



**P/N: AMT-SPA-4450-10**

**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 (RS485-Half Duplex). The gain of amplifier can be controlled by a digital attenuator via RS485. Module has full protection against over VSWR, over temperature, and reverse input voltage and etc.

**1. Technique Specifications**

Parameter	Value
Frequency range	4.4-5.0 GHz
Signal type	CW/Pulse
Output power Saturation	40 dBm Min.
Input power (output reach 40dBm)	0±3 dBm
Output power in State of Standby	-120 dBm Max.
Attenuator adjusting Range	0~30 dB
Attenuator adjusting step	0.5 dB
Input return loss	<-16 dB Max.
Accuracy of power measurement	±1.2 dB
Harmonics @ 10W	-30 dBc
Spurious signals	-60 dBc
Operating voltage	+28V
Operating current	1.2A

**2. Mechanical Specification**

Parameter	Value
Dimension (WxDxH)	130x65x18mm
Weight	0.4 Kg maximum
RF connector input	Type-SMA, Female
RF connector output	Type-SMA, Female
Data & Power Connector	J30J-9ZK
Cooling	External heatsink, not supply

**4- Environmental characteristics**

Parameter	Value
Operating temperature	-40~+65°C
Non- operating temperature	-45~+85°C

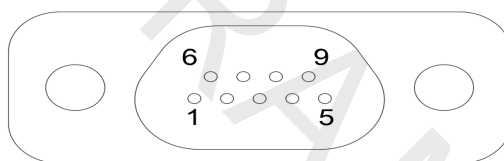
### 5- Protections

Parameter	Value
Input overdrive	Diode limiter protection 1dB compression +15dBm
Reverse RF power	1≤VSWR<3 : normal operation (active output) 4≤VSWR<∞: Interrupt function and send error (Output off)
Temperature	T>80°C : alarming (active output) T>85°C : error (Output off)
Short and open of RF Output	Shutdown
Over operating current	Shutdown

### 6- Communication interfaces

Parameter	Value
RS-485	Serial management of Module
Interface Protocol	Reference “RS485 protocol”
Module Output Data	Forward & Reverse Power, Temp, Current, Voltage
Module Input Data	Standby, Reset, alarm level, attenuator value

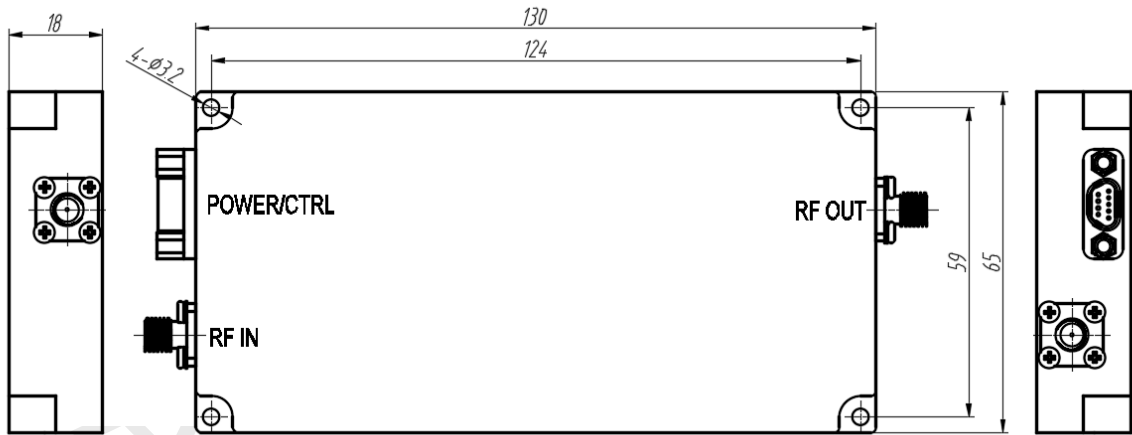
### Connector of power supply and control, J30J-9ZK



PIN	FUNCTION	SIGNAL
1	Power Supply	+28V
2	GND	Ground
3	RS485-A	RS485 communication
4	RS485-B	RS485 communication
5	GND	Ground of RS485
6	Power Supply	+28V
7	GND	Ground
8	RF Enable	5.0V or 3.3V TTL High: RF Enable Low or NC: RF Disable
9	GND	Ground



7- Outline(mm)



Dimensions, Unit: mm, Tolerances:  $\pm 0.2$ mm