



P/N: AMT-SPA-0525-100_V2.0

1- Products Overview

This power amplifier is a module that be integrated in an impact case. It has ability to be controlled and send its status by a serial port (RS422-Half Duplex). Module has full protection against over VSWR, over temperature, and reverse input voltage and etc.

2- Specifications

Row	parameter	value			Unit
		Min	Typ	Max	
1	Frequency range	500		2500	MHz
2	Output power Saturation	50			dBm
3	Output ripple			±1.5	dB
4	Small signal gain ripple			±3	dB
5	ATT adjusting Range	0		30	dB
6	ATT adjusting Step		0.5		dB
7	Input power level (achieve saturation power)		0		dBm
8	Input return loss			-12	dB
9	Harmonics @Psat			-10	dBc
10	Spurious signals			-60	dBc
11	Operating voltage		+28		V
12	Operating current		10	13	A
13	Efficiency	27	35		%
14	Input and output RF Impedance		50		Ω

3- Mechanical specification

Row	parameter	value
1	Dimension (WxDxH)	250x140x25mm
2	Weight	1.2 Kg maximum
3	RF connector input	Type-SMA, Female
4	RF connector output	Type-N, Female
5	Power Supply & Control Connector	D-SUB (7W2)
6	Cooling	External heatsink (not supply)

4- Environmental characteristics

Row	parameter	value
1	Operating temperature	-30~+55°C
2	Non- operating temperature	-40~+75°C

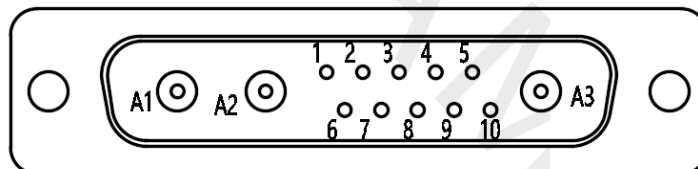
5- Protections

Row	parameter	value
1	Input overdrive	Diode limiter protection 1dB compression +15dBm
2	Reverse RF power	1≤VSWR<3 : normal operation (active output) 4≤VSWR<∞: shut down and send error
3	Temperature	T>80°C : alarming (active output) T>85°C : error (output off)
4	Short and open of RF Output	Shutdown
5	Over current	Shutdown
6	Over/Under voltage	Shutdown

6- Communication interfaces

Row	parameter	value
1	RS-422	Serial management of Module
2	Interface Protocol	Reference "RS422 protocol"
3	Module Output Data	Forward & Reverse Power, Temp, Current, Voltage
4	Module Input Data	Output Desired Power, Standby, Reset, alarm level, ALC ON/OFF

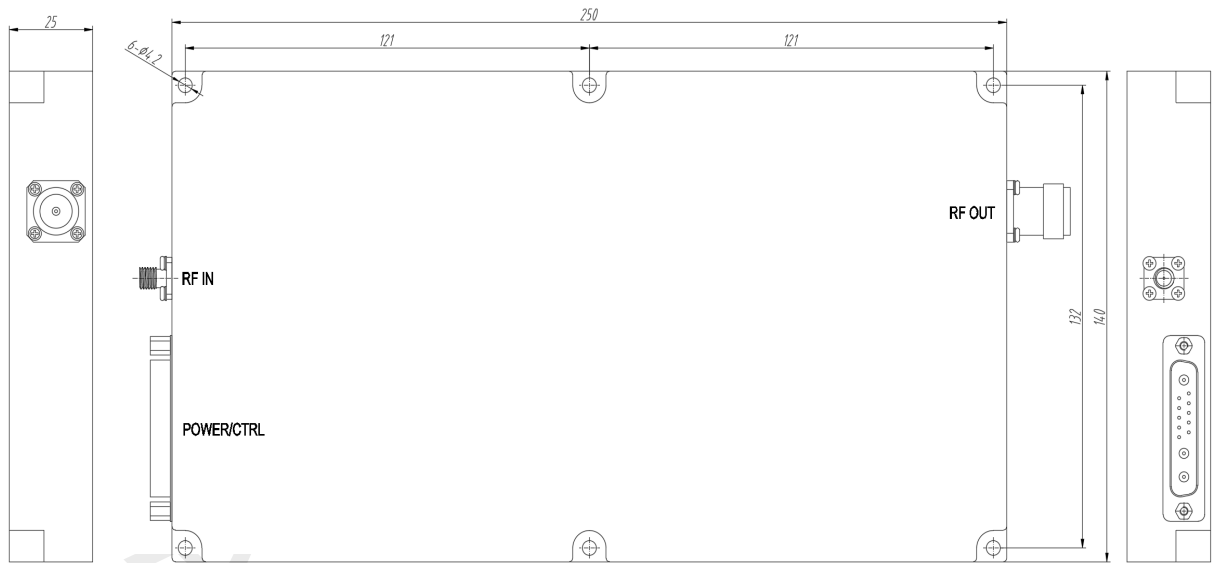
Connector of power supply and control, 13W3



Pin #	Description	Specifications
A1	VDD	+28VDC
A2	VDD	+28VDC
A3	GND	Ground
1	RX+	RxD+ RS422
2	RX-	RxD- RS422
3	TX+	TxD+ RS422
4	TX-	TxD- RS422
5	GND	Ground
6	EN	5.0V TTL High: RF Enable Low and NC: RF Disable
7~10	NC	Not connect internal



7- Dimensions



Unit: mm, Tolerances: $\pm 0.2\text{mm}$