

High Power Dual Directional Couplers

1850 – 1990 MHz, 30 dB

CH20 PCS Series

V2.00

Features

- Ultra Low Loss
- Integral Lightning Protection
- Accurate Coupling
- High Directivity
- Low VSWR
- High Power Handling
- Low Intermodulation Products
- Complete PCS Transmit/Receive Band Coverage

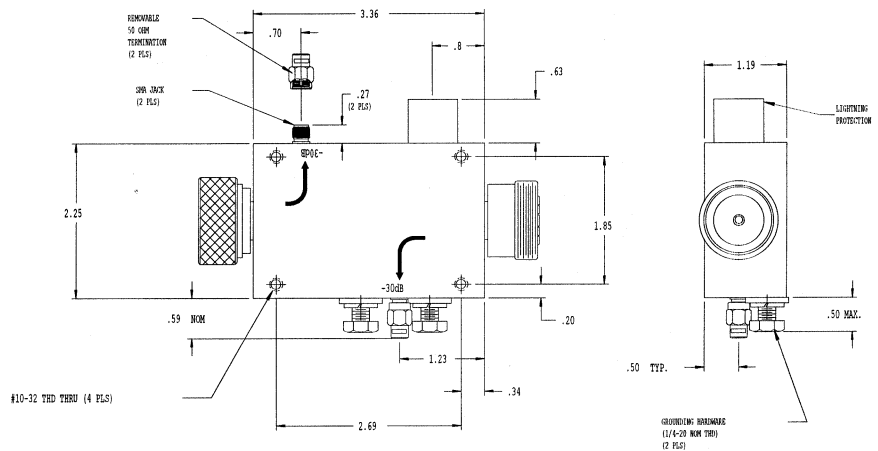


Figure 1

Description

M/A-COM's CH20 Series of Low Loss, High Power Dual Directional Couplers is designed to provide highly accurate power samplings of both transmitted and reflected power. They operate over the full PCS transmit and receive bandwidth of 1850-1990 MHz and are ideally suited for installation between the antenna cable and base station within a base station enclosure. The CH20-0039-30's integral lightning protection circuit offers affordable protection against the harmful current accompanying a tower or antenna cable lightning

strike. The protection circuit is designed to be permanent, withstanding the largest strikes without need for element replacement. Stainless steel grounding hardware accommodates NEMA spaced ground straps. The appropriate plating and the absence of any ferrous material in the circuitry assures low intermodulation products. Air-line construction yields the lowest possible insertion loss and VSWR, allowing dual-directional monitoring without sacrificing base station performance.

Ordering Information and Typical Specifications 1850-1990 MHz, 30 dB Coupling

| Part Number | Figure | Coupling Flatness (dB) Max | Directivity (dB) min | Input Power (Watts) Max | VSWR Mainline | VSWR Coupled Line | Insertion Loss | Operating Temp °C |
|---------------|--------|----------------------------|----------------------|-------------------------|---------------|-------------------|----------------|-------------------|
| CH20-0039-30 | 1* | .25 | 25 | 500 | 1.10:1 | 1.20:1 | .12 | -40 - +60 |
| CH20-0046-30N | 2 | .25 | 25 | 192 | 1.10:1 | 1.20:1 | .2 | 0 - +70 |
| CH20-0052-30 | 3 | .25 | 25 | 50 | 1.10:1 | 1.20:1 | .12 | 0 - +70 |

If continuous power monitoring is necessary, these devices can be supplied without the removable 50 Ohm terminations on the SMA sample ports.

*These devices can be provided without lightning protection or with type N connectors on the primary line.

Please consult our factory for more information.

Figure 2

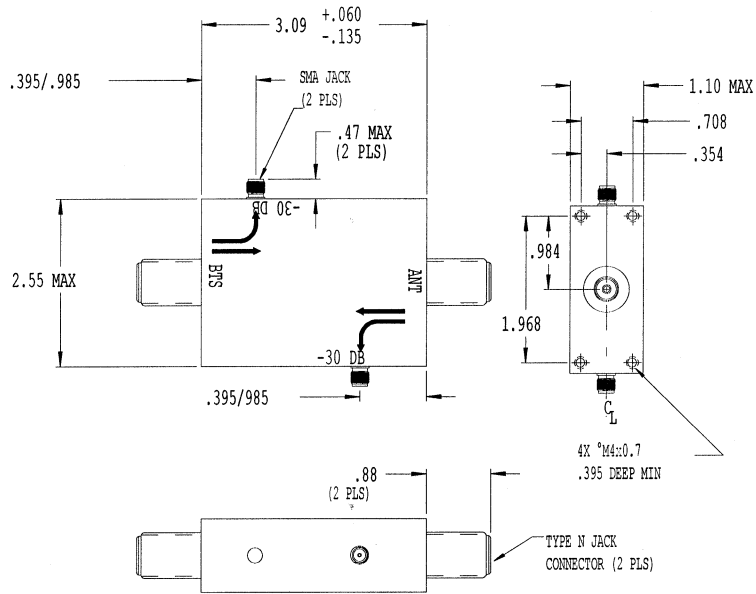


Figure 3

