

Down-conversion Extender

220-330 GHz /WR-03/

Model: TLDCM-220330-24-03

TLDCM-220330-24-03 down-conversion extenders provide seamless frequency coverage from 220 GHz to 330 GHz, utilizing a WR-03 waveguide RF connector . To support flexible operation and minimize unwanted signals,a set of four external bandpass filters is available. These filters enable the selective elimination of sideband and local oscillator signals, ensuring optimal performance and signal quality across the entire frequency range.

Features:

- Ultra Wide Band: 220-330 GHz
- Conversion loss: 12 dB Typ
- Unconditional stability

Applications:

- Frequency extenders for communication systems measurement
- 5G Backhaul Equipment Testing
- Antenna Testing
- 6G system chip measurement

Electrical Characteristics:

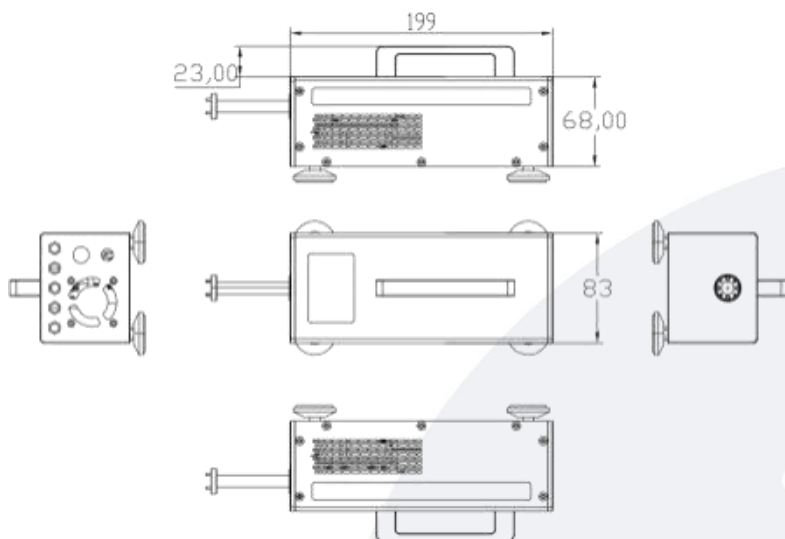
Parameter	Min	Typ	Max	Units
RF Input Frequency	220		330	GHz
LO Input Frequency	9.166		13.75	GHz
IF Output Frequency	DC		30	GHz
LO Input Power		+5		dBm
RF Input Power		-10	0	dBm
Conversion loss		12		dB
Multiplication Factor	24			
Supply Bias AC Voltage	100-240			V
Power Supply(External A)mplifier	+12			V

Absolute Maximum Ratings :

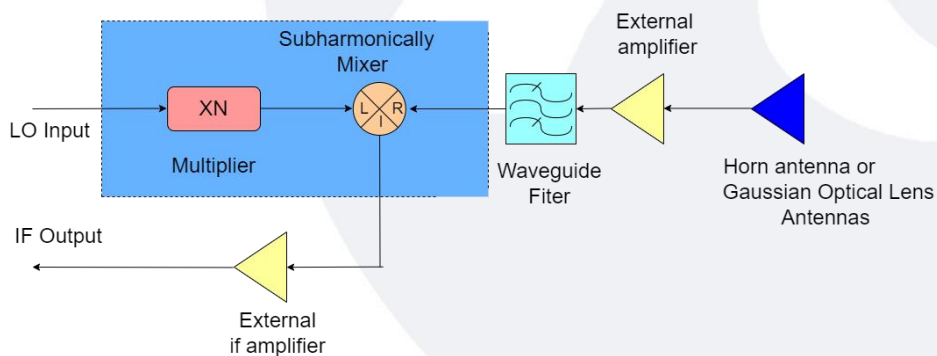
Description	Parameter	Units
RF Port Damage Level	+0	dBm
LO Port Damage Level	+10	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	
Supply Bias AC Voltage	240	V
Power Supply(External Amplifier)	+15	V

Outline Drawing:

Unit:mm



Block Diagrams:



Envrionmental And Physical Characteristics:

Description	Parameter	Units
Operating Temperature	0 To +45	°C
Storage Temperature	-55 to +125	°C
Material	Al	
Finish	Gray spray paint	
Size	199*83* 68mm	

Connector Information:

Parameter	Value
RF Input Connector	WR-03/UG-387
LO Input Connector	SMA Female
IF Output Connector	2.92mm Female
Amplifier Supply Connector	SMA female
Power Supply Pin	FGG 0B 4 Core

Ordering Information:

Part Number	Description	Revision
TLDCM-220330-24-03	Down-conversion Extender,220-330GHz,Conversion loss: 12 dB Typ;	Rev.1.1

Notes:

1. Dimensions and specifications may be changed without prior notice.
2. Standard Warranty:three years.

Typical Performance Data:

