

## D-band Dual Directional Waveguide Coupler

### WR-6.5/10 dB Coupling

**Model: TDC-110170-10-06**

TDC-110170-10-06 is a D-band, four-port waveguide dual directional coupler that delivers a 10 dB nominal coupling level and 40 dB typical isolation across the full waveguide band from 110 to 170 GHz. The interfaces of the coupler are WR-6.5 waveguides with UG-387/U-M anti-cocking flanges.

#### Features:

- Operating Frequency 110 to 170 GHz
- Full Band Operation
- Low Insertion Loss
- Moderate Directivity

#### Applications:

- Test Labs
- Instrumentations
- Sub-assemblies

### 电气特性 Electrical Characteristics:

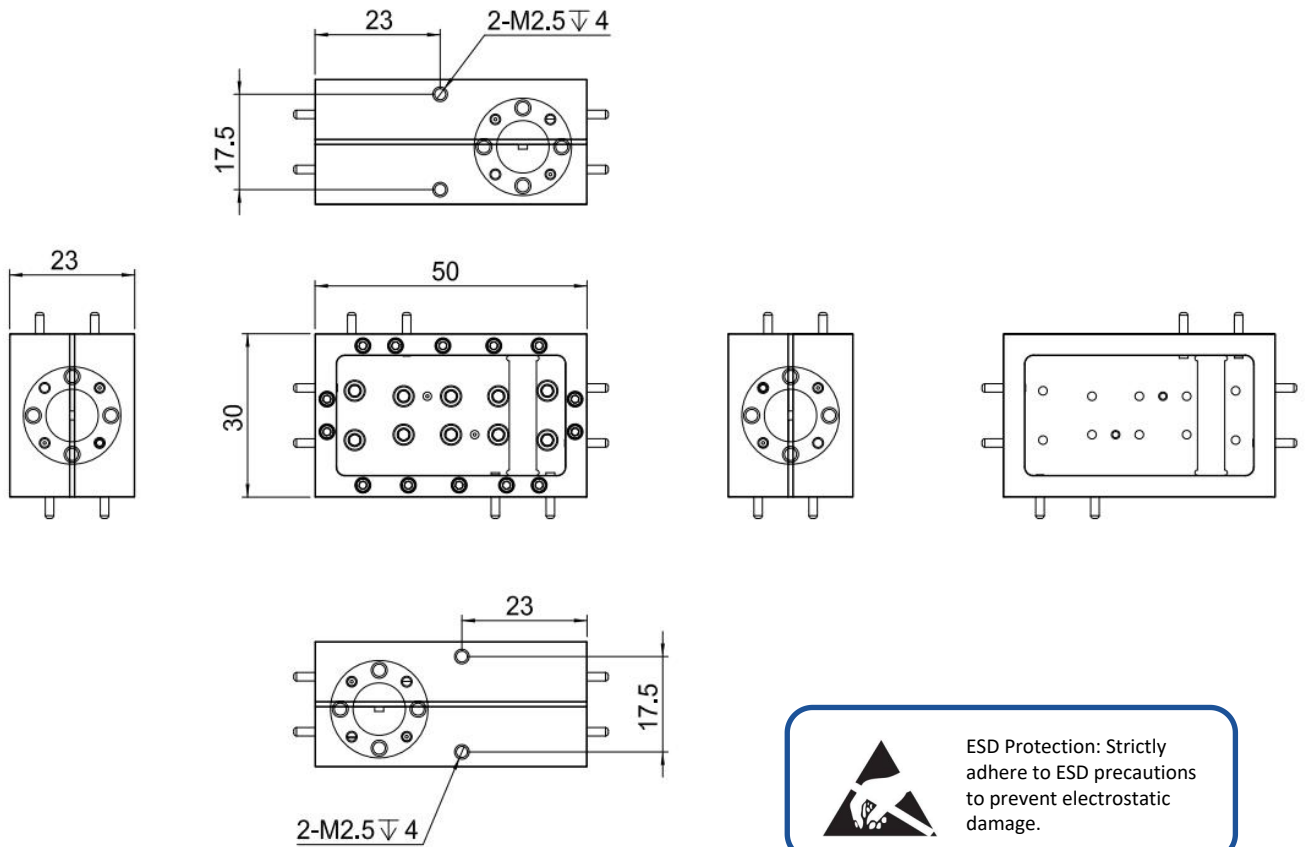

| 参数 Parameter             | Min | Typ | Max | 单位 Units |
|--------------------------|-----|-----|-----|----------|
| 工作频率 Frequency Range     | 110 |     | 170 | GHz      |
| 插入损耗 Insertion Loss      |     | 2.5 |     | dB       |
| 耦合度 Coupling             |     | 10  |     | dB       |
| 耦合精度 Coupling Accuracy   |     | ±2  |     | dB       |
| 隔离度 Isolation            |     | 40  |     | dB       |
| 方向性 Directivity          |     | 30  |     | dB       |
| 主线驻波 Main Line VSWR      |     | 1.2 |     | :1       |
| 耦合口驻波 Coupling Port VSWR |     | 1.2 |     | :1       |

### 环境和机械特性 Environmental And Physical Characteristics:

| 类型 Description                  | 参数 Parameter   | 单位 Units |
|---------------------------------|----------------|----------|
| 操作温度 Operating Temperature      | -40 To +85     | °C       |
| 存储温度 Storage Temperature        | -40 to +85     | °C       |
| 输入/输出接口 Input/Output Connectors | WR-6.5/U-387/U |          |
| 隔离/耦合接口 Isolation/Coupling Port | WR-6.5/U-387/U |          |
| 尺寸 Size                         | 50*30*23       | mm       |

**外形图 Outline Drawing:**

Unit:mm; Tolerance:±0.1mm

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

**订货信息 Ordering Information:**

| 标准型号 Base Number | 描述 Description   | 版本号 Revision |
|------------------|--|--------------|
| TDC-110170-10-06 | D-band Dual Directional Waveguide Coupler, 110-170GHz, Insertion Loss: 2.5dB Typ, Coupling: 10dB Typ, WR-6.5 | Rev.1.0      |