

## V-Band Frequency Extender 50-75GHz/WR-15

**Model: TLSE-050075-30-15-HA**

TLSE-050075-30-15-HA frequency extenders are a dedicated Test & Measurement solution for extending the range of your signal source to 50-75 GHz.

### Features:

- Frequency range: 50-75 GHz
- Output Power: -10~+20dBm Typ
- Low power consumption

### Applications:

- Frequency Extension
- Antenna measurements
- Material characterisation

### Electrical Characteristics:

| Parameter             | Min  | Typ | Max  | Units |
|-----------------------|------|-----|------|-------|
| Frequency range       | 50   |     | 75   | GHz   |
| Output Power          | -10  |     | 20   | dBm   |
| Input Frequency       | 8.33 |     | 12.5 | GHz   |
| Frequency Step        |      | 0.1 |      | MHz   |
| Input Power           |      | 0   |      | dBm   |
| Power Step            |      | 0.5 |      | dB    |
| Switching Time        |      |     | 200  | us    |
| Multiplication Factor |      | 6   |      |       |
| Spurious Suppression  |      | 60  |      | dBc   |
| Harmonics Suppression |      | 50  |      | dBc   |
| Supply Voltage        |      | 220 |      | V AC  |

## Mechanical Specifications:

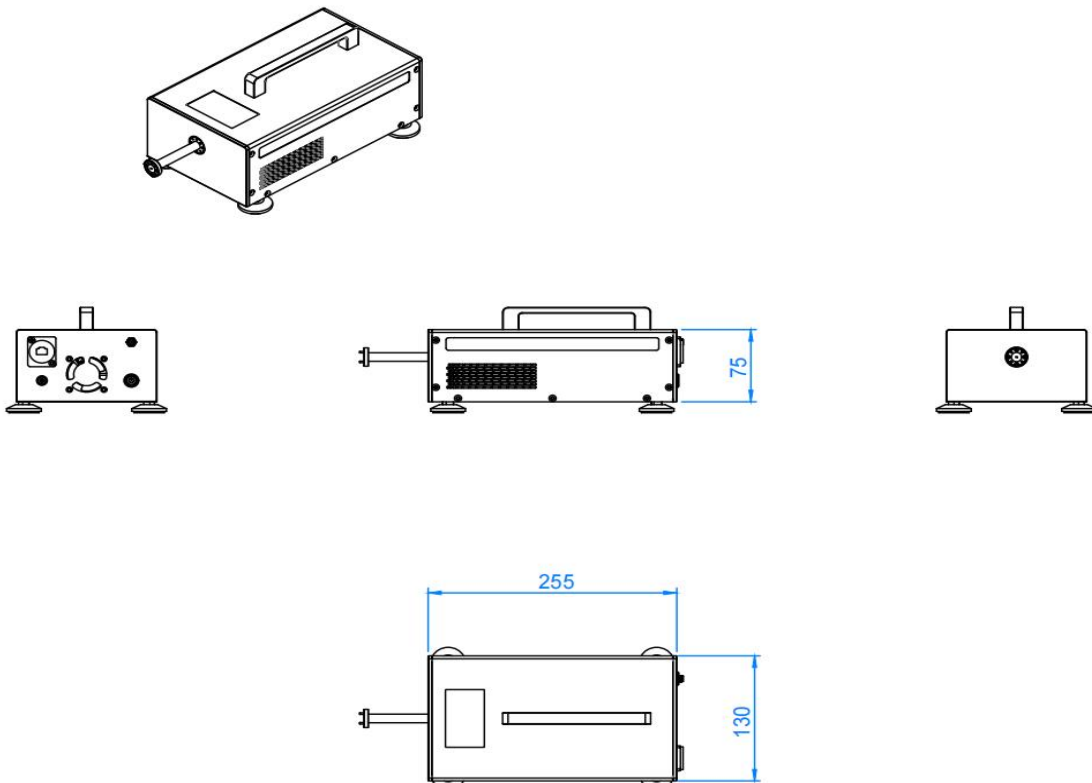
| 参数 Parameter     | 指标 Value       | 单位 Units |
|------------------|----------------|----------|
| Input Connector  | SMA Female     |          |
| Output Connector | WR-15/UG-385/U |          |
| Power Supply Pin | FGG 0B 4 Core  |          |
| Size             | 255*130*75     | mm       |

## Absolute Maximum Ratings:

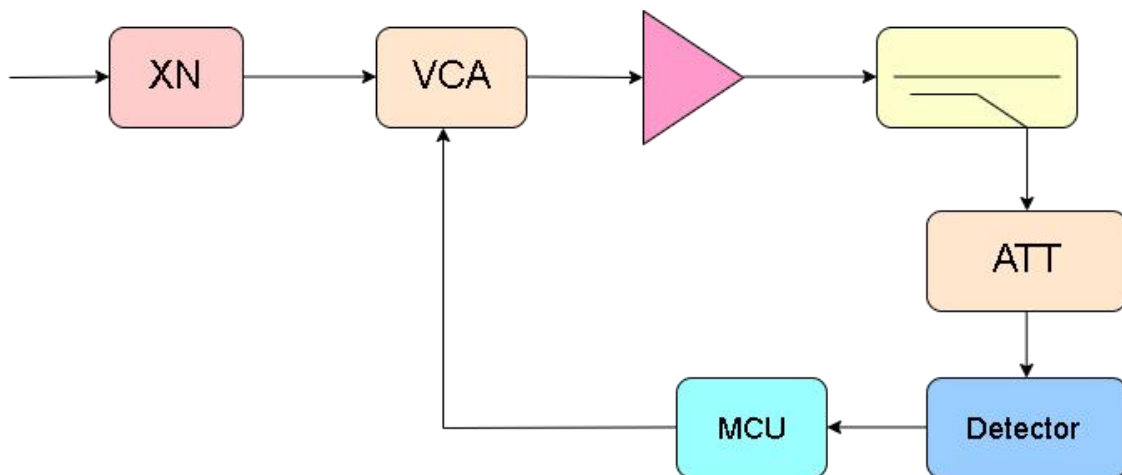
| Parameter             | Value                |
|-----------------------|----------------------|
| Supply Bias Voltage   | +240 V AC            |
| RF Input Power        | +10 dBm              |
| ESD sensitivity (HBm) | Class 0, passed 150V |

## Outline Drawing:

Unit:mm; Tolerance:±0.1mm



## Block Diagrams:



## Environmental Conditions:

| 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 |
|----------------------|---------------------------------------------------------------------|----------|
| TLSE-050075-30-15-HA | V-Band Frequency Extender,<br>X6,50-75GHz, Output Power: -10~+20dBm | Rev.1.0  |

## Components Included:

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