



Block Up-Converter

Model: BUC-27G-32G-200-IP65

27-32GHz 200W CW, Output Power

Low power consumption, low phase noise and small size

Features:

- IF Frequency: 950~1950 MHz.
- RF Frequency: 27-32 GHz.
- Saturated output power: 200W.
- External/Internal Reference Adaptive.
- Protection: Input IF overdrive, over/under voltage, overTEM ,load VSWR protection

Applications:

- Communication/Radar Systems
- Test Labs

Product Overview:

The BUC-27G-32G-200-IP65 is a block up-converter operating in the Ka-band. It features an integrated local oscillator, with input IF frequency of 950-1950 MHz and output RF frequency of 27-32 GHz. Providing up to 200W of saturated output power, it also supports switchable functionality between internal and external references.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
IF Frequency Range	950		1950	GHz
IF Input Power		-2		dBm
IF to RF Gain		55		dB
RF Output Frequency Range	27		32	GHz
Output Power Psat	53			dBm
Gain Adjustment Range	20			dB
Gain Adjustment Step		0.5		dB
Linear Gain Flatness		±3		dB
Spurious@Pout=53dBm			-55	dBc
Harmonics@Pout=53dBm			-55	dBc
Two-tone intermodulation (5MHz space)	-25 dBc max at total output power 50dBm			
Phase Noise	@100Hz		-70	dBc
	@1KHz		-85	
	@10KHz		-92	
	@100KHz		-105	
VSWR		1.5	2	:1
AC Supply Voltage @single-phase (50-60Hz)	180	220	260	V AC
Power Consumption@Psat			2.5	KW

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature	-20°C to +60°C	
Non-operating Temperature	-40°C to +70°C	
RF Input/Output Connector	2.92mm Female/WR28	
M&C connectors	Serial:Y50X-1007; Ethernet: RJ-45	
AC power connector	Y50DX-1403	
Altitude	3,000	meters
Shock / Vibration(MIL-STD-810F)	10G rms (15 degree 2KHz) endurance	
Shock(non operating)	50G for 12msc half sin wave	
Ingress Protection Grade	IP-65	
Dimensions W x H x D	300*214*400	mm
Weight	≤40	Kg

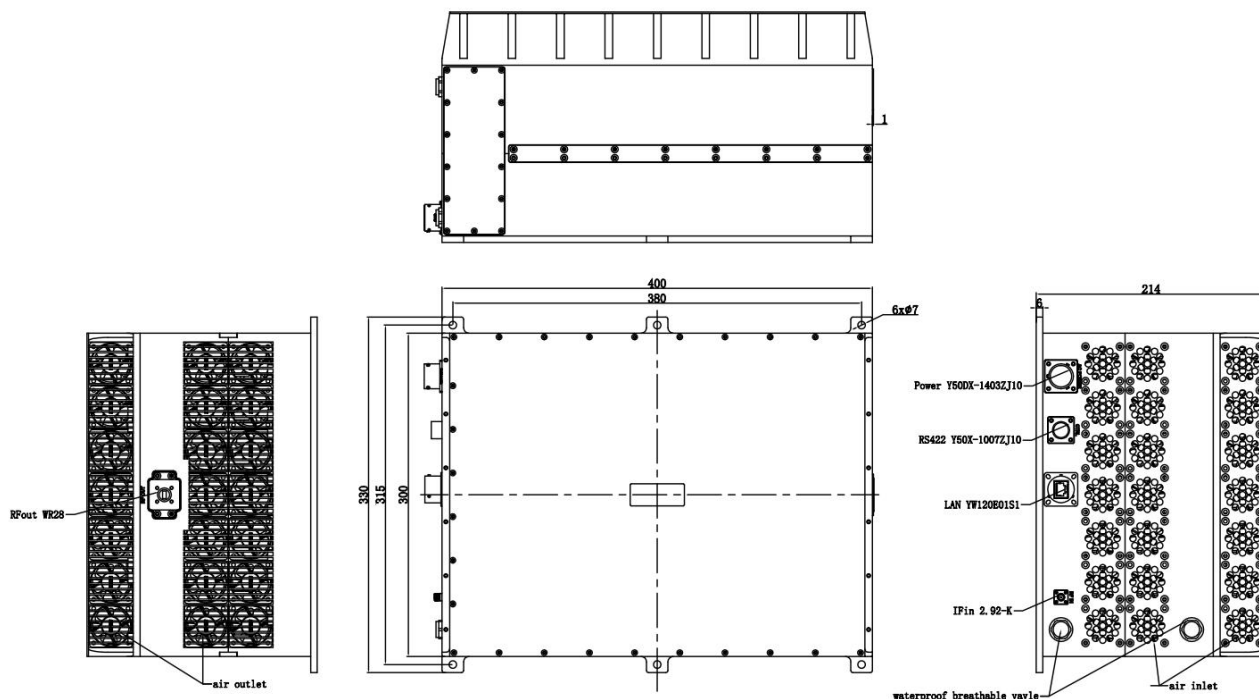


Absolute Maximum Ratings:

Parameter	Value
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm





Key Features:

Parameter	Advantages
Protection functions	1,Over TEM: $\geq+65^{\circ}\text{C}$ shutdown 2,Over DC voltage: $\geq 29\text{V}$ shutdown 3,Under DC voltage: $\leq 20\text{V}$ shutdown 4,Input IF overdrive: $\geq 10\text{dBm}$ shutdown 5,Load VSWR protection:The unit disables RF when reverse power exceeds the safe level of 3:1 VSWR or reduces power by 6dB
Monitoring functions	1,Input voltage 2,Input current 3,IF input power 4,Output VSWR 5,Output/reverse power 6,Status of gate voltages 7,Temperature
Cooling system	Built in Cooling system,forced air cooling

Ordering Information:

Base Number	Description
BUC-27G-32G-200-IP65	Block Up-Converter, IF frequency range:950-1950MHz; RF output frequency range: 27-32GHz; 200W output power