

Description

The Model INS2028 is a designed for broadband or band specifics applications. This high Power, class AB solid state amplifier utilizes the latest GaN Technology to offer excellent efficiency and broadband performance from 4400 to 5000MHz. Inspower's ISO9001 quality management system assure consistent performance and highest reliability.

Product Features

- 50Ω RF impedance, Fully Integrated Matching
- 3W Output
- Single Supply Operation : Nominally 12V
- Built-in Isolator
- High reliability and ruggedness

Electrical Specifications @ +12.0VDC, 25°C, 50 Ω System

Symbol	Parameter	Unit	Min.	Typ.	Max.
BW	Operating Frequency	MHz	4400		5000
P _{SAT}	Power Output Saturated	Watt	3	5	
G _{TdB}	Power Gain	dB	34		
P _{IN}	Input Power for Rated P _{SAT}	dBm		0	3
ΔG _P	Power Gain Flatness	dB			±1.0
S ₁₁	Input Return Loss	dB			-10
H	Harmonics @Pout=3W	dBc		-45	-40
V _{DC}	Operation Voltage	Volt		12	
I _{DQ}	Quiescent Current	Amp		1	1.5
I _{DD}	Current Consumption @Pout=3W	Amp			2.0

Mechanical Specifications

Parameters	Value	Limit	Unit
Dimension (W × D × H)	90 * 90 * 20	-	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%	

