

## W-band Spectrum Frequency Extension Systems

**75-110GHz /WR-10**

**Model: TLSM-075110-06-10**

TLSM-075110-06-10 spectrum frequency extension systems are a dedicated Test & Measurement solution for extending the range of your signal source to 75-110 GHz.

### **Features:**

- Frequency range: 75-110 GHz
- Conversion Loss SSB:10dB Typ
- Low conversion loss

### **Applications:**

- Frequency Extension
- Antenna measurements
- Material characterisation

### **Electrical Characteristics:**

| Parameter                 | Min  | Typ | Max   | Units |
|---------------------------|------|-----|-------|-------|
| Frequency range           | 75   |     | 110   | GHz   |
| IF Output Frequency       | DC   |     | 5     | GHz   |
| LO Input Frequency        | 12.5 |     | 18.33 | GHz   |
| LO Input Power            | 13   | 15  | 20    | dBm   |
| Multiplication Factor     | 6    |     |       |       |
| RF Input Power            |      | -10 | 0     | dBm   |
| Mixer Conversion Loss SSB |      | 10  |       | dB    |

### **Mechanical Specifications:**

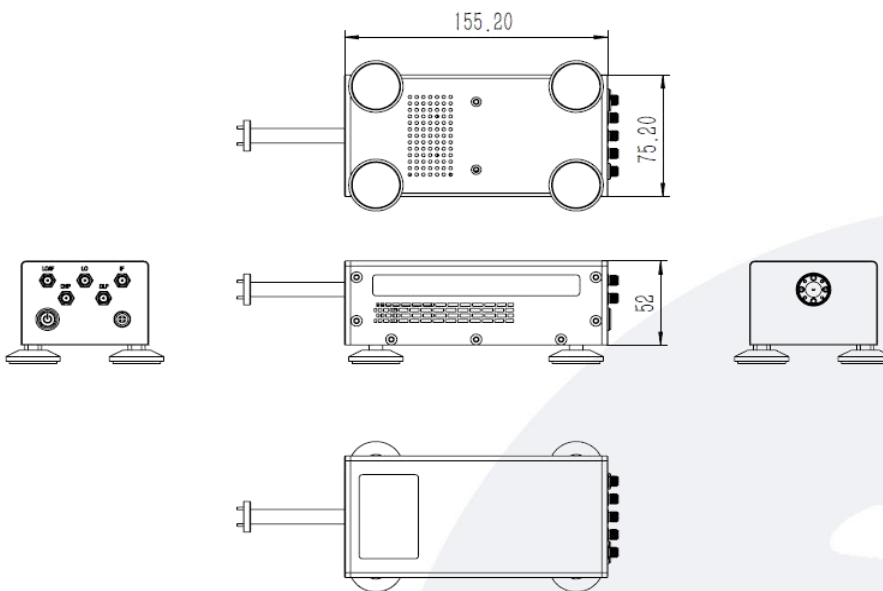
| Description      | Parameter      | Units |
|------------------|----------------|-------|
| RF Input Ports   | WR-10/UG-387/U |       |
| LO/IF Ports      | SMA Female     |       |
| LO Input Ports   | SMA Female     |       |
| IF Output Ports  | SMA Female     |       |
| DHP Ports        | SMA Female     |       |
| DLP Ports        | SMA Female     |       |
| Power Supply Pin | FGG 0B 4 Core  |       |
| Size             | 155.2*75.2*52  | mm    |

## Absolute Maximum Ratings :

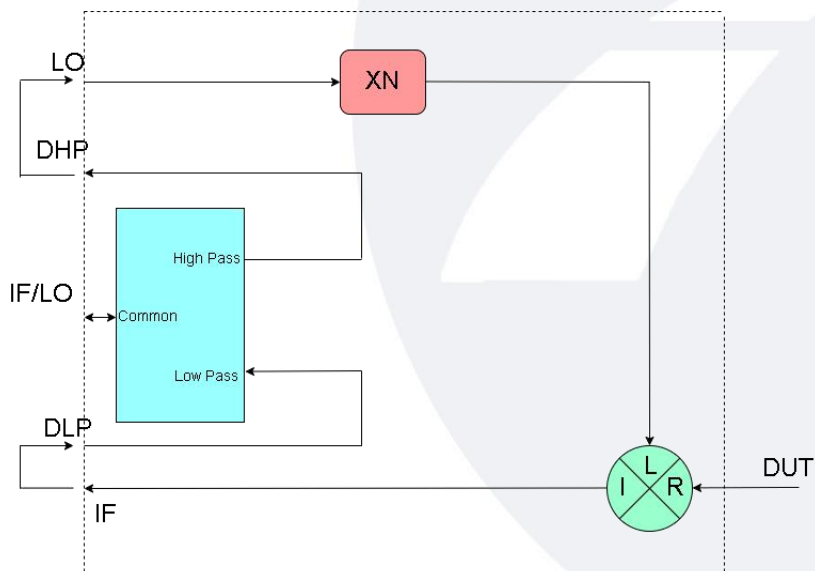
| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +240 V AC            |
| RF Input Power        | 0 dBm                |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm; Tolerance:±0.1mm



## Block Diagrams:



## Envrionmental And Physical Characteristics:

| Parameter                       | Min                                                 | Typ | Max | Units |
|---------------------------------|-----------------------------------------------------|-----|-----|-------|
| Operating Temperature           | -10                                                 |     | +65 | °C    |
| Non-operating Temperature       | -45                                                 |     | +85 | °C    |
| Relative humidity               |                                                     | 95  |     | %     |
| Altitude                        | 10,000                                              |     |     | feet  |
| Shock / Vibration(MIL-STD-810F) | 25g rms (15 degree 2KHz) endurance, 1 hour per axis |     |     |       |
| Shock(non operating)            | 20G for 11msc half sin wave,3 axis both directions  |     |     |       |

## Ordering Information:

| Part Number       | Description                                                                                 | Revision |
|-------------------|---------------------------------------------------------------------------------------------|----------|
| TL5M-075110-06-10 | W-Band Spectrum Frequency Extension Systems<br>X6,75-110GHz, Conversion Loss SSB: 10dB typ. | Rev.1.2  |

## Components Included:

| Part Number   | Description            | Quantity |
|---------------|------------------------|----------|
| TLACTDC-22012 | AC-to-DC Power Adapter | 1 PCS    |