

INS5037

700-2700MHz 100W Broadband Power Amplifier



Description

The Model INS5037 is a high power, class AB solid state amplifier which utilizes the latest GaN Technology to offer broadband performance from 700 to 2700MHz. The amplifier is constructed within on single 2RU drawer including the forced air cooling. Available operating voltage configurations are single-phase 100-240VAC. Inspower's ISO9001 quality management system assure consistent performance and highest reliability.

Product Features

- 50Ω RF impedance, Fully Integrated Matching
- 100W Output
- Built-in monitoring functions
- High reliability and ruggedness
- Application: CW, AM, FM

Electrical Specifications @ 25°C, 50 Ω System

Symbol	Parameter	Unit	Min.	Typ.	Max.
BW	Operating Frequency	MHz	700		2700
P _{SAT}	Power Output Saturated	Watt	100		
P _{1dB}	Power Output @ P _{1dB}	Watt		50	
P _{IN}	Input Power for Rated P _{SAT}	dBm		0	+3
ΔG _{SS}	Small Signal Gain Flatness	dB			±3
ΔG _P	Power Gain Flatness	dB			±2
S ₁₁	Input Return Loss	dB			-10
IP ₃	Third Order Intercept Point 2-Tone@ 37dBm/Tone, 1MHz Spacing	dBm		+50	
H	Harmonics @Pout=100W	dBc		-25	
Spur	Spurious Signal	dBc		-70	-60
V _{AC}	Operation Voltage (1-phase, 50Hz/60Hz)	VAC	100		240
P _D	Power Consumption @ Pout=100W	Watt			500

Mechanical Specification

Parameters	Value	Unit
Dimensions (W x H x D) without Handle	482.6 x 87 x 465 (19 x 3.5 x 18)	Mm (inch)
RF In/Out Connectors	N Female	-
AC Interface Connector	EN60320 C14	-
Weight	15	kg
Cooling (Built in FAN)	Built-in forced air-cooling system	

Environmental Characteristics

Parameters	Specifications	Remark
Operating Ambient Temperature	0°C to +50°C	
Storage Temperature	-40°C to +85°C	
Relative Humidity non-condensing	95%	

Protection

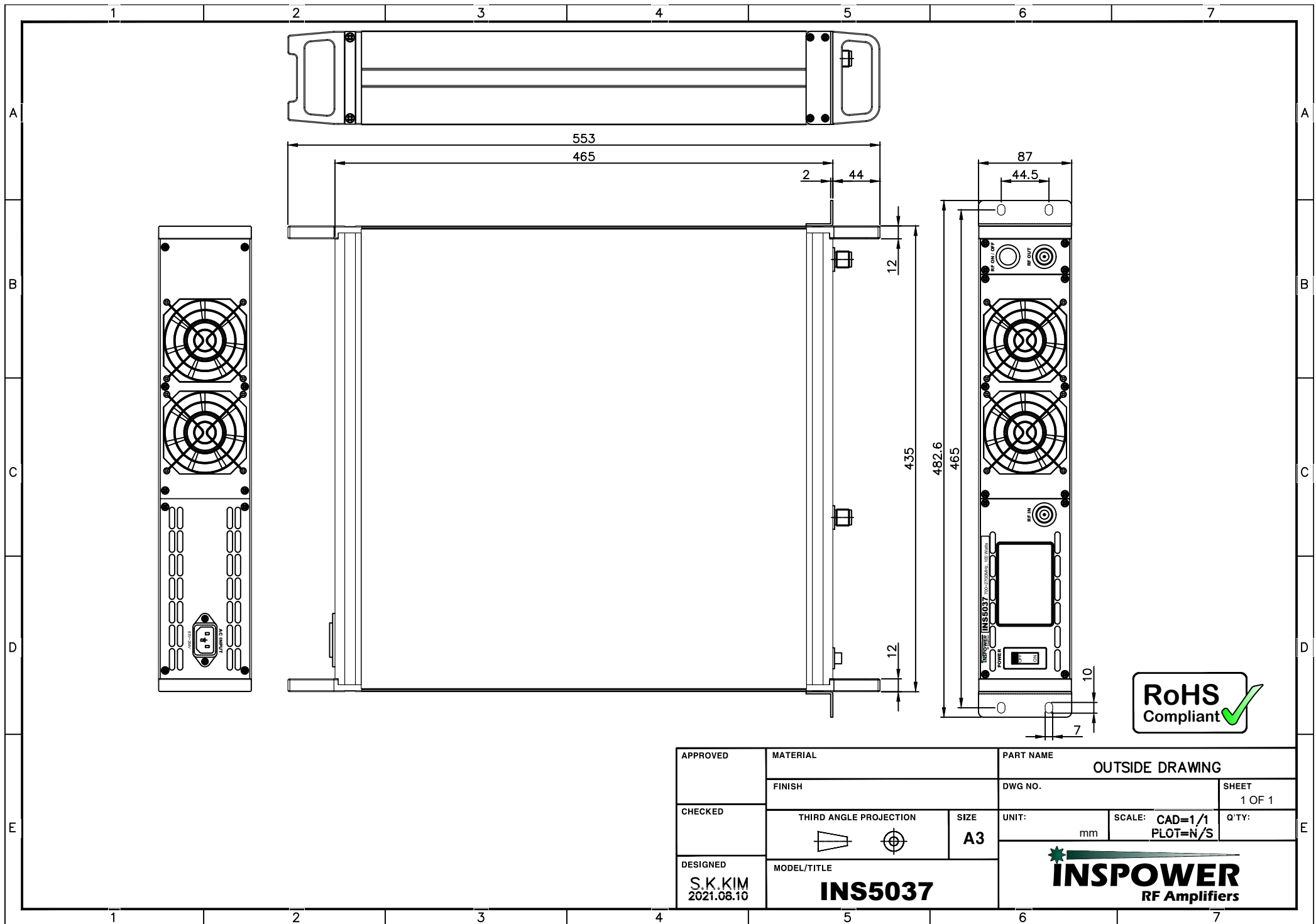
Item	Specifications for Activation	Remark
Input Overdrive	+10dBm Max	
Load VSWR @ POUT = 100W	∞ :1	
Thermal Shutdown	50°C ambient	

System Standard Feature

- RF On/Off Switch
- AC Input: 1-phase
- Handles and Rackmount Bracket

LCD Display

- RF On/Off Status
- Temperature Monitor
- Current Monitor
- High Temperature Alarm



APPROVED	MATERIAL	PART NAME	
	FINISH	OUTSIDE DRAWING	
CHECKED	THIRD ANGLE PROJECTION	DWG NO.	SHEET
			1 OF 1
DESIGNED	MODEL/TITLE	UNIT:	SCALE: CAD=1/1
S.K.KIM	INS5037	mm	PLOT=N/S
2021.08.10			Q'TY:
			INSPower RF Amplifiers