



TECHNICAL DATASHEET

The AMP550-50W-GaN is a 50W high gain Solid State High Power Amplifier.

This amplifier module utilizes the latest high power RF GaN transistors.

This amplifier is suitable for jamming.

Features

400-700MHz frequency range

Psat 47dBm Min

Power gain 45dB

50 ohm input/output impedance

Solid-state Class AB Broadband design

Instantaneous ultra-broadband

Small and light weight

High reliability and ruggedness

ELECTRICAL SPECIFICATIONS(T=50°C,DC Voltage= 24-32V, 50Ω System)

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL
Operating Frequency	MHz	400	-	700	F _o
Operating Bandwidth	MHz	-	300	-	BW
Peak Output Power @CW Signal	W	-	50	-	PsAT
Input Power	dBm	-	-	-	P _{IN}
Maximum Input Power @Without Damage	dBm	-	-	-	P _{IN, MAX}
Power Gain @Input Power 0dBm	dB	-	47±2	-	G _p
Gain Flatness @Input Power 0dBm	dB	-	-	±1	▲G _p
Efficiency	%	50	52	55	E _{EFF}
Harmonics 1 to N @Output Power 50W	dBc	12	13	15	H _N
Spurious Level	dBc	60	-	-	Spur
Input VSWR	dB	-	-	-	VSWR
Output VSWR	dB	-	-	2:1	VSWR
Operating Voltage	V	24	28	32	V _{DC}
Current Consumption @Output Power 50W	A	-	3.5	-	I _{DC}



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MECHANICAL SPECIFICATIONS

PARAMETER	UNIT	TYP
Mass	kg	0.35
Dimension	mm	134.9*74.4*24.5 (With connectors)
RF Connector	-	MCX Female : RF Input
		N Female : RF Output
DC Connector	-	Power Line, Male : Supply
Cooling		External Heat-sink Required

ENVIRONMENTAL SPECIFICATIONS

PARAMETER	UNIT	RATING	SYMBOL
Operating Case Temperature	°C	-20 ~ 85	T _c
Storage Temperature	°C	-40 ~ 105	T _{STG}
Relative Humidity(Non-condensing)	RH	95	%

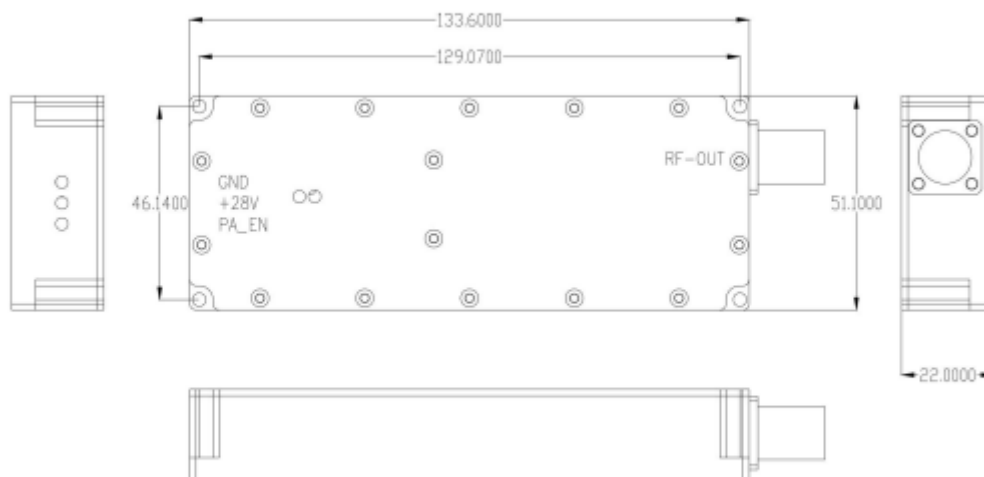
DC INTERFACE CONNECTOR – [Hybrid D-Sub 9-Pin, Male]

Pin #	Description	Specifications
1	GND	Ground
2	VDD	+28VDC
3	Enable	28V



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OUTLINE DRAWING [mm]



Side View [3]

