

Narrowband High Power Amplifier Module (SSPA)

Version.1.0_2025.08.27

1100-1300MHz/200Watt/Module

Model Number: KN1200M53A

The model KN1200M53A is a high power amplifier operating between 1100MHz and 1300MHz with 200 Watts typical saturated power. The employment of gallium nitride (GaN) and chip-and-wire technology in manufacturing ensures this module state-of-the-art power performance with excellent power-to-volume ratio. It is ideal for jamming, EMC, test and measurement applications.

FEATURES:

- Small Size and Light Weight
- 50 Ohms Input and Output Matched
- Built-in Control and Protection Circuits

ELECTRICAL SPECIFICATIONS @ +28.0VDC, 25°C, 50Ω

Parameter	Symbol	Min	Typ	Max	Units
Operating Frequency	BW	1100		1300	MHz
RF Output Power	PSAT		200		Watt
Power Gain	G		53		dB
Power Gain Flatness	Δ G		±1.5		dB
Input Return Loss	S ₁₁			-10	dB
Spurious Signals	Spur		-55		dBc
Switching Time @1kHz TTL	T _{on/off}		2	5	uSec
In/Output Impedance	Impedance		50		Ω
Operating Voltage	V _{DC}	26	28	30	Volt
DC Current @200W	I _{DD}		20		Amp

MECHANICAL SPECIFICATIONS

Parameter	Value	Units	Notes
Dimensions	220x130x30[8.66x5.12x1.18]	mm [inch]	Maximum
Weight	2.2[4.85]	Kg [lbs]	Maximum
RF Connectors Input	SMA, Female		
RF Connectors Output	Type-N, Female		
DC Interface Connector	Hybrid, D-Sub 7-Pin, Male		
Cooling	External Heatsink Required(Not Supplied)		

ENVIRONMENTAL CHARACTERISTICS (Design to Meet)

Parameter	Min	Typ	Max	Units	Notes
Ambient Temperature	-20		60	°C	Operating case temperature up to +85°C
Non-operating Temperature	-45		85	°C	Storage
Relative Humidity (non-condensing)			95	%	

ABSOLUTE MAXIMUM RATING

Input RF drive level without damage	+5dBm
Load VSWR @ POUT =80W	∞ @ all load phase & amplitude for duration of 1minute; 3:1 @ all load phase & amplitude continuous
Over Temperature	95°C @ heatsink [restored @ 60°C]

Focus on Your Application

Chengdu KeyLink Wireless Technology Co., Ltd.

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761

>> Fax: +86(28)87883266

>>Email: sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice

Narrowband High Power Amplifier Module (SSPA)

