

BI-DIRECTIONAL COUPLER

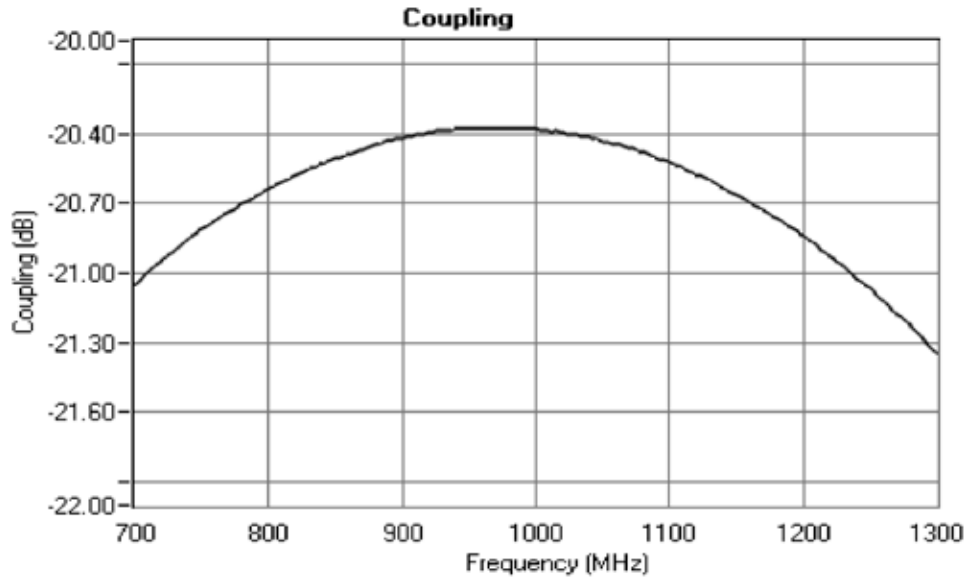
SYNSTRI[®] MODEL: SCS-8012D

ULTRA LOW LOSS

800 - 1200 MHz

FEATURES:

- ▶ SYNSTRI[®] Technology
- ▶ Small Size, Surface Mount
- ▶ Optimum Performance



SPECIFICATIONS (Rev. B 08/21/07)

| | | | |
|------------------------------------|--------------------|----------------|-----------|
| Frequency | Extended Band | Optimized Band | |
| | 800 - 1200 MHz | 815 - 960 MHz | |
| Coupling | 20 dB ±1 dB (Nom.) | | |
| Coupling Flatness | Freq. (MHz) | dB (Max.) | |
| | 815-960 | ±0.4 | |
| | 800-1200 | ±0.6 | |
| Mainline Loss | 0.25 dB (Max.) | | |
| Directivity | Freq. (MHz) | dB (Typ.) | dB (Min.) |
| | 815-960 | 22 | 20 |
| | 800-1200 | 22 | 18 |
| Frequency Sensitivity | 0.6 dB (Max.) | | |
| Power Rating | 100 Watts (Ave/CW) | | |
| Impedance | 50 Ohms (Nom.) | | |
| VSWR | dB (Typ.) | dB (Max.) | |
| | 1.2:1 | 1.25:1 | |
| Operating Temperature Range | -55 to +85 °C | | |

Package # 226-1

IMPORTANT NOTES:

- 1) THE WIDTH OF THE LIVE PADS SHOULD CORRESPOND TO 50 OHM FOR THE DI-ELECTRIC CONSTANT AND THICKNESS OF THE CHOSEN PC BOARD MATERIAL. THE GIVEN VALUE(*) CORRESPONDS TO $\epsilon_r=3.38$ & THICKNESS=0.032" (ROGERS RO 4003).
- 2) THE COUPLER SHOULD BE SOLDER ATTACHED TO THE RECOMMENDED PC BOARD LAYOUT FOR ACHIEVING SPECIFIED PERFORMANCE.

| PORT CONFIGURATION | | | |
|--------------------|--------|----------|---------|
| Input | Output | Isolated | Coupled |
| 1 | 2 | 3 | 4 |

Note: For directional coupler operation, connect 50 Ohms load from isolated port to ground.

