

Directional Coupler 0.81–0.96 GHz



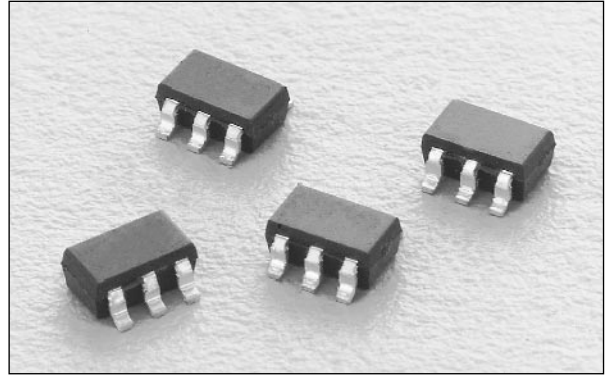
DC09-73

Features

- Low Cost
- Low Profile
- Available in Small SOT-6 Lead Package
- Tape & Reel

Description

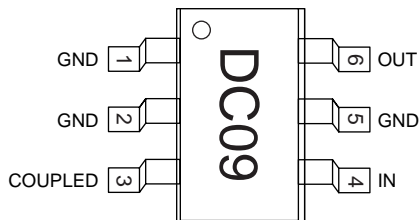
The DC09-73 is a monolithic directional coupler tailored to the 0.81–0.96 GHz band. It offers low loss, good isolation, good input/output matching and exceptional coupling repeatability. It is available in the SOT-6 lead surface mount package.



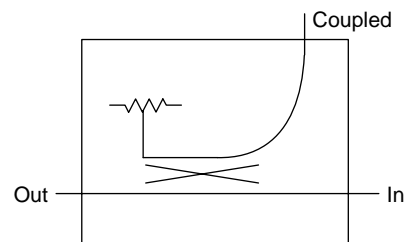
Electrical Specifications at 25°C

| Parameter | Min. | Typ. | Max. | Unit |
|-------------------|------|-------|-------|------|
| Frequency | 0.81 | | 0.96 | GHz |
| Insertion Loss | | 0.2 | 0.3 | dB |
| Isolation | 27 | 30 | | dB |
| Input VSWR | | 1.1:1 | 1.3:1 | |
| Output VSWR | | 1.1:1 | 1.3:1 | |
| Coupling | 20.8 | 19.8 | 18.8 | dB |
| Coupled Port VSWR | | 1.1:1 | 1.3:1 | |

