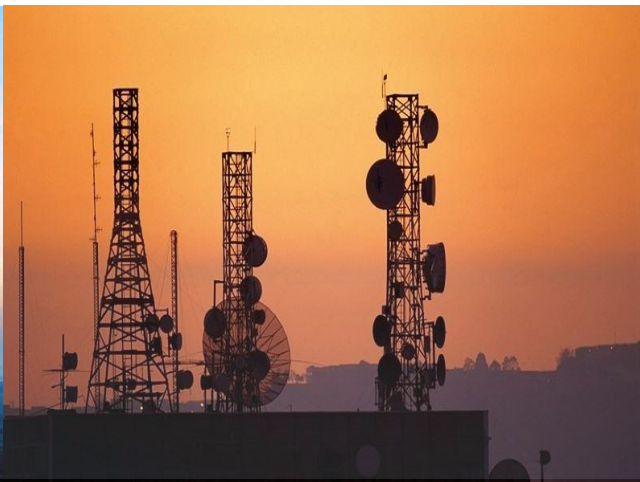


# Solid State Power Amplifier Introduction

## 2020



## About Us

Gtemcell group of companies was funded in 2011 by a group of experienced veterans in RF/ Microwave industry for over 20 years individually, It is dedicated to providing state-of-the-art technology and uniformly high quality microwave assemblies to customers worldwide for both communication and test markets. It is our commitment to provide customers high reliability and field proven products to fulfill or exceed customer's needs and expectation. With the effort of our highly skilled R&D team, we have developed several product lines covering frequency from DC to 50GHz.

## Product Lines

- SSPAs
- High power SSPAs

## Advantages

- Fast delivery from prototype : 6~8 weeks
- Cost-effective solutions
- Raw material expertise selection
- High quality and reliability
- Custom design available

# Solid State Power Amplifiers

Gtemcell offers end-to-end RF & Microwave solutions for customers worldwide across a wide range of markets. The solid state power amplifier extends a broad frequency range from 0.5MHz to 50GHz and provides output power up to kilowatts. Our staff intent to use the cutting-edge technology of RF power amplification to produce rugged, power efficient, and cost-effective solutions . It is our priority to design and deliver high quality products which address customer system and business requirements.

As a professional Hi-tech manufacture, quality first is our commitment to customers. In order to make sure that our products is highly qualified, we continue to invest heavily in purchasing specialized test equipment and all our products are 100% ESS tested. The strict incoming material inspection process guarantees all used material are qualified and all our products are guaranteed for 2 years after shipped from factory.

Gtemcell's SSPAs solutions cover from low power PA modules to high power 19" rack amplifiers .



**Communication SSPA**

Telecommunication.



**Radar SSPA**

Commercial & Military

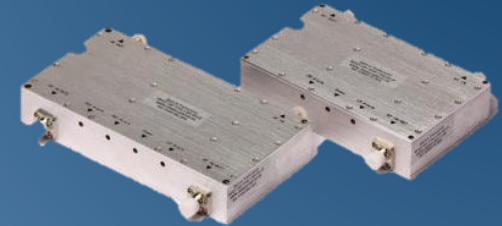


**Broadband SSPA**

Electronic Warfare  
EMC Test  
RCS Test  
Radar Simulator

## Up to 6GHz Amplifiers

| Frequency Range(MHz) | Psat(W) | Gain(dB) | Gain Flatness(dB) | Protection | Voltage(V) | Dynamic Current(A) |
|----------------------|---------|----------|-------------------|------------|------------|--------------------|
| 1~150                | 100     | 45       | $\pm 2$           | Optional   | +28        | 9                  |
| 20~520               | 100     | 45       | $\pm 2$           | Optional   | +28        | 8                  |
| 20~950               | 50      | 42       | $\pm 2$           | Optional   | +28        | 6                  |
| 100~950              | 50      | 42       | $\pm 2$           | Optional   | +28        | 6                  |
| 500~950              | 100     | 45       | $\pm 2$           | Optional   | +28        | 9                  |
| 100~1000             | 100     | 45       | $\pm 2$           | Optional   | +40        | 8                  |
| 500~1500             | 100     | 45       | $\pm 2$           | Optional   | +32        | 10                 |
| 500~2500             | 25      | 40       | $\pm 2$           | Optional   | +36        | 3                  |
| 500~2500             | 50      | 42       | $\pm 2$           | Optional   | +28        | 9                  |
| 1100~2900            | 25      | 40       | $\pm 2$           | Optional   | +28        | 4                  |
| 1100~2900            | 50      | 42       | $\pm 2$           | Optional   | +40        | 7                  |
| 2500~6000            | 25      | 40       | $\pm 2$           | Optional   | +28        | 4                  |
| 2500~6000            | 50      | 42       | $\pm 2$           | Optional   | +28        | 10                 |



Note : Many more solutions available in different frequencies and power levels, please ask for inquiry.

