泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Block Up-Converter

53dBm Output Power

Model: TLBUC27G32G-200W-IP65

The TLBUC27G32G-200W-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.

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

电气特性 Electrical Characteristics:

参数 Parameter		Min	Typ	Max	单位 Units
IF频率范围 IF Frequency Range		950		1950	MHz
IF输入功率 IF Input Power			-2		dBm
IF to RF增益 IF to RF Gain			55		dB
RF输出频率范围 RF Output Frequency Range		27		32	GHz
输出功率 Output Power		53			dBm
增益可调范围 Gain Adjustment Range		20			dB
增益可调步进 Gain Adjustment Step			0.5		dB
线性增益平坦度 Linear Gain Flatness			±3		dB
杂散 Spurious@Pout=53dBm				-55	dBc
谐波 Harmonics@Pout=53dBm				-55	dBc
双音互调 Two-tone intermodulation （5MHz space）		-25 dBc max at total output power 50dBm			
相位噪声 Phase Noise	@100Hz			-70	dBc
	@1KHz			-85	
	@10KHz			-92	
	@100KHz			-105	
驻波 VSWR			1.5	2	:1
交流电压 AC Supply Voltage @single-phase (50-60Hz)		180	220	260	V AC
功耗 Power Consumption@Psat				2.5	KW

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机械特性 Mechanical Specifications:

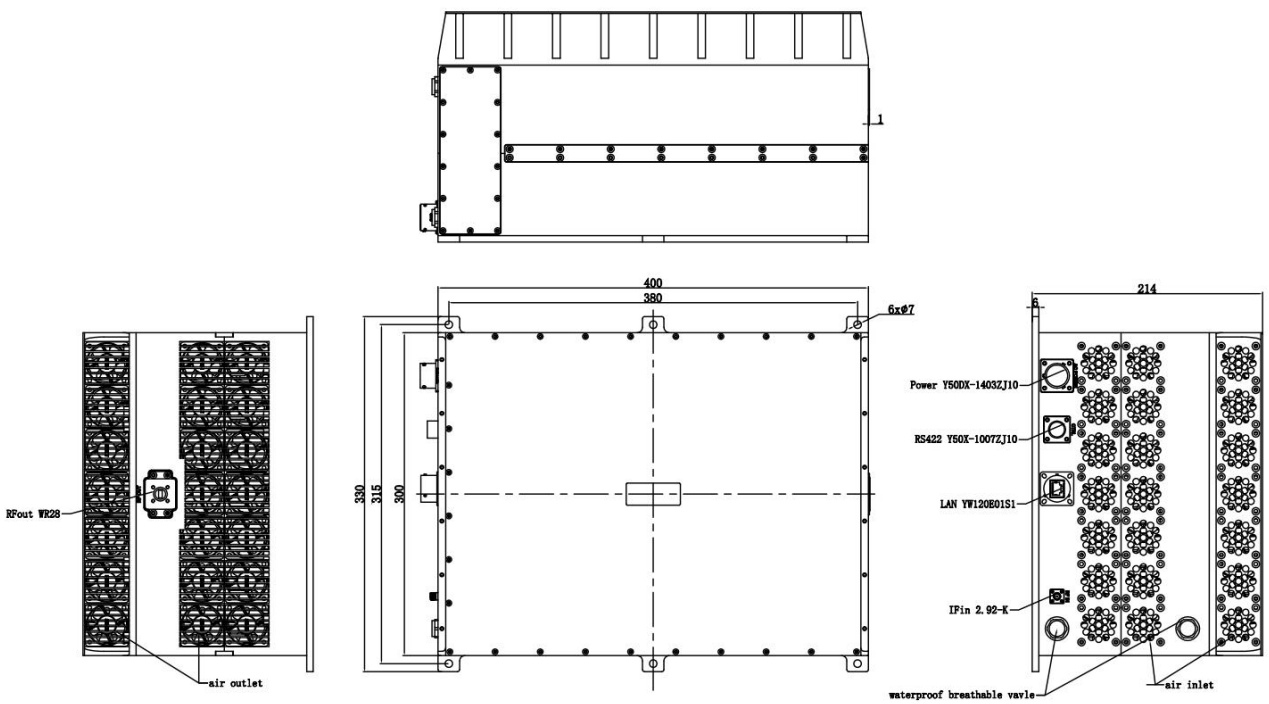
参数 Parameter	指标 Value	单位 Units
RF输入/输出接口 RF Input/Output Connector	2.92mm Female/WR28	
监控&控制接口 M&C connectors	Serial:Y50X-1007; Ethernet: RJ-45	
交流供电接口 AC power connector	Y50DX-1403	
防护等级 Ingress Protection Grade	IP-65	
尺寸 Size	300*214*400	mm
重量 Weight	≤40	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
IF输入功率 IF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形图 Outline Drawing:

Unit:mm



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主要功能 Key Features:

参数 Parameter	特点 Advantages
内置保护功能 Protection functions	1,Over TEM:≥+65℃ shutdown 2,Over DC voltage:≥29V shutdown 3,Under DC voltage:≤20V shutdown 4,Input IF overdrive:≥10dBm 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
监测功能 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
冷却系统 Cooling system	Built in Cooling system,forced air cooling

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-20		+60	℃
存储温度 Non-operating Temperature	-40		+70	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	3,000			meters
震动 Shock / Vibration(MIL-STD-810F)	10G rms (15 degree 2KHz) endurance			
冲击 Shock(non operating)	50G for 12msc half sin wave			

订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLBUC27G32G-200W-IP65	Block Up-Converter, IF frequency range:950-1950MHz; RF output frequency range: 27-32GHz; 200W output power	Rev.1.1