

**P/N: AMT-SPA-1060-50M**

**1- Introduction**

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	1000		6000	MHz
2	Output power Saturation	47			dBm
3	Power gain	45	47		dB
4	Small signal gain ripple			±3.5	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 DC
12	Input and output RF Impedance		50		Ω

**3- Mechanical specification**

Row	parameter	value
1	Dimension (WxDxH)	200x130x20mm
2	Weight	1 Kg maximum
3	RF connector input	Type-SMA, Female
4	RF connector output	Type-SMA, Female
5	Power Supply and Data Connector	D-SUB (7W2)
6	Cooling	External heatsink required, not supply

**4- Environmental characteristics**

Row	parameter	value
1	Operating temperature	-20~+55°C
2	Non- operating temperature	-40~+75°C
3	Relative Humidity	0-95%

**5- Protections**

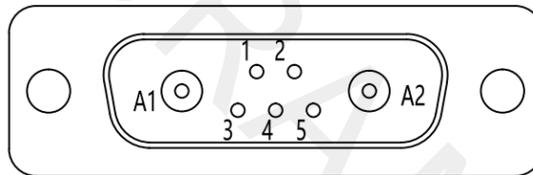
Row	parameter	value
1	Input overdrive	Diode limiter protection 1dB compression +15dBm
2	Reverse RF power	1≤VSWR<3 : normal operation (active output) 4≤VSWR<∞: shut down and send error
3	Temperature	T>80°C : alarming (active output) T>85°C : error (output off)
4	Short and open of RF Output	Shutdown
5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

**6- Communication interfaces**

Row	parameter	value
1	RS-422	Serial management of Module
2	Interface Protocol	Reference “RS422 protocol”, provide along with products

**7- Pin definitions**

Connector of power supply and data, 7W2 (DA-7PZ-2dZ)



PIN	FUNCTION	SIGNAL
A1	Power Supply	+28V
A2	GND	GND
1	RS422	RS422-TX+
2	RS422	RS422-TX-
3	RS422	RS422-RX+
4	RS422	RS422-RX-
5	GND	GND



8- Dimensions



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