



Coming Attractions

Low Cost SMT 17dB Bi-Directional Coupler 824 - 960 MHz

CH20-0032-17G

V2.00

Features

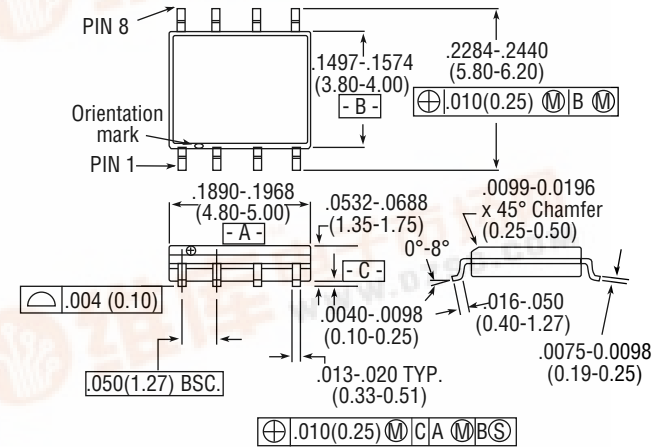
- Device is Bi-Directional
- Small Size and Low Profile
- Industry Standard SOIC-8 SMT Plastic Package
- Superior Repeatability
- Typical Insertion Loss 0.3 dB
- Typical Directivity 15 dB
- 2 Watt Power Handling

Description

M/A-COM's CH20-0032-17G is an IC based monolithic bi-directional coupler in a low cost SOIC-8 plastic package. This 17 dB coupler is ideally suited for applications where power monitoring, small size, low insertion loss, superior repeatability and low cost are required. Typical applications include base station switching networks, power monitoring in handhelds and other communication applications where size and PCB real estate is a premium. Available in tape and reel.

The CH20-0032-17G is fabricated using a passive-integrated circuit process. The process features full chip passivation for increased performance and reliability.

SO-8



8- Lead SOP outline dimensions

Narrow body .150

(All dimensions per JEDEC No. MS-012-AA, Issue C)

Dimensions in () are in mm.

Unless Otherwise Noted: .xxx = ± 0.010 (.xx = ± 0.25)
.xx = ± 0.02 (.x = ± 0.5)

Ordering Information

| Part Number | Description |
|-------------------|-----------------------------|
| CH20-0032-17G | SOIC-8 Lead Plastic Package |
| CH20-0032-17G-TR | Forward Tape & Reel* |
| CH20-0032-17G-RTR | Reverse Tape & Reel* |

* If specific reel size is required, consult factory for part number assignment.

Typical Electrical Specifications¹ @ T_A = +25°C

| Parameter | Unit | Min. | Typ. | Max. |
|-------------------|------|------|-------|-------|
| Insertion Loss | dB | - | 0.3 | 0.5 |
| VSWR | - | - | 1.3:1 | 1.6:1 |
| Coupling | dB | - | 17 ±2 | - |
| Coupling Flatness | dB | - | 1.2 | 1.5 |
| Directivity | dB | 10 | 15 | - |

1. All specifications apply with a 50-ohm source and load impedance.

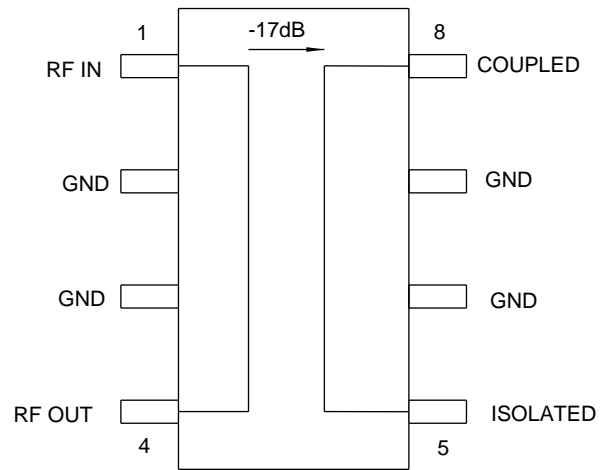


Absolute Maximum Ratings¹

| Parameter | Absolute Maximum |
|-----------------------|------------------|
| Input Power | 2W CW |
| Operating Temperature | -40°C to +85°C |
| Storage Temperature | -65°C to +150°C |

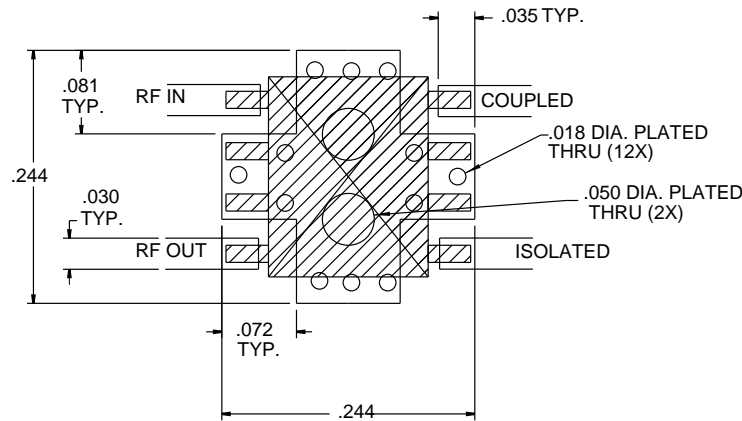
1. Exceeding these limits may cause permanent damage.

Functional Diagram



Note: Pins 2, 3, 6, and 7 must be RF and DC grounded.

Recommended PCB Configuration



(Dimensions in Inches)
Circuit Material: FR-4, 0.16 Thick

Typical Performance @ +25°C