Version.1.0_2025.08.27

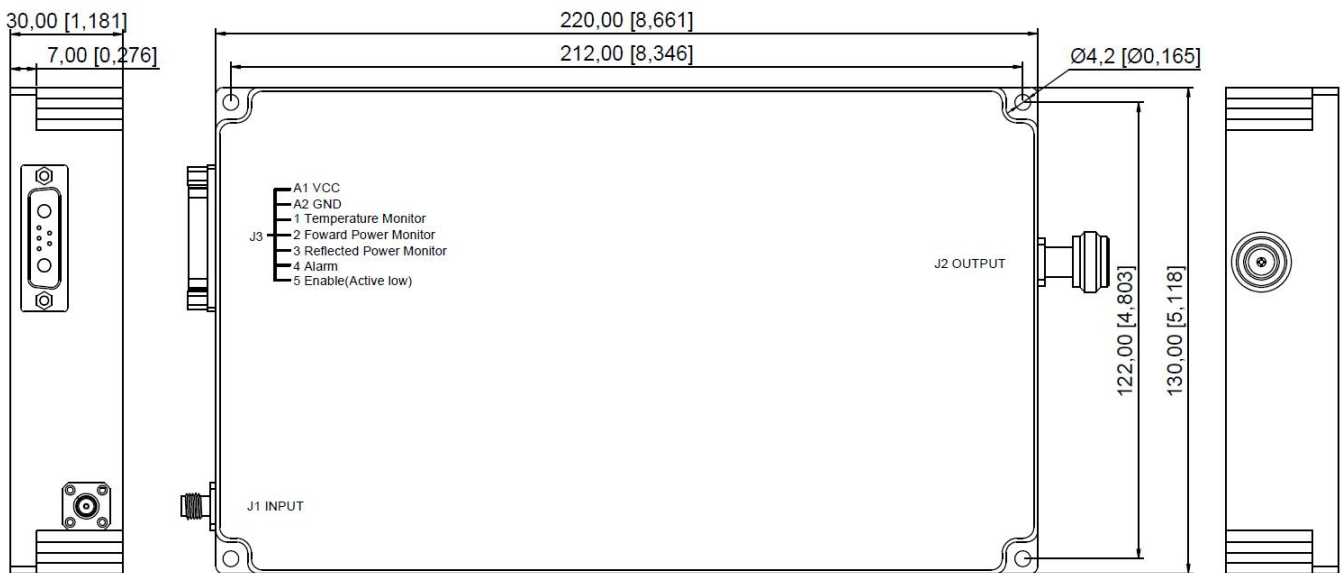
1100-1300MHz/200Watt/Module

Model Number: KN1200M53A

DC INTERFACE CONNECTOR

Pin #	Description	Specifications
A1	VCC	+28.0V
A2	GND	Ground
1	Temperature Monitor	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
2	Foward Power Monitor	Analog voltage relative to forward power level
3	Reflected Power Monitor	Amplifier voltage relative to reflected power level
4	Alarm	Alarm:TTL High
5	Enable(Active low)	Pulled-up @5V with 10kohm

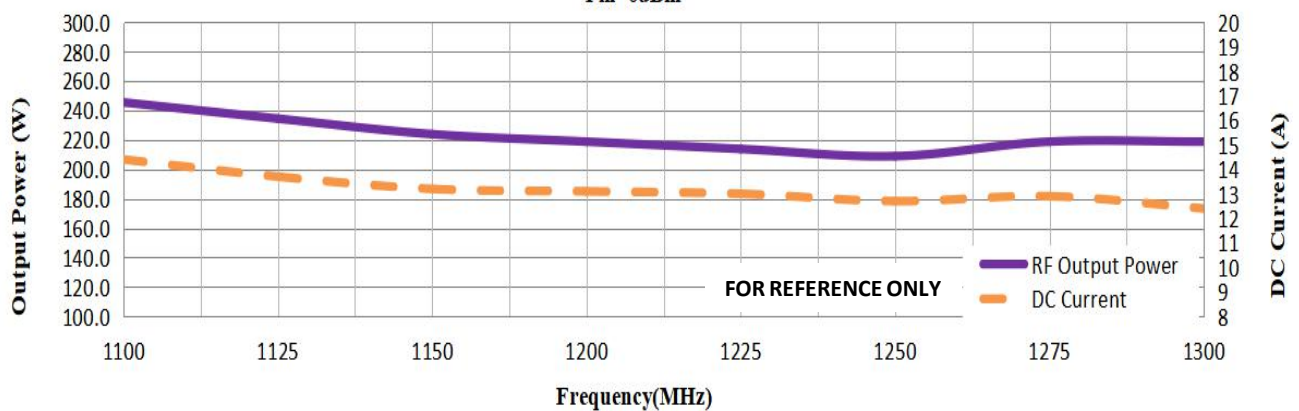
OUTLINE DRAWING (All dimensions in mm [inch])



TYPICAL PERFORMANCE PLOTS(FOR REFERENCE ONLY)(Please contact the sales for special requirements)

RF Output Power , DC Current, Frequency

Pin=0dBm



Note: Adequate heatsink required.

Focus on Your Application

Chengdu KeyLink Wireless Technology Co., Ltd.

>> 5-2, Huidu Headquarters Park, High-Tech(West) Zone, Chengdu, 611731, P. R. China

>> Phone: +86(28)87870761

>> Fax: +86(28)87883266

>> Email: sales@keylinkmw.com

>> www.keylinkmw.com

Specifications subject to change without notice