

## Dual Balance Mixer

RF:6-26 GHz/LO:6-26 GHz/IF:DC-12 GHz

Model: TLBM-0626-S

TLBM-0626-S is a dual balance mixer. The mixer covers the LO and RF frequency from 6 to 26 GHz with an extremely broad IF output from DC to 12 GHz. The mixer offers a conversion loss of 10 dB typical and LO input power of 15 dBm typical.

### Features:

- RF/LO coverage : 6-26GHz
- IF operation : DC-12GHz
- Conversion loss: 10dB Typ
- High LO to RF isolation
- Dual Balanced Mixer

### Applications:

- Defense & federal communications
- Instrumentations

### 电气特性 Electrical Characteristics:

| 参数 Parameter                 | Min | Typ | Max | 单位 Units |
|------------------------------|-----|-----|-----|----------|
| RF频率 RF Frequency            | 6   |     | 26  | GHz      |
| LO频率 LO Frequency            | 6   |     | 26  | GHz      |
| LO驱动功率 LO-Input power        | 13  | 15  | 21  | dBm      |
| IF频率 IF Frequency            | DC  |     | 12  | GHz      |
| IF输入功率 IF Input Power        |     | -10 |     | dBm      |
| 变频损耗 Conversion Loss         |     | 10  |     | dB       |
| 隔离度"LO-RF" Isolation "LO-RF" |     | 30  |     | dB       |
| 隔离度"LO-IF" Isolation "LO-IF" |     | 25  |     | dB       |
| 隔离度"RF-IF" Isolation "RF-IF" |     | 7   |     | dB       |

### 机械特性 Mechanical Specifications:

| 参数 Parameter    | 指标 Value      | 单位 Units |
|-----------------|---------------|----------|
| 端口1 Connector 1 | 2.92mm Female |          |
| 端口3 Connector 3 | 2.92mm Female |          |
| 端口2 Connector 2 | SMA Female    |          |
| 尺寸 Size         | 23.6*14.4*8   | mm       |

## 接口定义 Connector Functions:

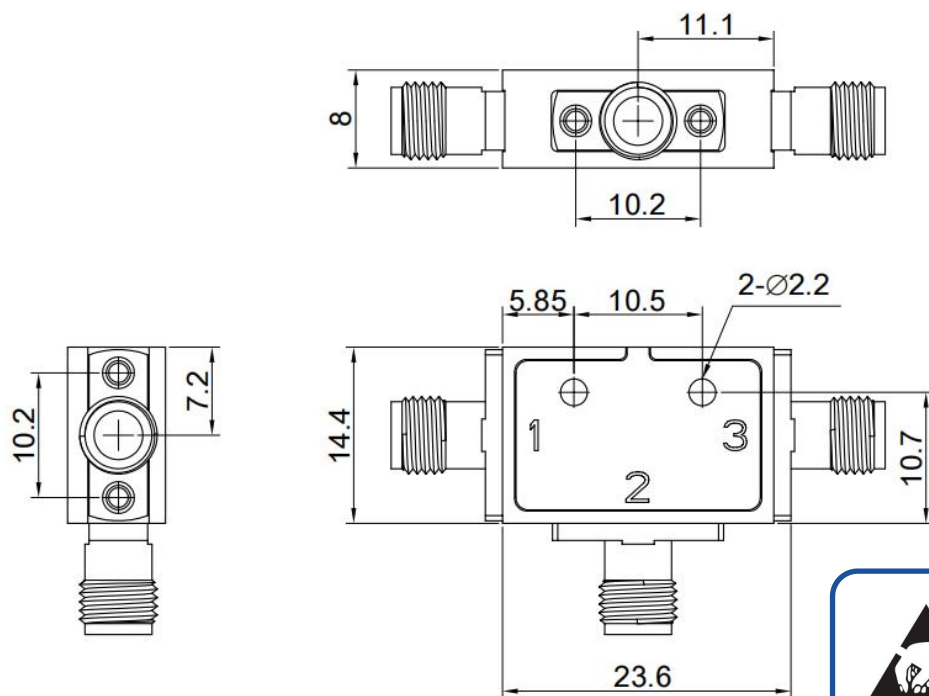
| 端口 Port | 功能 Function |
|---------|-------------|
| Port 1  | LO          |
| Port 2  | IF          |
| Port 3  | RF          |