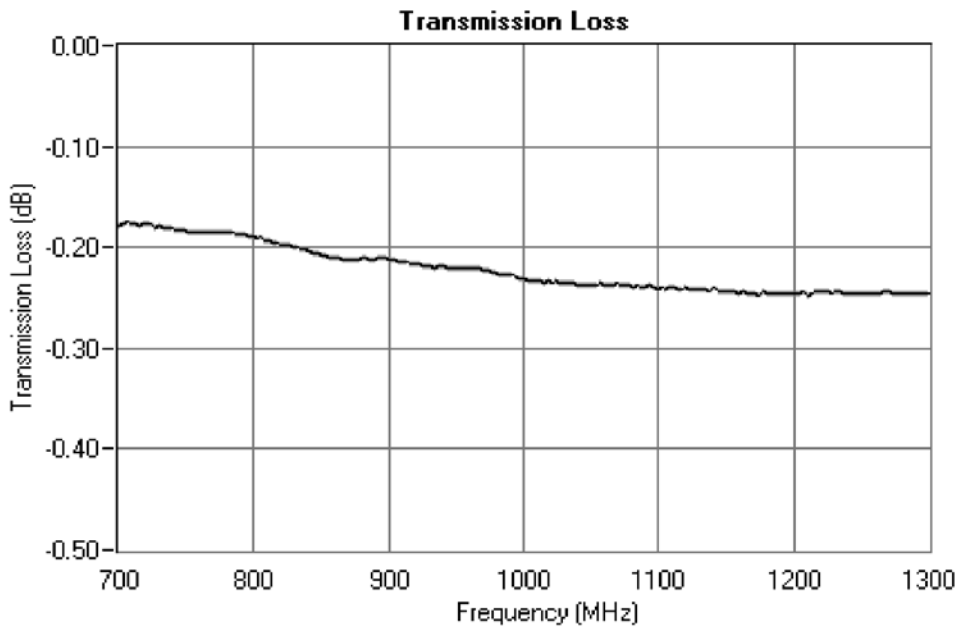
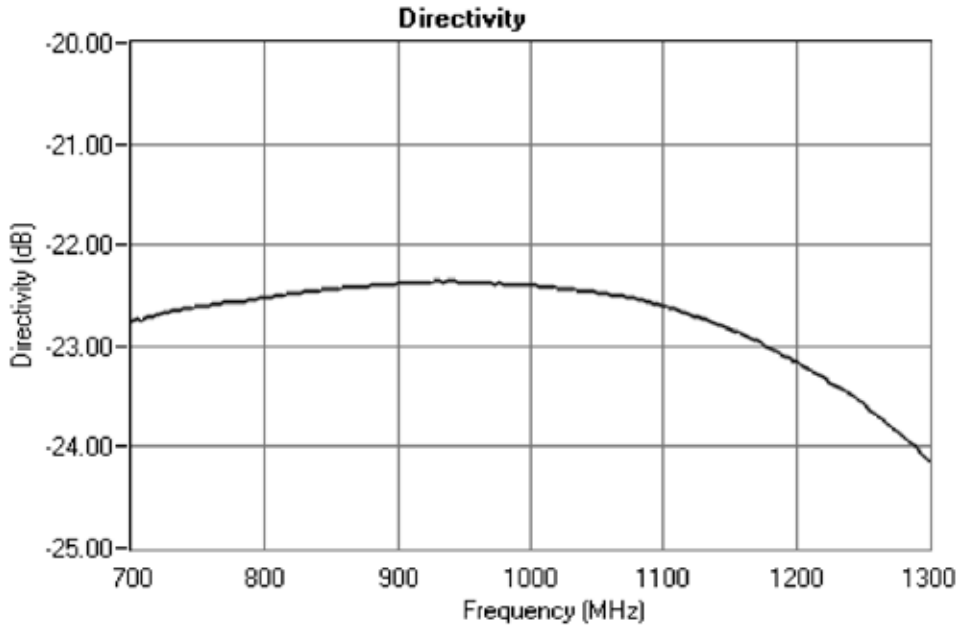
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PERFORMANCE PLOTS

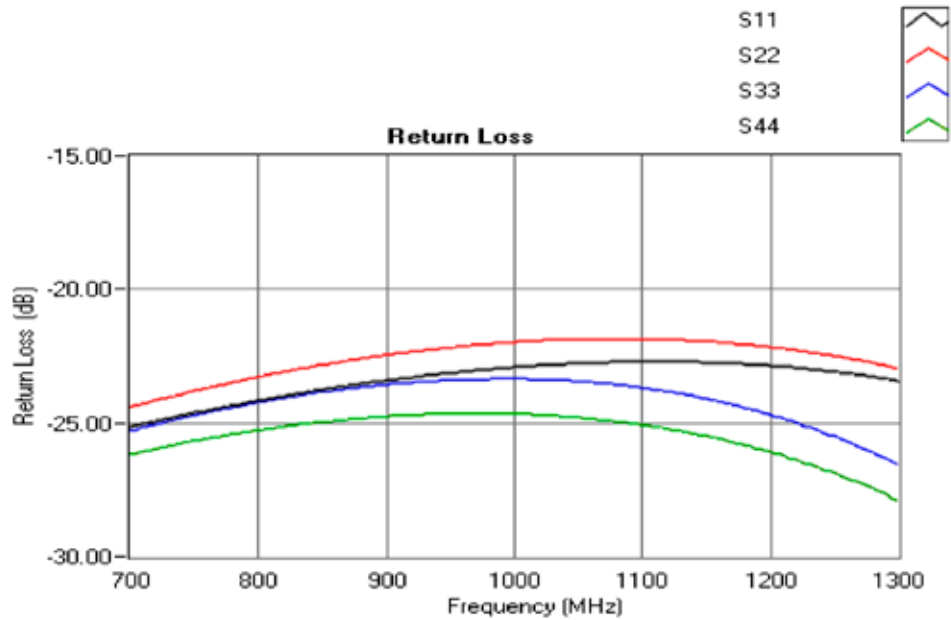


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PERFORMANCE PLOTS