

# BI-DIRECTIONAL COUPLER

## SURFACE MOUNT MODEL: SCCHP-990

WIDE BANDWIDTH

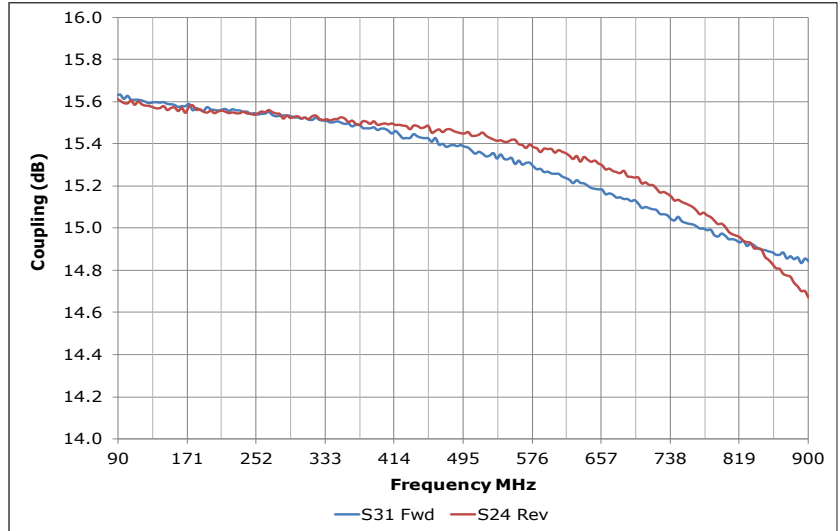
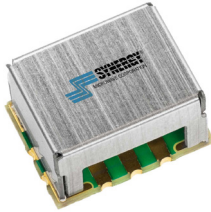
90 - 900 MHz

**FEATURES:**

- ▶ High Power Rating
- ▶ Low Insertion Loss
- ▶ Good Coupling Flatness
- ▶ High Directivity

**APPLICATION:**

- ▶ Antenna Signal Monitoring



**SPECIFICATIONS (Rev. C 05/21/24)**

|                               |                               |              |      |
|-------------------------------|-------------------------------|--------------|------|
| Frequency                     | 90 - 900 MHz                  |              |      |
| Coupling                      | 15.2 ±0.5 dB (Nom.)           |              |      |
| Coupling Flatness             | ±0.6 dB (Max.)                |              |      |
| Mainline Loss <sup>1</sup>    | Freq. (MHz)                   | Typ.         | Max. |
|                               | 90 - 350                      | 0.21         | 0.32 |
|                               | 350 - 700                     | 0.35         | 0.46 |
|                               | 700 - 900                     | 0.52         | 0.64 |
| Directivity (dB) <sup>2</sup> | Freq. (MHz)                   | Typ.         | Min. |
|                               | 90 - 350                      | 30           | 27   |
|                               | 350 - 700                     | 23           | 20   |
|                               | 700 - 900                     | 20           | 17   |
| Input Power Rating            | Freq. (MHz)                   | Watts (Avg.) |      |
|                               | 90 - 550                      | 45           |      |
|                               | 550 - 750                     | 40           |      |
|                               | 550 - 900                     | 30           |      |
| Impedance                     | 50 Ohms (Nom.)                |              |      |
| VSWR                          | 1.30:1 (Typ.) / 1.50:1 (Max.) |              |      |
| Operating Temperature Range   | -40 to +85 °C                 |              |      |
| Storage Temperature Range     | -55 to +100 °C                |              |      |

<sup>1</sup> Including Coupling Loss.  
<sup>2</sup> Directivity is the isolation value minus the coupling value.

**Package #** 129LF-3

**PACKAGE MOUNTING:** SEE APPLICATION NOTE AN7301.  
**TOLERANCES ON THREE DECIMAL PLACES = ± 0.015**      **DIMENSIONS ARE IN INCHES.**

| PORT CONFIGURATION |        |              |              |            |
|--------------------|--------|--------------|--------------|------------|
| Input              | Output | FWD. Coupled | REV. Coupled | Gnd.       |
| 1                  | 6      | 3            | 4            | All Others |