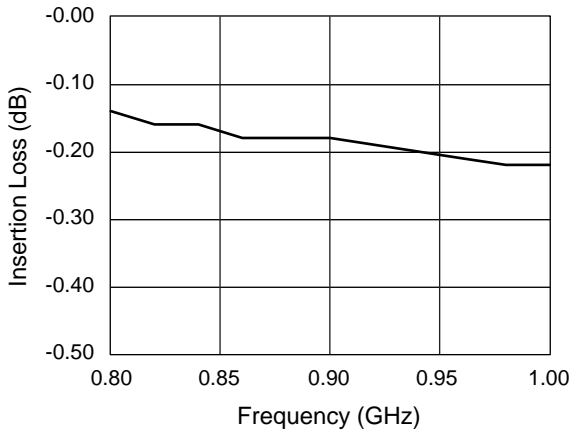
Pin Out



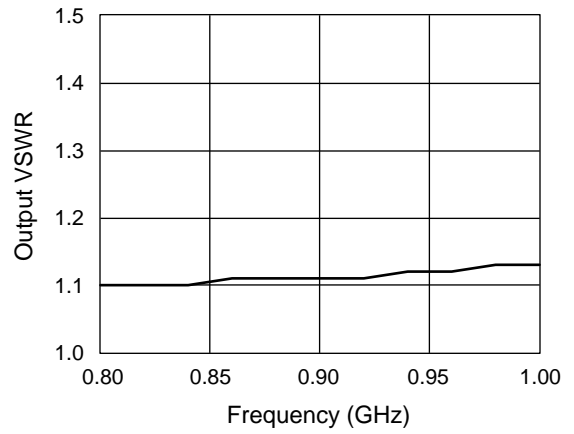
Block Diagram



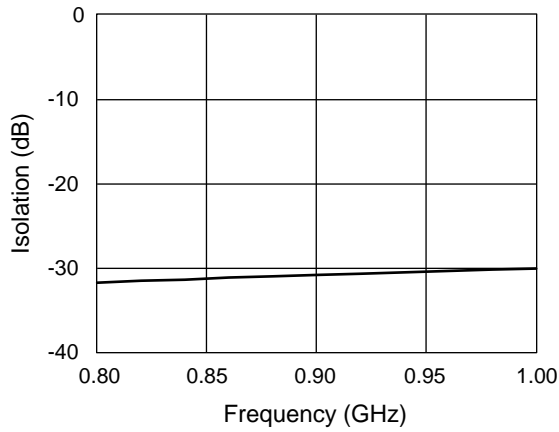
Typical Performance Data



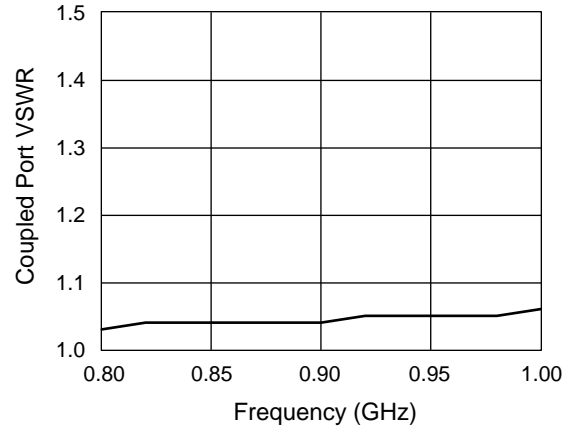
Insertion Loss vs. Frequency



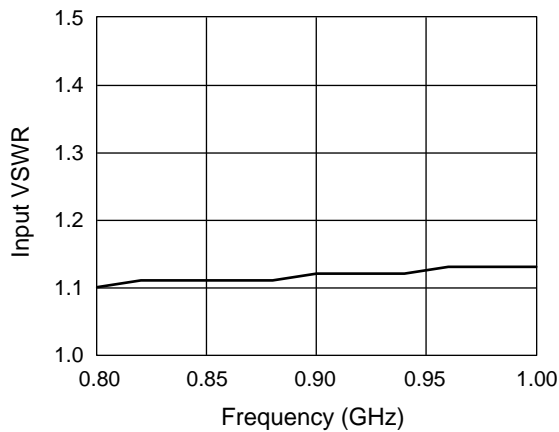
Output VSWR vs. Frequency



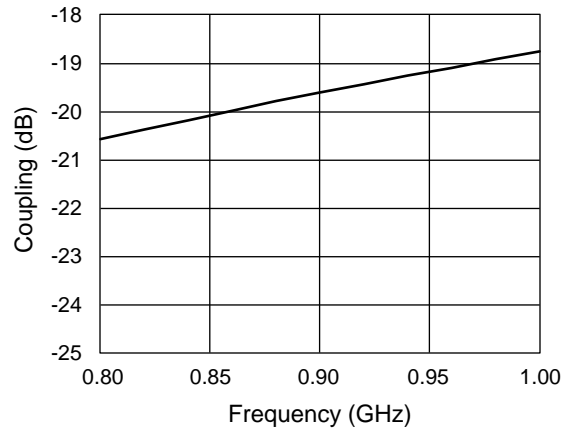
Isolation vs. Frequency



Coupled Port VSWR vs. Frequency



Input VSWR vs. Frequency



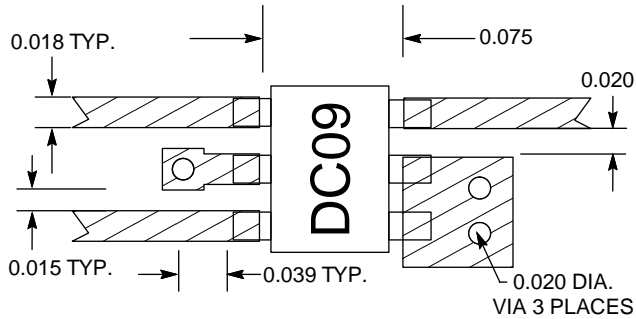
Coupling vs. Frequency

Absolute Maximum Ratings

| Characteristic | Value |
|--------------------------|-----------------|
| Input Power ¹ | 4.0 W CW |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -65°C to +150°C |

1. When operating with a 2.0:1 maximum VSWR on all ports.

Recommended Board Layout



Material is 10 mil FR4

SOT-6

