

## 0.4 ~ 2GHz 200W GaN High Power Solid State Power Amplifier Module

### FEATURES

- Freq : 0.4 ~ 2 GHz Full Band
- P<sub>sat</sub> : 53dBm, typ.
- Pin : +8 ~ +10dBm

### ELECTRICAL SPECIFICATIONS (@+50V VDC, 25°C)

| Parameter                           | Min   | Typ   | Max   | Unit | Remark |
|-------------------------------------|-------|-------|-------|------|--------|
| Operating Frequency                 | 0.4   |       | 2     | GHz  |        |
| Power Output, Psat                  | +52   | +53   |       | dBm  |        |
| Input Power                         | +8    |       | +10   | dBm  |        |
| Power Gain                          |       | 45    |       | dB   |        |
| Input VSWR                          |       |       | 2.0:1 |      |        |
| Output VSWR                         |       | 2.0:1 | 2.5:1 |      |        |
| Non-harmonic Spurious               |       | -60   |       | dBc  |        |
| 2 <sup>nd</sup> Harmonic            |       | -10   | -8    | dBc  |        |
| Efficiency                          |       | 40    |       | %    |        |
| Operating DC Voltage                | +49.5 | +50.0 | +50.5 | Volt |        |
| Operating DC Current, @ Pout +53dBm |       | 10    |       | Amp  |        |

NOTE - .

### MECHANICAL SPECIFICATION

| Parameter               | Value                                       | Units |
|-------------------------|---|-------|
| Dimensions              | 250 x 145 x 25, typ.                        | mm    |
| RF Connectors In/Out    | Input: SMA Female ; Output: N Female        |       |
| DC & Control Connectors | D-Sub 25-pin                                |       |
| Cooling                 | External Heatsink is required (by customer) |       |

### ENVIRONMENTAL CHARACTERISTICS

| Parameter                            | Min | Typ | Max | Unit | Remark          |
|--------------------------------------|-----|-----|-----|------|-----------------|
| Operating Temperature <sup>***</sup> | -40 |     | +65 | °C   | Baseplate(Case) |
| Storage Temperature                  | -40 |     | +85 | °C   |                 |
| Relative humidity (non-condensing)   |     |     | 95  | %    |                 |

NOTE – \*\*\*For the better MTBF of long-time operation, Transcom strongly suggest the customer's system to equip with sufficient heatsink for keeping the amplifier baseplate(case) temp below the maximum specs temp(+65C)

### RF ON / OFF, PROTECTIONS, MONITORING

| Parameter                           | Value                             | Remark         |
|-------------------------------------|-----------------------------------|----------------|
| RF On/ Off                          | Enable: TTL 'H', Disable: TTL 'L' |                |
| Input Power                         | +10dBm, max.                      | Without damage |
| Temperature Monitor, Vdet out(temp) | Vt + 500mV, ~10mV/C               |                |
| Current Monitor, Vdet out(current)  | Option                            | customized     |
| Over Current Protection             | Option                            | customized     |
| Over Temperature Auto-Shutdown      | Option                            | customized     |
| Customized Monitoring/Protection    | Option                            | customized     |

**INTERFACE CONNECTORS**
**D-Sub, 25-Pin**

|       |       |             |       |       |
|-------|-------|-------------|-------|-------|
| 1↵    | 2↵    | 3↵          | 4↵    | 5↵    |
| +VDD↵ | +VDD↵ | +VDD↵       | +VDD↵ | +VDD↵ |
| 6↵    | 7↵    | 8↵          | 9↵    | 10↵   |
| +VDD↵ | +VDD↵ | NC↵         | TTL↵  | NC↵   |
| 11↵   | 12↵   | 13↵         | 14↵   | 15↵   |
| NC↵   | NC↵   | Vdet, temp↵ | GND↵  | GND↵  |
| 16↵   | 17↵   | 18↵         | 19↵   | 20↵   |
| GND↵  | GND↵  | GND↵        | GND↵  | GND↵  |
| 21↵   | 22↵   | 23↵         | 24↵   | 25↵   |
| GND↵  | NC↵   | NC↵         | NC↵   | NC↵   |

**MECHANICAL DRAWING, unit: mm**