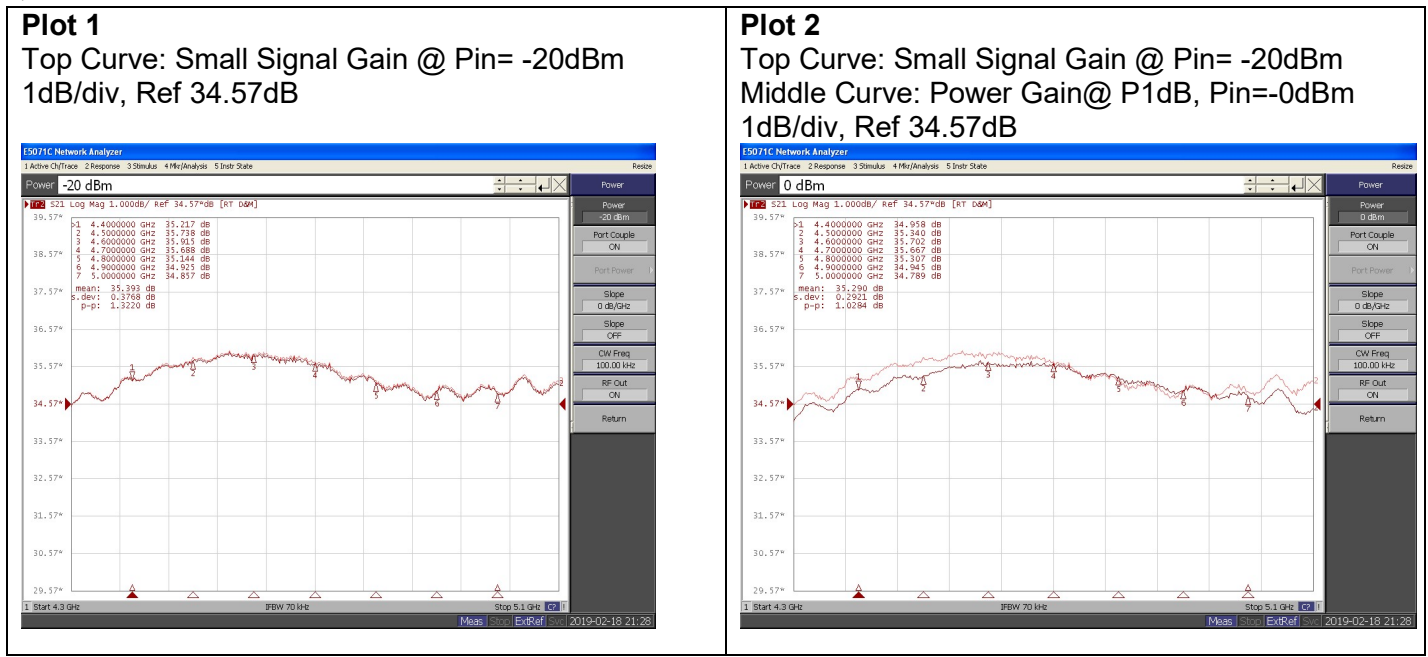
Protection

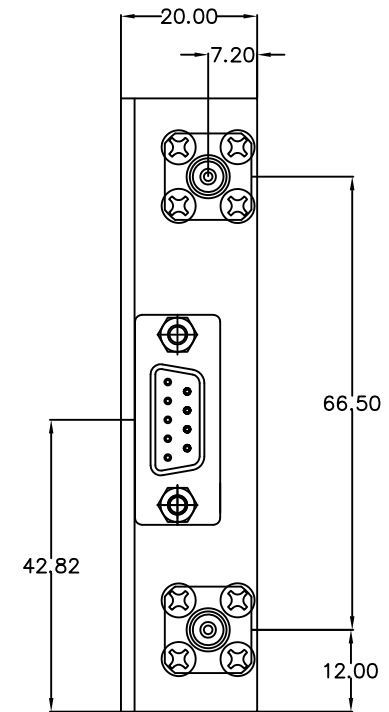
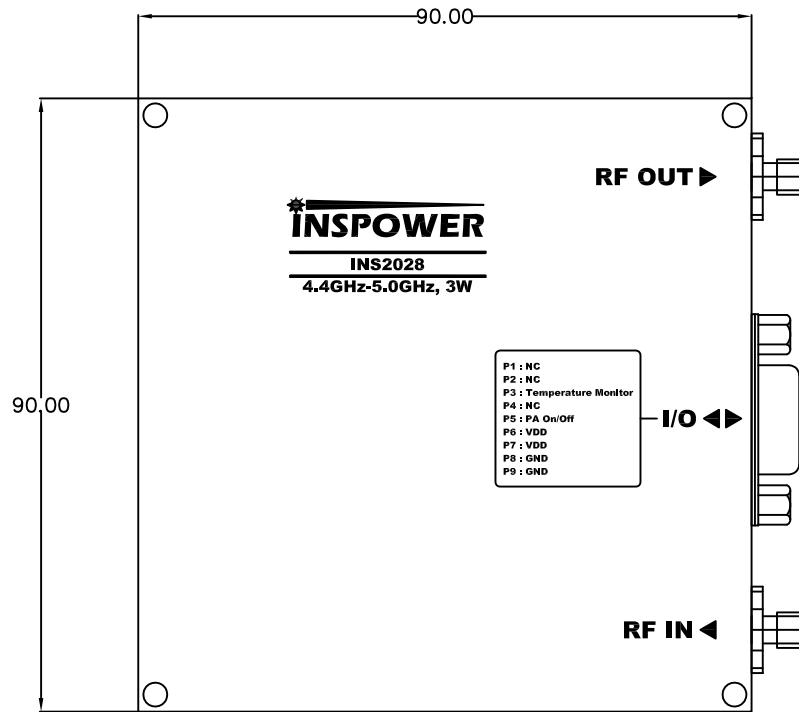
Item	Specifications for Activation	Remark
Input Overdrive	+10dBm Max	
Load VSWR	∞ : 1	

I/O Interface (9PIN D-SUB Male)

Pin No	Pin Description	Specifications	Remark
1	N/C	Not Connected	
2	N/C	Not Connected	
3	Temperature Monitor	Vout=10mV/°C×Temp+500mV Temp=Case Temperature ± 5°C	
4	N/C	Not Connected	
5	PA On/Off	Enable : TTL "0" = 0V or Open Disable: TTL/CMOS "1" = 3.3-5V	
6	VDD	+12V _{DC}	
7	VDD	+12V _{DC}	
8	GND	Ground	
9	GND	Ground	

Typical Characteristics





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: CAD=1/1	Q'TY:	
			A3	mm	PLOT=N/S		
DESIGNED	MODEL/TITLE						
W.S.Kim	INS2028						