1. Product Description

This product is a 1.2GHz 7W bidirectional power amplifier (one transmitting channel and one receiving channel), specifically developed for 1.4GHz wireless data and video transmission applications. Utilizing advanced single-carrier modulation technology, it significantly extends the wireless communication distance while maintaining the transmission rate of wireless devices unchanged, and offers strong anti-interference capabilities. The product features a compact size, high efficiency, excellent linearity, and reliable stability, making it widely applicable in various industries such as drones, emergency communications, wireless security, and power systems.

2. Electrical Characteristics

	Characteristics	Min.	Typ.	Max.	Unit	Conditions
General	Duplex Mode		TDD			
	Frequency	1170		1280	MHz	**customizable**
	Powr supply		12	24	V	
	Operating Temp.	-40		70	℃	
Tx Channel	Tx Gain		20		dB	**customizable**
	Max Output Power（P1dB）		7		W	
	Linear output power		32		dBm	EVM<5%
	EVM@Pout=32dBm		-26		dB	802.11g 54Mbps OFDM 64QAM BW 20MHz
	Ripple		0.2	0.3	dB	
	Current		360	400	mA	@Pout=32dBm, VCC=12V
	Tx/Rx Switch Time Delay			1	us	
	Input Trigger Power	4		19	dBm	
Rx Channel	Rx Gain		18		dB	**customizable**
	Noise Figure		1.2	1.5	dB	
	Current		40		mA	
	Ripple		0.1	0.2	dB	

3. Interface Definition

Interface	Description	Connector type	Electrical Characteristics
RFIN	Tx RF signal input Rx RF signal output	SMA	50Ω
RFOUT	Tx RF signal output Rx RF signal input	SMA	50Ω
POWER	Power Supply		+12V~24V

4. Working and storage environment requirements

a) Temperature： -40～+70℃;

b) Working Relative Humidity： 5%～95%， No condensation;

c) Atmospheric pressure： （70～106）kPa;

d) Storage temperature： -40～+125℃;

e) Storage Humidity：5%～98%， No condensation.

5. Size :73*43*15 (L*W*H，Unit:mm); Weight：85g