STS300/400C
Antenna Mount SSPA

Super Compact 300W / 400W C-Band BUC GaN

The STS300/400C Band series is powered by GaN technology and is one of the smallest, lightweight efficient units available today.

With best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analogue interfaces.

Designed for portable, mobile and VSAT on the move applications. Its small size and weight allows and high thermal efficiency, which makes it a most economical solution for fixed VSAT applications.

OPTIONS
- Internal 10MHz Reference clock
- Available in various C-Band frequency options
- Automated Level Control (ALC) option

FEATURES
- Extremely high power density - Up to 400W Psat in 19Kg 47 x 34.5 x 20 cms.
- Filed replaceable power supply
- Superior RF performance:
  - Phase noise 8-10dB better than IESS308/309
  - Psat up to 56dBm
  - Spurious below –60dBc
  - Wide dynamic range of Gain control
- RF overdrive protection
- Input and Output True RMS power detection
- Configuration via RS-232 serial console, packet protocol RS-485 - User friendly HTTP based GUI and SNMP optional
- 48VDC isolated power supply
- Redundant ready with no external controller
- Field upgradeable software
- Status LED
## OUTLINE

### Parameter | 300W | 400W
--- | --- | ---
**RF Performance**
- RF Frequency Range - Available in/switched: 5.85-6.425GHz (other frequency options available)
- IF Frequency Range: 950-1525MHz
- LO Frequency: 4.9GHz
- Conversion: Single Conversion; non-inverting
- Saturated Power: 55dBm/300W typ
- Linear power: 52dBm min
- Conversion Gain: 75dB min, 77dB typ
- Gain Flatness: +/-1.5dB max over full band; +/0.5dB max over any 40MHz
- Gain Stability over temperature: +/-1.5dB over full temperature range
- Gain Stability over input power: 3dB typ 4dB max from 10dB back off to rated power
- Gain Control: 20dB min dynamic range
- External Reference Frequency: 10MHz multiplexed with IF In
- External Reference Required Phase Noise: -130dBc/Hz @ 100Hz, -140dBc/Hz @ 1kHz, -150dBc/Hz @ 10kHz, -155dBc/Hz @ 100kHz
- Up-Converter Phase Noise: -68dBc/Hz @ 100Hz, -80dBc/Hz @ 1kHz, -90dBc/Hz @ 10kHz, -95dBc/Hz @ 100kHz, -115dBc/Hz @ 1MHz
- Linearity: 2 tone IMD Spectral Re-growth: -25dBc at F linear, -30dBc for OP5 at 1.5xsymbol rate at F linear.
- Noise Power Density: Transmit Band: -85dBm/Hz max, Receive Band: -150dBm/Hz max
- Output Spurious: Non-signal related: -60dBc, Signal related: -55dBc

### Power
- AC Voltage Range: 190-265VAC 50-60Hz auto-ranging PFC
- Power Consumption at rated power: 1400W, 1600W
- Power Consumption at 3 dB back off: 1100W, 1200W

### Mechanical
- Size: 47 x 34.5 x 19.6 cms
- Weight: 19Kg
- Cooling: Forced Air
- Operating temperature: -40°C to +55°C
- Relative Humidity: Up to 100% condensing

### Interfaces
- IF Input Connector: N-type female
- RF Output Connector: CPR137 grooved, N-type female
- AC Power In: MS3112E12-3P, MS3112E14-19S
- M&C Interface-Serial, Analog and Ethernet: MS3112E14-19P

### Redundant Interface
- MS3112E14-19P

### Part Numbering Information
- AC Power Supply: AC1