## Up to 6GHz Amplifiers

### Customized Amplifiers

| Frequency Range(MHz) | Psat(W) | Gain(dB) | Gain Flatness(dB) | Protection | Voltage(V) | Dynamic Current(A) |
|----------------------|---------|----------|-------------------|------------|------------|--------------------|
| 1.6~30               | 150     | 50       | ±1                | Optional   | +28        | 15                 |
| 1.6~30               | 250     | 50       | ±1                | Optional   | +48        | 15                 |
| 1.6~30               | 500     | 57       | ±2                | Optional   | +48        | 25                 |
| 30~88                | 100     | 50       | ±1                | Optional   | +28        | 8.5                |
| 30~88                | 500     | 50       | ±1                | Optional   | +48        | 30                 |
| 0.5~100              | 100     | 50       | ±1.5              | Optional   | +28        | 9.5                |
| 0.5~100              | 200     | 50       | ±1.5              | Optional   | +28        | 18                 |
| 118~137              | 200     | 53       | ±0.5              | Optional   | +28        | 15                 |
| 108~175              | 250     | 50       | ±1                | Optional   | +28        | 22                 |
| 1~200                | 100     | 45       | ±1.5              | Optional   | +28        | 11                 |
| 10~500               | 150     | 50       | ±1.5              | Optional   | +28        | 18                 |
| 30~512               | 100     | 50       | ±1.5              | Optional   | +28        | 10                 |
| 30~512               | 200     | 50       | ±1.5              | Optional   | +28        | 22                 |
| 225~400              | 250     | 50       | ±1                | Optional   | +28        | 24                 |
| 100~500              | 500     | 57       | ±2                | Optional   | +48        | 25                 |
| 470~860              | 150     | 50       | ±2                | Optional   | +28        | 15                 |
| 100~1000             | 100     | 50       | ±2                | Optional   | +48        | 9                  |
| 500~1000             | 500     | 57       | ±2                | Optional   | +48        | 28                 |
| 500~1500             | 200     | 53       | ±2                | Optional   | +32        | 16.5               |
| 1000~2000            | 100     | 47       | ±2                | Optional   | +28        | 8                  |
| 1000~3000            | 100     | 50       | ±2                | Optional   | +28        | 16                 |
| 2500~6000            | 50      | 47       | ±2                | Optional   | +28        | 14                 |
| 4000~6000            | 50      | 47       | ±2                | Optional   | +28        | 9                  |



Note : Many more solutions available in different frequencies and power levels, please ask for inquiry.



## Up to 6GHz Amplifiers



### 2GHz~6GHz 100W

- Input signal: pulsed and CW compatible
- Application: test & measurement(-40~+50°C)
- Psat.:  $\geq 53\text{dBm}$
- Gain:  $\geq 65\text{dB}$
- Small signal gain:  $\geq 80\text{dB} \pm 1.5\text{dB}$
- Power efficiency:  $\geq 20\%$
- ALC accuracy:  $\pm 0.5\text{dB}$
- Second harmonic:  $\geq 15\text{dBc}$
- Control interface: local control

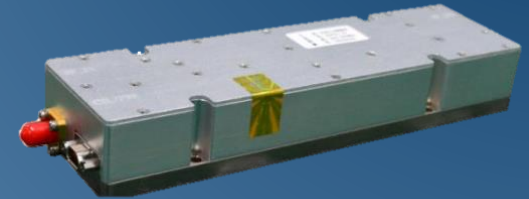


### 2.5GHz~6.5GHz 100W

- Input signal: pulsed and CW compatible
- Application: test & measurement(-40~+50°C)
- Psat.:  $\geq 51\text{dBm}$
- Gain:  $\geq 45\text{dB}$
- Small signal gain:  $\geq 60\text{dB} \pm 1.5\text{dB}$
- Power efficiency:  $\geq 20\%$
- ALC accuracy:  $\pm 0.5\text{dB}$
- Second harmonic:  $\geq 40\text{dBc}$
- Control interface: local control& Ethernet control&RS422 remote control

## Up to 18GHz Amplifiers

| Frequency Range(MHz) | Gain(dB) | Psat (W) | Power Supply (V) |
|----------------------|----------|----------|------------------|
| 2700~6200            | 50       | 50       | +28              |
| 2500~6500            | 45       | 100      | +28              |
| 7900~8400            | 45       | 40       | +12              |
| 8000~12000           | 50       | 100      | +28              |
| 8000~12000           | 50       | 200      | +28              |
| 8000~12000           | 50       | 400      | +28              |
| 13500~14500          | 50       | 50       | +24              |
| 13750~14500          | 45       | 25       | +28              |
| 13750~14500          | 50       | 40       | +24              |
| 13750~15350          | 50       | 120      | +28              |
| 1000~18000           | 65       | 10       | +28              |
| 2000~18000           | 37       | 5        | +28              |
| 6000~18000           | 55       | 50       | +28              |
| 6000~18000           | 60       | 120      | +28              |
| 6000~18000           | 60       | 200      | +28              |
| 10000~18000          | 50       | 100      | +28              |
| 10000~18000          | 50       | 200      | +28              |
| 12000~18000          | 50       | 100      | +28              |
| 12000~18000          | 50       | 200      | +28              |



Note : Many more solutions available in different frequencies and power levels, please ask for inquiry.

# Contact Us

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