

Satellite Communication Series SSPA 卫星通信 SSPA 系列  
C Band 3KW Outdoor GaN SSPA C 波段 3KW 户外型固态功率放大器

## 产品特性 Product Features

- 工作频率范围 Frequency Coverage: 5.8GHz-6.5GHz
- 输出功率范围 Output Power Range: 3KW
- 基于氮化镓的极高线性度及高能效 Extreme GaN Linearity and Efficiency
- 稳定性高、可靠性高、寿命长 High Stability, High Reliability, and Long Life

| 电气特性 Electrical Characteristics |                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------|
| 工作频率 Operating Frequency        | 5.8GHz-6.5GHz                                                                         |
| 饱和输出功率 Output Power (Psat)      | ≥3000W                                                                                |
| 线性输出功率 Output Power(PLinear)    | 1500W                                                                                 |
| 增益 Gain                         | ≥77dB                                                                                 |
| 增益变化 Gain Variation             | ≤1dB p-p@40MHz; 3dB p-p@full band                                                     |
| 增益稳定度 Gain Stability            | ≤±0.35dB/24h at constant temperature & drive level                                    |
| 增益调节范围 Gain Adjustment Range    | 30dB, 0.5dB step                                                                      |
| 杂散 Spurious                     | ≤-60dBc                                                                               |
| 谐波 Harmonic                     | ≤-80dBc(with filter); ≤-30dBc (without filter)                                        |
| 输入驻波 Input VSWR                 | ≤1.3:1                                                                                |
| 输出驻波 Output VSWR                | ≤1.3:1                                                                                |
| 三阶互调 Third Order IMD            | ≤-25dBc@3dB back-off from Psat, 2 equal carriers 5MHz apart                           |
| 调幅调相变换 AM/PM Conversion         | 2°/dB Max.@PLinear                                                                    |
| 群时延 Group Delay                 | 0.25ns/MHz Linear Max; 0.05ns/MHz <sup>2</sup> parabolic max.;<br>2ns p-p ripple max. |
| 噪声功率密度 Noise Power Density      | ≤-145dBW/4kHz@Receive Band(3.7~4.2GHz)                                                |
|                                 | ≤-70dBW/4kHz@Transmit Band                                                            |
| 供电 Supply Power                 | 220VAC(±20%); 47-63Hz                                                                 |
| 功耗 Power Consumption            | 12KW                                                                                  |
| 射频输出监视器 RF Out Monitor          | -50dBc Typical                                                                        |

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|                                    |                                                      |
|------------------------------------|------------------------------------------------------|
| 射频输入/出接口 RF I/O Interface          | N-Female/WR137 Grooved                               |
| 射频输出监视器接口 RF Out Monitor Interface | N-K                                                  |
| 供电接口 Power Supply Interface        | Y50DX10-1204                                         |
| M&C 接口 M&C Interface               | Y50X10-0810JI(RS422/RS485/RS232); YW120E01(Ethernet) |

**环境特性 Environmental Characteristics**

|                            |                                            |
|----------------------------|--------------------------------------------|
| 工作温度 Operating Temperature | -40~+55°C                                  |
| 贮存温度 Storage Temperature   | -40~+75°C                                  |
| 湿度 Humidity                | 100%, Condensing                           |
| 高度 Altitude                | 10,000' AMSL, de-rated 2°C/1,000 from AMSL |

**监控功能 Monitor & Control Functions**

|               |                                                                                                   |
|---------------|---------------------------------------------------------------------------------------------------|
| 监控 Monitor    | 输出功率、反射功率、模块温度、模块电流等<br>Output Power、Reflect Power、Module Temperature、Module Current, etc.        |
| 控制 Control    | 电源开/关、射频开/关、上行功率控制、增益调节等<br>Power On/Off、RF On/Off、Uplink Power Control、Gain Adjustment, etc.     |
| 保护 Protection | 过温保护、过流保护、过反射保护<br>Over Temperature Protection、Over Current Protection、Over Reflection Protection |