泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Power Amplifier

11.7-15GHz /53dB Gain/53 dBm Psat Model: TLPA11.7G15G-53-53-IP65

TLPA11.7G15G-53-53-IP65 is a power amplifier with a typical small signal gain of 65 dB and a nominal Psat of 53 dBm across the frequency range of 11.7 to 15 GHz. The DC power requirement for the amplifier is +28VDC. The input port configuration offers coax adapter structure with N female and output port is WR75.

Features:

- Ultra Wide Band: 11.7-15 GHz
- Power Gain: 53dB Min
- Output Power Psat: 53dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range		11.7-15		GHz
线性增益 Linear Gain		65		dB
线性增益平坦度 Linear Gain Flatness		±4		dB
功率增益 Power Gain	53			dB
饱和输出功率 Output Psat	53			dBm
饱和输出功率平坦度Output Psat flatness			±1.5	dB
增益调节范围 Gain adjust Range	30			dB
增益调节步进 Gain adjust Step		0.5		dB
增益稳定度 Gain stability@24h		±0.25		dB
杂散 Spurious@Pout=53dBm			-60	dBc
谐波抑制 Harmonic@Pout=53dBm			-25	dBc
驻波 VSWR			1.5	:1
匹配负载驻波 Load VSWR			3	:1
直流电压 DC Voltage		28	29	V DC
功耗 Power Consumption@Pout=53dBm		1.5		kW
功耗 Power Consumption@Psat			2	kW

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电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
防护等级 Ingress Protection Grade		IP-65		
阻抗 Impedance		50		Ohms

机械特性 Mechanical Specifications:

参数 Parameter	指标 Value	单位 Units
输入/输出接口 Input /Output Connector	N Female/WR75	
直流供电接口 DC Power Connector	Y50DDX-1203	
下载接口 Update connector	J30J-9ZKP	
监测&通信接口 M&C connector	Ethernet:RJ-45	DCU/UDP（choose one）
尺寸 Size	440*370*150	mm
重量 Weight	≤30	Kg

绝对最大值 Absolute Maximum Ratings:

参数 Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+29 V
输入功率 RF Input Power	+10 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

主要功能 Key Features:

参数 Parameter	特点 Advantages
保护功能 Protection functions	1,Over TEM:≥+65℃ shutdown 2,Over voltage:≥29.5V shutdown 3,Load VSWR protection:The unit disables RF when reverse power exceeds the safe level of 3:1 VSWR or reduces power by 6dB
监控功能 Monitoring function	1,Chip-level: status of power chip(gate voltage, drain current, case-temp); 2,System-level: output power, reverse power, load VSWR, DC voltage, DC current, environment temp, Cool-plate temp.

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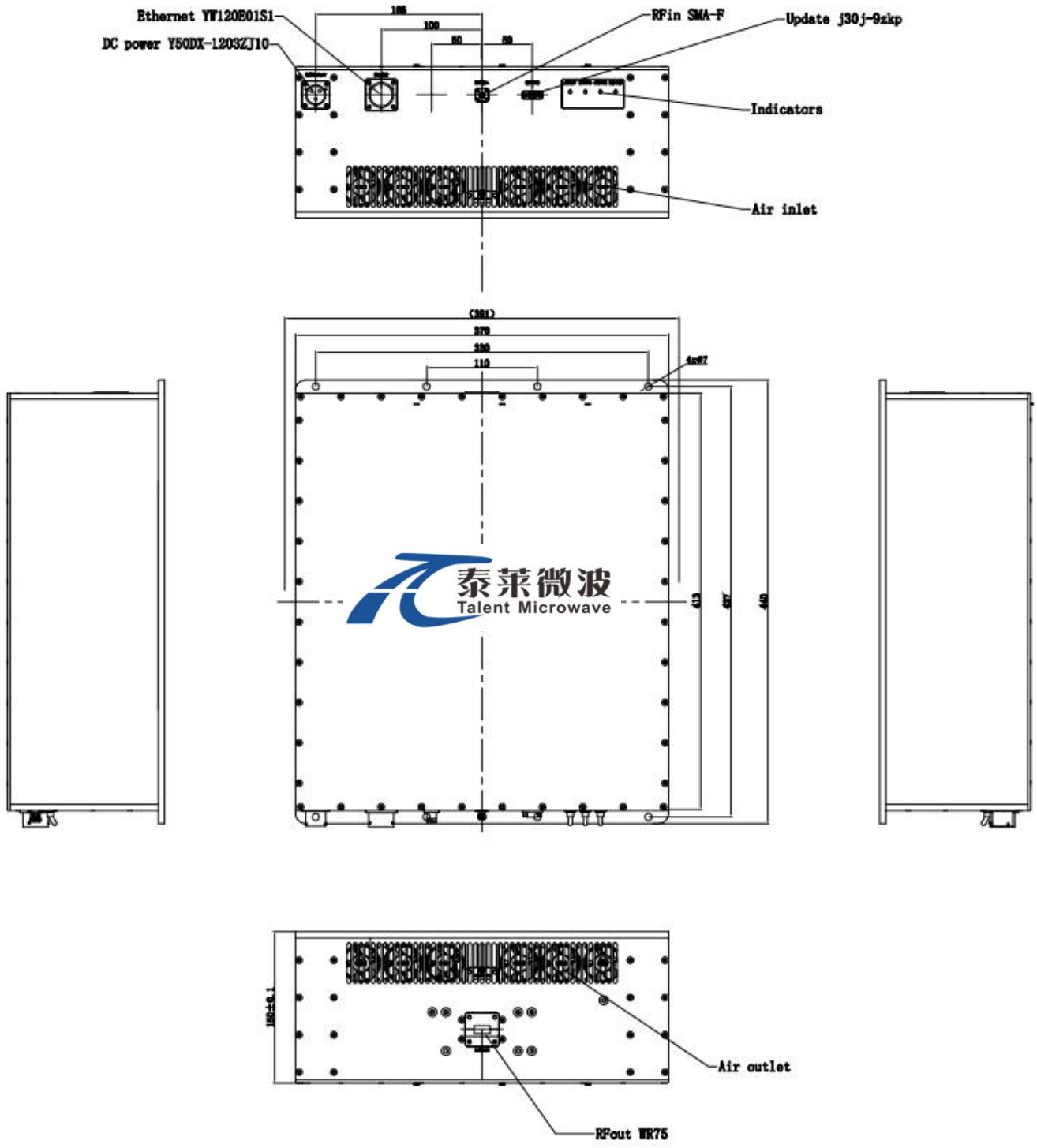
外形图 Outline Drawing:

Unit:mm



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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*	-50		+70	℃
相对湿度 Relative humidity			95	%
海拔 Altitude			3000	meters
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

*Note: For a wider temperature range, please consult the manufacturer.

订货信息 Ordering Information:

标准型号 Base Number	描述 Desciption	版本号 Revision
TLPA11.7G15G-53-53-IP65	Power amplifier 11.7-15GHz,Gain:53dB,Psat:53dBm, +28V DC,Ingress Protection Grade:IP-65	Rev.1.1