

Air Dielectric Directional Couplers Low Loss, Octave Bandwidth

Rev. V2

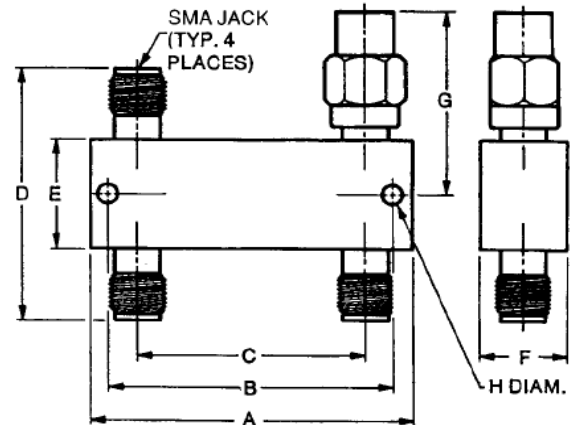
Features

- Air Dielectric for Low Loss
- Frequency Range: 1.0 to 18 GHz
- Octave Bandwidths
- Meets MIL-E-5400 Environments

Description

These directional couplers feature compact packaging and four-port construction. This combination permits flexibility in system designs. They are intended for test and measurement setups as well as for system use. Temperature range is -54° to $+110^{\circ}\text{C}$. These units incorporate three miniature, low VSWR SMA jack connectors. Isolated port is terminated with 1/2 watt, 50 ohm load.

Outline Drawing



NOTE: All dimensions are $\pm .020$, except mounting hole diameters ($\pm .005$) and mounting hole location ($\pm .010$).

Mechanical Specifications

| Case Style | A Inch (mm) | B Inch (mm) | C Inch (mm) | D Inch (mm) | E Inch (mm) | F Inch (mm) | G Inch (mm) | H Inch (mm) | Weight oz | Weight g |
|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------|--------------|-------------|
| 1 | 2.55 (64.8) | 2.39 (60.8) | 1.97 (50.1) | 1.16 (29.4) | 0.50 (12.7) | 0.38 (9.7) | 0.91 (23.2) | 0.093 (2.36) | 1.90 | 54 |
| 2 | 1.69 (42.7) | 1.52 (38.7) | 1.11 (28.2) | 1.16 (29.4) | 0.50 (12.7) | 0.38 (9.7) | 0.91 (23.2) | 0.093 (2.36) | 1.10 | 31 |
| 3 | 1.41 (35.6) | 1.24 (31.5) | 0.82 (20.8) | 1.16 (29.4) | 0.50 (12.7) | 0.38 (9.7) | 0.91 (23.2) | 0.093 (2.36) | 1.07 | 31 |
| 4 | 1.19 (30.0) | 1.02 (26.0) | 0.60 (15.2) | 1.16 (29.4) | 0.50 (12.7) | 0.38 (9.7) | 0.91 (23.2) | 0.093 (2.36) | 0.98 | 28 |
| 5 | 1.08 (27.4) | 0.92 (23.4) | 0.50 (12.7) | 1.28 (32.6) | 0.63 (15.9) | 0.38 (9.7) | 0.97 (24.6) | 0.093 (2.36) | 1.01 | 30 |

Specifications

| Part Number | Case Style | Freq. Range (GHz) | Coupling (Include. Freq. Sens.(dB) | Freq. Sens. (dB) | Insertion Loss Max (dB) | Direct. Min. (dB) | VSWR Max Prim Line | Power Avg. (W) | Power Pk. (kW) | M/A-COM MIL-C-15370/10* Commercial Equivalent Part No. |
|--|-------------|-------------------|------------------------------------|------------------------|-------------------------|-------------------|----------------------|----------------|----------------|--|
| 2023-6121-06 2023-6122-10 2023-6123-20 | 1 1 1 | 1.0-2.0 | 6 ± 1.0 10 ± 1.0 20 ± 1.0 | ±0.50 ±0.75 ±1.0 | 0.20 0.20 0.20 | 20 20 20 | 1.20 1.20 1.20 | 2 5 50 | 2 2 2 | 2023-4011-06 2023-4012-10 2023-4013-20 |
| 2023-6125-10 2023-6126-20 | 2 2 | 2.0-4.0 | 10 ± 1.0 20 ± 1.0 | ±0.75 ±1.0 | 0.20 0.20 | 20 20 | 1.20 1.20 | 5 50 | 2 2 | — — |
| 2023-6127-06 2023-6128-10 2023-6129-20 | 3 3 3 | 2.6-5.2 | 6 ± 1.0 10 ± 1.0 20 ± 1.0 | ±0.60 ±0.75 ±1.0 | 0.20 0.20 0.20 | 18 18 18 | 1.25 1.25 1.25 | 2 5 50 | 2 2 2 | — — — |
| 2023-6133-06 2023-6134-10 2023-6135-20 | 5 5 5 | 8.0-12.4 | 6 ± 1.0 10 ± 1.0 20 ± 1.0 | ±0.50 ±0.75 ±1.0 | 0.25 0.25 0.25 | 15 15 15 | 1.30 1.30 1.30 | 2 5 50 | 2 2 2 | — 2023-4016-10 2023-4017-20 |
| 2023-6136-06 2023-6137-10 2023-6138-20 | 5 5 5 | 12.4-18.0 | 6 ± 0.75 10 ± 0.75 20 ± 0.75 | ±0.60 ±0.75 ±1.0 | 0.25 0.25 0.25 | 12 12 12 | 1.35 1.35 1.35 | 2 5 50 | 2 2 2 | 2023-4085-06 — — |