**Functional Diagram**

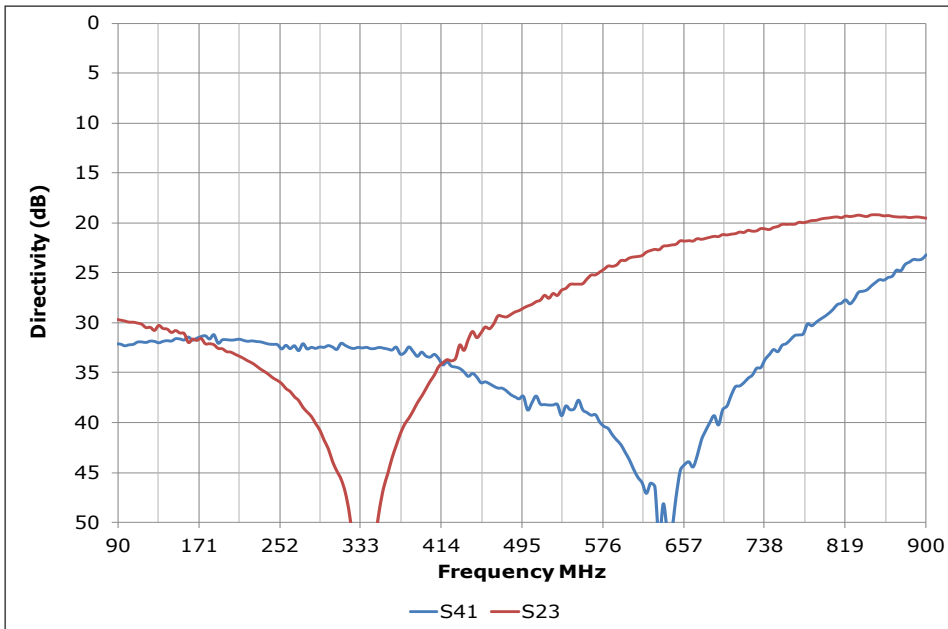
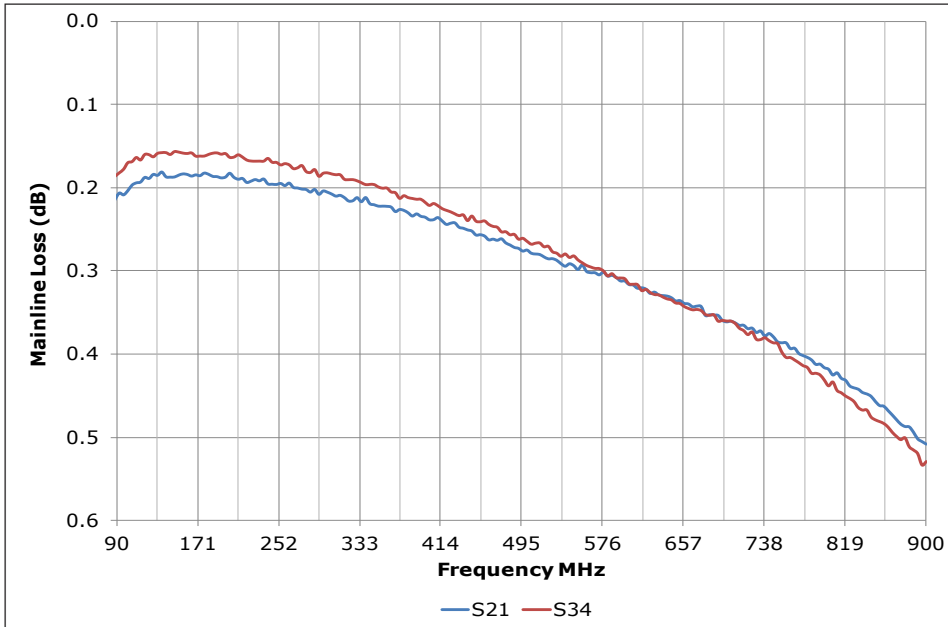
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PERFORMANCE PLOTS

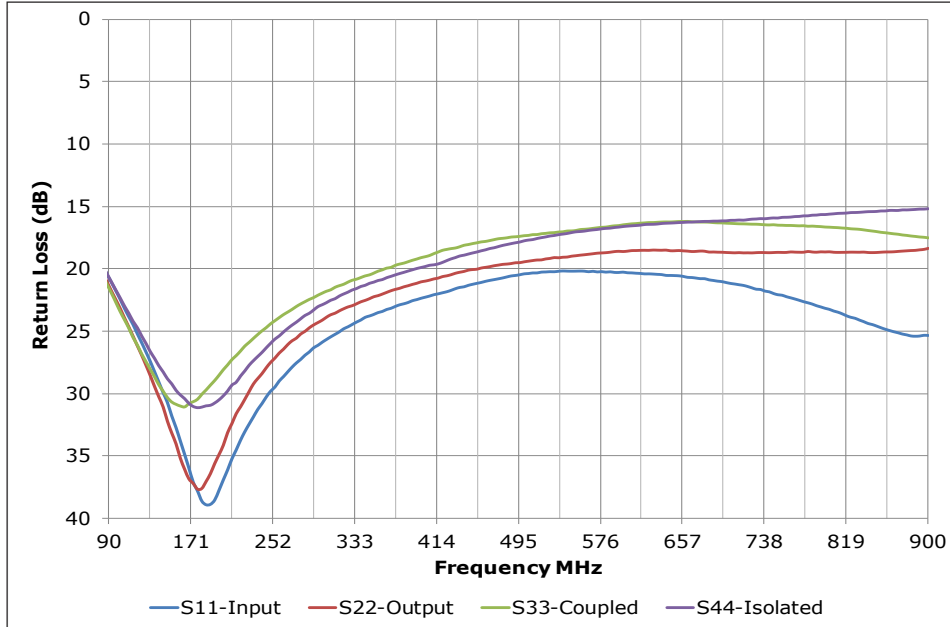


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PERFORMANCE PLOTS