## 绝对最大值 Absolute Maximum Ratings:

| 参数 Parameter                 | 指标 Value             |
|------------------------------|----------------------|
| LO输入功率 LO Input Power        | +21 dBm              |
| ESD灵敏度 ESD sensitivity (HBm) | Class 0, passed 150V |

## 外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

## 温度环境 Environmental Conditions:

| 参数 Parameter                       | Min                                                 | Typ | Max | 单位 Units |
|------------------------------------|-----------------------------------------------------|-----|-----|----------|
| 操作温度 Operating Temperature         | -40                                                 |     | +70 | °C       |
| 存储温度 Non-operating Temperature     | -55                                                 |     | +85 | °C       |
| 相对湿度 Relative humidity             |                                                     | 95  |     | %        |
| 海拔 Altitude                        | 10,000                                              |     |     | feet     |
| 震动 Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |     |          |
| 冲击 Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |     |          |

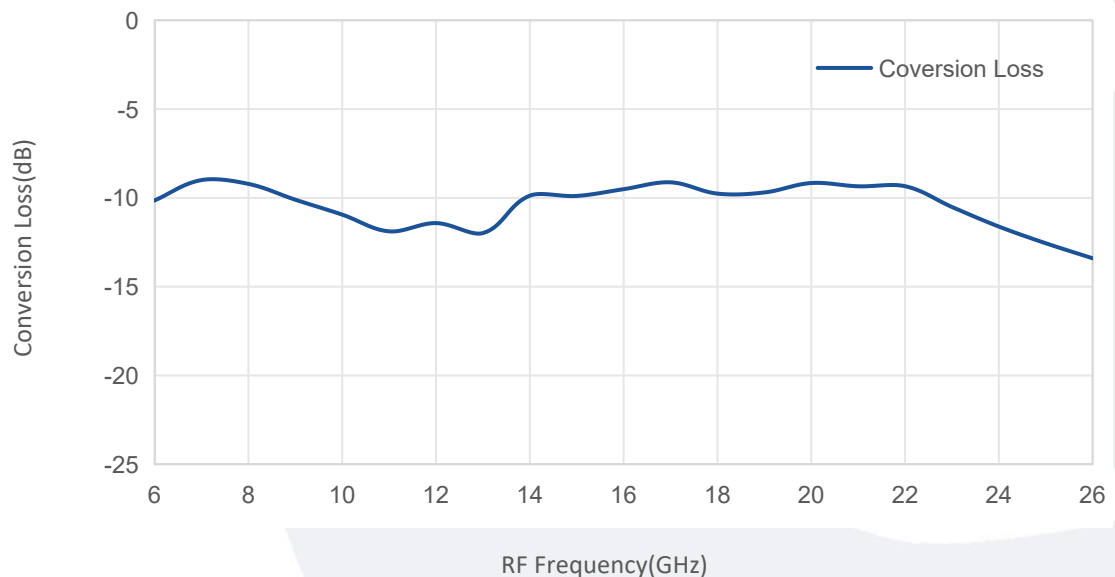
## 订货信息 Ordering Information:

| 标准型号 Base Number | 描述 Description                                           | 版本号 Revision |
|------------------|----------------------------------------------------------|--------------|
| TLBM-0626-S      | Dual Balanced Mixer<br>RF:6-26GHz,LO:6-26GHz,IF:DC-12GHz | Rev.1.2      |

## 典型曲线 Typical Performance Data:

Conversion Loss vs RF Frequency

IF=100MHz



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

## 典型曲线 Typical Performance Data:

### Isolation Loss vs RF Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.