

## D-Band Frequency Extender 110-170GHz /WR-6.5

**Model: TLSE-110170-0330-06**

TLSE-110170-0330-06 frequency extenders are a dedicated Test & Measurement solution for extending the range of your signal source to 110-170 GHz.

### Features:

- Frequency range: 110-170 GHz
- Output Power : 2dBm Typ
- Low power consumption

### Applications:

- Frequency Extension
- Antenna measurements
- Material characterisation

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	110		170	GHz
Output Power		2		dBm
Dynamic Range (Optional mechanical Attenuator)		30		dB
Input Frequency	9.16		14.17	GHz
Input Power	3	5	7	dBm
Multiplication Factor		12		
Harmonic Suppression			-20	dBc
Input VSWR		2		:1
Output VSWR		2		:1
power stability		±0.12		dB
Supply Voltage	100	220	240	V

### Mechanical Specifications:

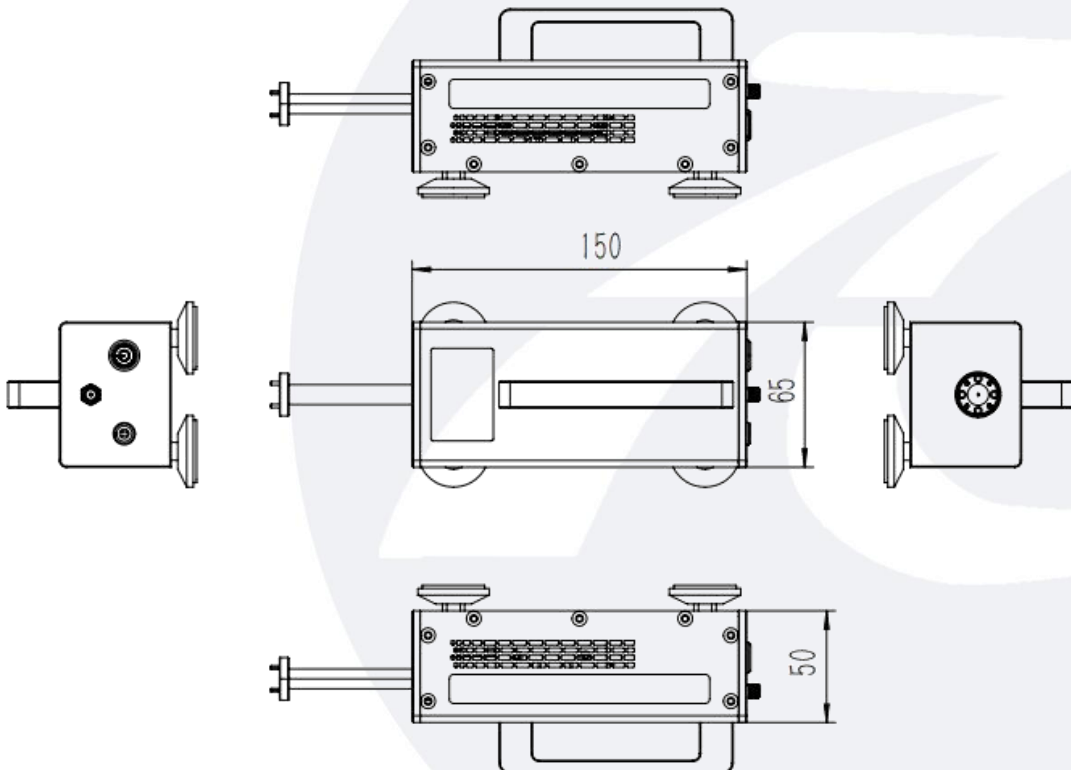
Parameter	Value	Units
Input Connector	SMA Female	
Output Connector	WR-6.5/UG-387/U	
Power Supply Pin	FGG 0B 4 Core	
Size	150*65*50	mm

### Absolute Maximum Ratings:

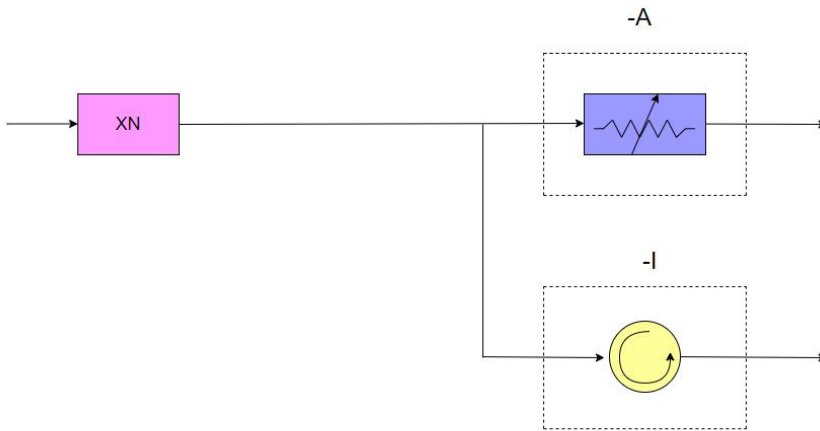
Parameter	Value
Supply Bias Voltage	+240 V AC
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



