

## P/N: AMT-SPA-2527-80

### 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-Full Duplex). Module has full protection against over VSWR, over temperature, and etc.

### 2- Specifications

| Row | parameter                     | value                       |
|-----|-------------------------------|-----------------------------|
| 1   | Frequency range               | 2500-2700MHz                |
| 2   | Signal type                   | CW, FM, AM, FSK, QPSK, OFDM |
| 3   | Output power Saturation       | >49dBm (CW)                 |
| 4   | Output ripple                 | ±1dB                        |
| 5   | Power adjusting Range         | 0.25dB                      |
| 6   | Input power level             | 0dBm                        |
| 7   | Input return loss             | -12dB                       |
| 8   | Harmonics                     | -30dBc                      |
| 9   | Spurious signals              | -60dBc                      |
| 10  | Operating voltage             | +28V DC                     |
| 11  | Efficiency                    | >38%                        |
| 12  | Input and output RF Impedance | 50Ω                         |

### 3- Mechanical specification

| Row | parameter              | value                         |
|-----|------------------------|-------------------------------|
| 1   | Dimension (WxDxH)      | 160x100x20mm                  |
| 2   | Weight                 | 0.6 Kg maximum                |
| 3   | RF connector input     | Type-SMA, Female              |
| 4   | RF connector output    | Type-SMA, Female              |
| 5   | Data & Power Connector | In one Connector (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 |

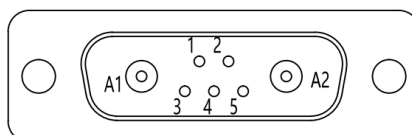
### 5- Protections

| Row | parameter                   | value                       |
|-----|-----------------------------|-----------------------------|
| 1   | Input overdrive             | Diode limiter protection    |
| 2   | Reverse RF power            | VSWR>4 : error (output off) |
| 3   | Temperature                 | T>85°C : error (output off) |
| 4   | Short and open of RF Output | 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 |
| 4   | Module Input Data  | Output Desired Power, Standby, Reset.  |

Connector of power supply and control, 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       |

## 7- Dimensions

