

INS3026

2500-6000MHz 35W Broadband GaN Power Amplifier



Description

The Model INS3015 is a high power, class AB solid state amplifier which utilizes the latest GaN Technology to offer broadband performance from 2500 to 6000MHz. Inspower's ISO9001 quality management system assure consistent performance and highest reliability

Product Features

- 50Ω RF impedance, Fully Integrated Matching
- 35W Output
- Single Supply Operation : Nominally 28V
- Built-in monitoring functions
- High reliability and ruggedness

Electrical Specifications @ +28.0VDC, 25°C, 50Ω System

Symbol	Parameter	Unit	Min.	Typ.	Max.
BW	Operating Frequency	MHz	2500		6000
P _{SAT}	Power Output Saturated	Watt	35	40	
P _{1dB}	Power Output P1dB	Watt		10	
G _{1dB}	Power Gain	dB	46	48	
P _{IN}	Input Power for Rated P _{SAT}	dBm		0	
ΔG _{SS}	Small Signal Gain Flatness	dB			±3.0
ΔG _P	Power Gain Flatness	dB		±1.0	±2.0
S11	Input Return Loss	dB			-10
IP3	Third Order Intercept Point 2-Tone@37dBm/Tone, 1MHz Spacing	dBm		+50	
H	Harmonics @Pout=35 10W	dB		-25	
Spur	Spurious Signal	dBc		-70	-60
V _{DC}	Operation Voltage	Volt	27.0	28.0	29.0
I _{DD}	Current Consumption @Pout=35W	Amp		7	9
I _{DQ}	Quiescent Current	Amp		3	4
T _{ON/OFF}	Switching Time	uSec			5

Mechanical Specification

Parameters	Value	Limit	Unit
Dimension (L × W × H)	185 (W) * 90(D) * 20(H)	-	mm
RF Connector Input/Output	SMA Female	-	-
DC Interface Connector	D-Sub 9pin Male	-	-
Weight	1	Max	Kg
Cooling	External Heat-sink	-	-

Environmental Characteristics

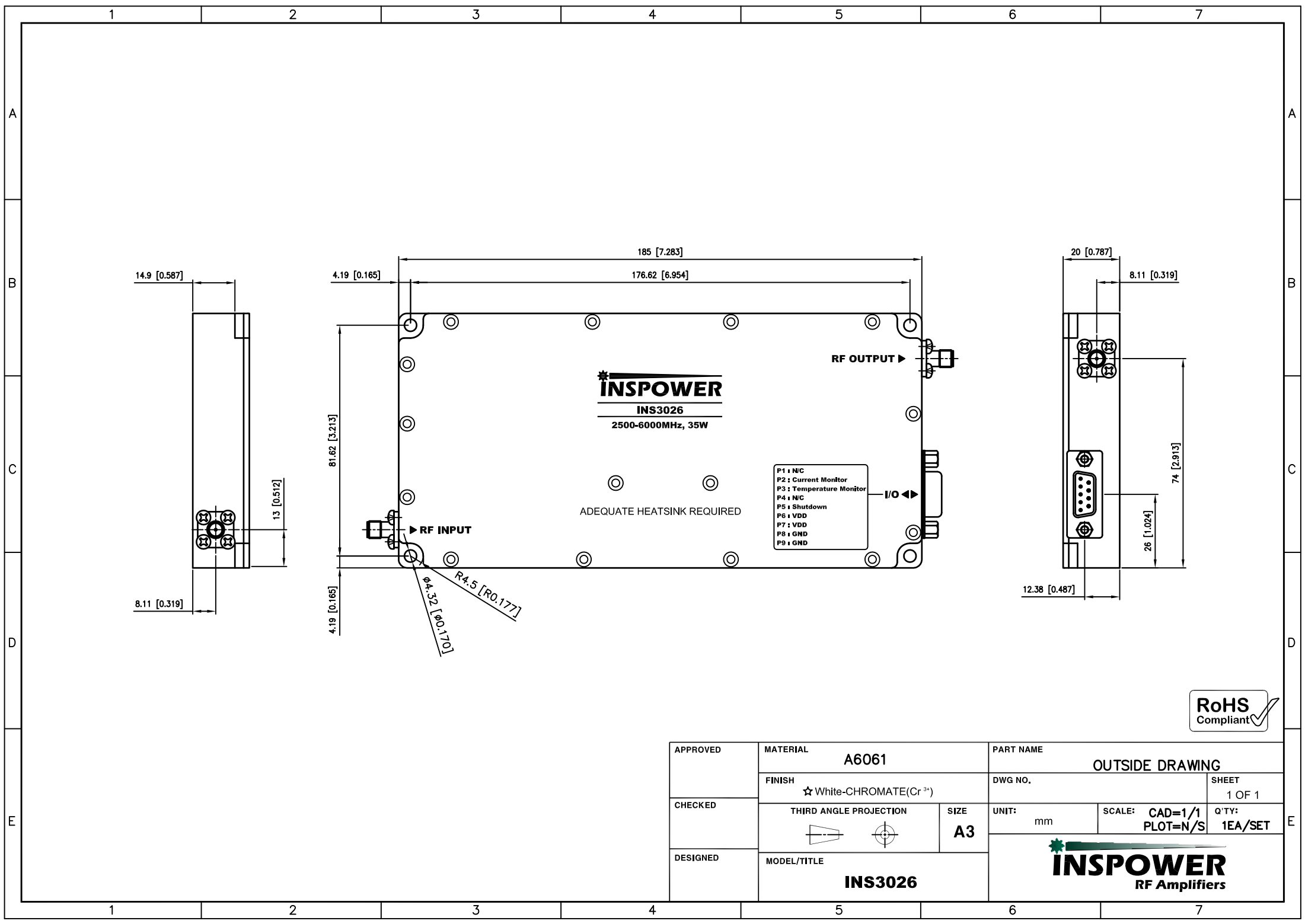
Parameters	Specifications	Remark
Operating Case Temperature Range	-30°C to +80°C	
Storage Temperature	-40°C to +85°C	
Relative Humidity non-condensing	95%	

Protection

Item	Specifications for Activation	Remark
Input Overdrive	+10dBm Max	
Load VSWR @ POUT = 35W	∞ :1	
Thermal Gain Degradation	85°C Min	

I/O Interface (D-sub 9pin Male)

Pin No	Pin Description	Specifications	Remark
1	N/C	Not Connected	
2	Current Monitor	Analog Voltage Relative to IDD @ 50mV/100mA	
3	Temperature Monitor	Vout=10mV/°C×Temp+500mV	
4	N/C	Not Connected	
5	Shutdown	Enable : TTL "0" or Open Disable: TTL "1" = 3.3-5V	
6	VDD	+28VDC	
7	VDD	+28VDC	
8	GND	Ground	
9	GND	Ground	



APPROVED	MATERIAL	A6061		PART NAME		OUTSIDE DRAWING	
	FINISH	☆ White-CHROMATE(Cr ³⁺)		DWG NO.			SHEET 1 OF 1
CHECKED	THIRD ANGLE PROJECTION		SIZE	UNIT:	SCALE:	Q'TY:	
			A3	mm	CAD=1/1 PLOT=N/S	1EA/SET	
DESIGNED	MODEL/TITLE			 INSPOWER RF Amplifiers			
				INS3026			