupler design with a 13 dB coupling value which delivers an even lower insertion loss of 1.8 dB Maximum.

Krytar is currently engineering a 1.0-65 GHz, 10 dB directional coupler. Please call for an update on status or check Krytar Website [www.krytar.com](http://www.krytar.com) from time to time to check progress. Applications include Power monitoring in broadband EW systems, test setups and signal leveling in test systems and signal generators.

Krytar offers a standard line of Broadband Directional Couplers with various frequency bandwidths from 0.5 to 50 GHz.

Data sheets with complete electrical specifications and dimensions are available at Krytar Website [www.krytar.com](http://www.krytar.com).