### 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:

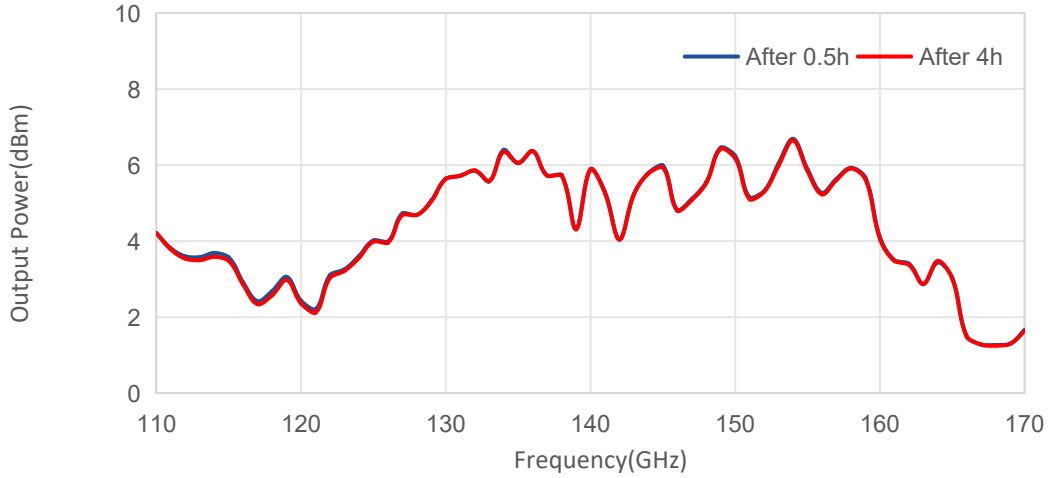
Part Number	Description	Option		Revision
		Optional Mechanical Attenuator	Isolation	
TLSE-110170-0330-06	D-Band Frequency Extender,X12,110-170GHz, Output Power: 2dBm	-A	-I	Rev.1.2

### Components Included:

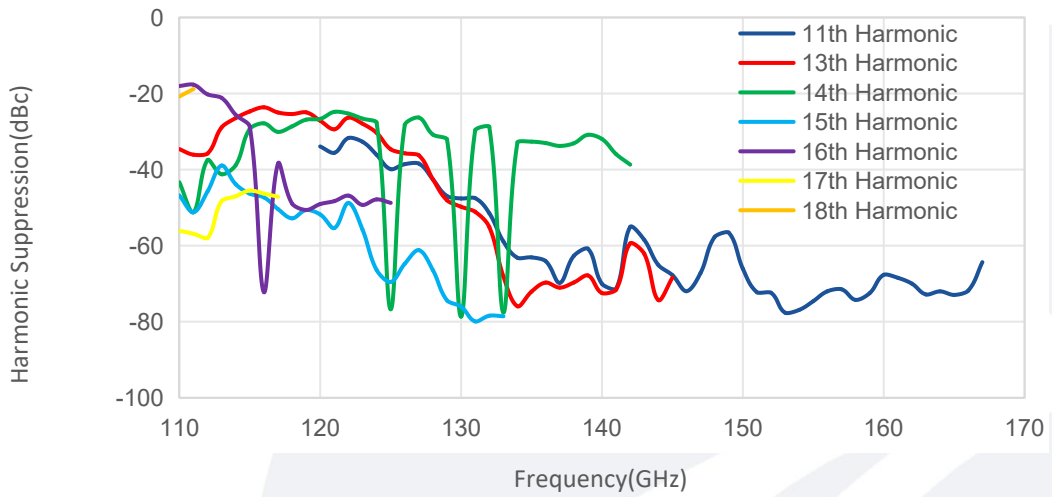
Part Number	Description	Quantity
TLACTDC-22012	AC-to-DC Power Adapter	1 PCS

**Typical Performance Data:**

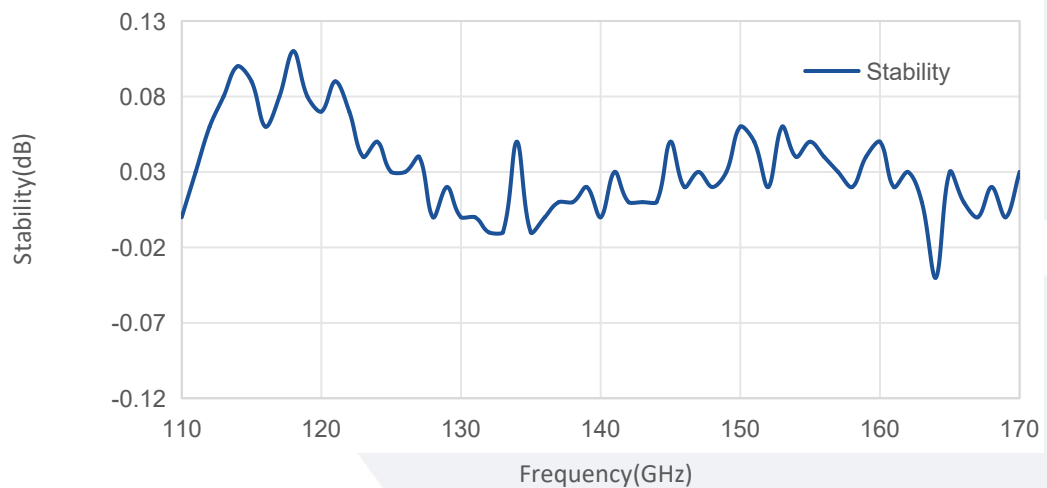
**Output Power vs Frequency**



**Harmonic Suppression vs Frequency**



**Power Stability vs 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.