

Description

The SS5K-02A System, in which state of the GaN technology is used. It is designed for the high-power radar application at the frequency of 2800MHz-3500MHz. It includes the sub system are parallelized for secure operation in the event of a system fault condition, also.

It supports military and commercial applications

Features

- 5KW Pulsed Transmitter combined by 20 HPAs
- Wide Bandwidths (2800-3500MHz)
- DIN 7-16 Output
- Forced Air Cooling

Applications

- Airport Surveillance Radar
- Defense Radar
- Industrial and Scientific System
- Weather Radar
- Driving High Power TWTA



ELECTRICAL SPECIFICATIONS (RF Output) :

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---|-------------------|------|------|-------|------|
| Operating Frequency | BW | 2800 | | 3500 | MHz |
| Rated Output Power (Pulsed Peak Power) | P _{sat} | 5000 | | 6000 | W |
| Pulse Width | PW | 5 | | 120 | us |
| Duty Cycle | P _{duty} | 0.35 | | 3.5 | % |
| Pulse Frequency Range | P _{frq} | 70 | | 10000 | Hz |
| Pulse Rise / Fall Time | | | | | |
| Pulse to Pulse Output Power Variation @duty cycle max | P _{PVAR} | | | 0.5 | dB |
| Power variation during pulse @PW=120us @duty max | P _{var} | | - | 0.5 | dB |
| Small Signal Gain | G _{SS} | 67 | | | dB |
| Harmonics | H _{arms} | | | -50 | dBc |
| Spurious | SPUR _S | | | -50 | dBc |
| RF Output monitoring port | P _{cup} | | -67 | | dB |

ELECTRICAL SPECIFICATIONS (RF Input) :

| Parameter | Symbol | Min | Typ. | Max | Unit |
|----------------------|-------------|-----|------|-----|------|
| Rated Input Power | P_{in} | | 0 | | dBm |
| Maximal Input Power | P_{inmax} | | | 5 | dBm |
| Gain adjustment | G_{adj} | 30 | | | dB |
| Gain adjustment step | | | 0.5 | | dB |

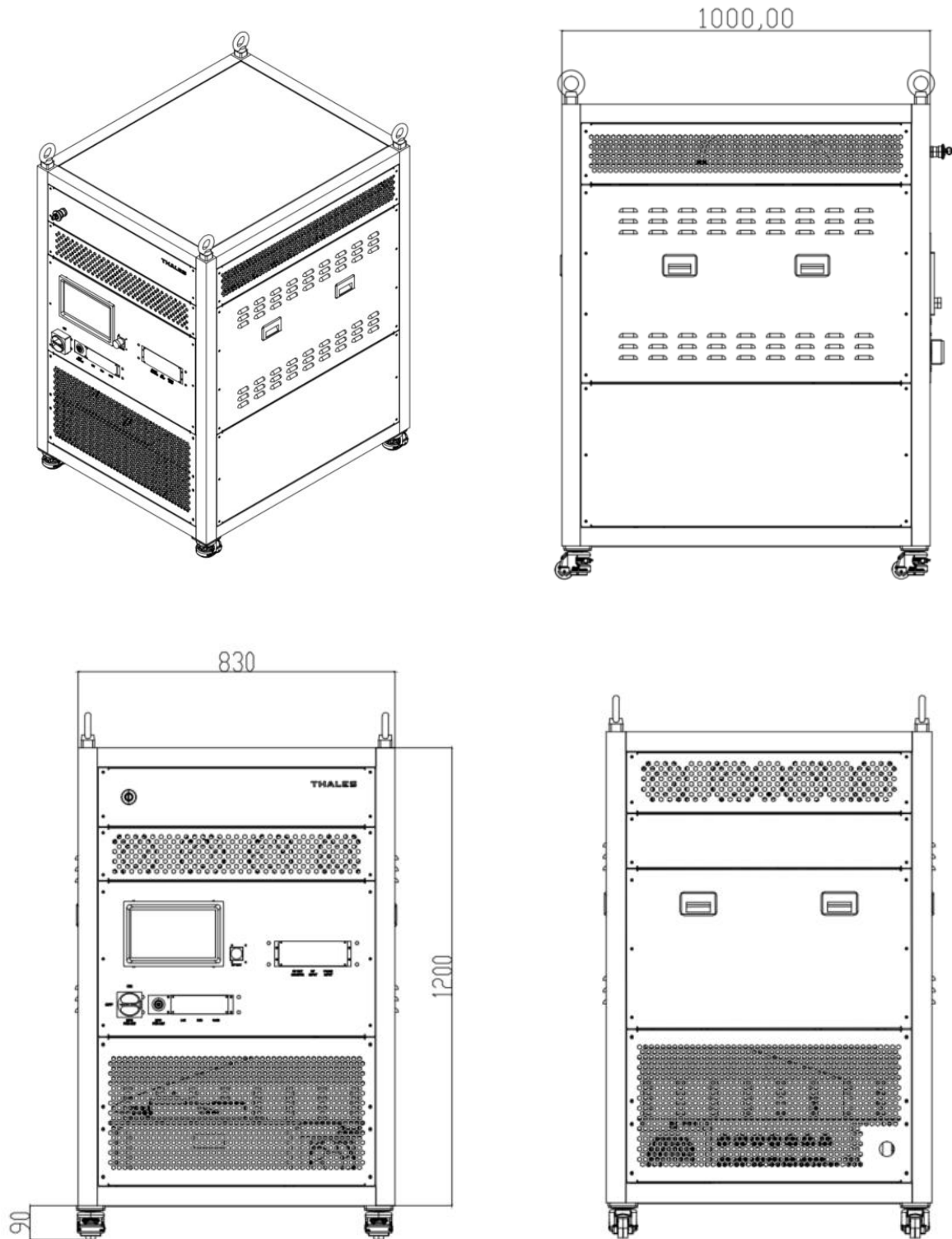
GENERAL SPECIFICATIONS :

| Parameter | Symbol | Min | Typ. | Max | Unit |
|------------------------|----------|--------------------|------|------|-----------|
| Main Input Voltage | V_{ac} | 230VAC 1Phase 50Hz | | | V_{eff} |
| Main power @ 3.5% duty | P_{ac} | | 600 | 2300 | Watt |
| Operating Temperature | OPT | 0 | | 50 | °C |
| Acoustic noise | | | | 60 | dBa |

MECHANICAL SPECIFICATIONS :

| Parameter | Symbol | Min | Typ. | Max | Unit |
|---------------------------------|--------|--|------|-----|------|
| Size | | 830 * 1000 * 1330 | | | mm |
| Weight | | | 300 | | kg |
| RF Output Connector | | 7-16 (socket) | | | |
| RF Input Connector | | SMA (socket) | | | |
| Pulse modulator Input Connector | | BNC (TTL level 1 = pulse) (socket) | | | |
| Output RF monitoring | | SMA (socket) | | | |

OUTLINE DRAWING :



FUNCTION :

- Internal pulse modulator (TTL level Internal pulse modulator (TTL level))
- Output RF Power Level Monitor / Option : Input RF Power Level Monitor
- Output VSWR Protection @ Operating Fast back-off at VSWR 4:1
- Temperature Monitor of Main Amplifier & Shut Down
- Input Voltage Monitor & Shut Down
- Current Monitor of Main Amplifier & Shut Down
- Fan Status Monitor
- Communication Interface @ RS-232, Ethernet
- Internal pulse modulator (TTL level)
- Output RF Power Level Monitor / Option : Input RF Power Level Monitor
- Output VSWR Protection @ Operating Fast back-off at VSWR 4:1