



Super High Power Density 300W-500W C Band BUC / SSPA

Smaller, lighter and more Powerful, the AntBUC® series allows significant high-power BUC / SSPA size and weight reduction and at the same time substantially improves thermal efficiency, which leads to higher reliability and longer MTBF. That's why SpacePath Communications offers 3 years warranty for this product line!

The 300W to 500W C-Band powered by GaN technology AntBUC® series are very compact, light and extremely powerful. Weighing only 30KG at 500W output power, this new C-band product family is the most powerful and feature rich for its size: up to 500W at saturated power.

This series features best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analog Interfaces. The remarkably compact size and high thermal efficiency results in overall system size and cost reduction making it the ideal candidate for mobile and fixed VSAT applications.

Features

- Extremely High Power Density
 - Up to 500W Psat in 47 x 34 x 25 cms
- Superior RF performance
 - Superior Phase Noise: 8 dB better than IESS308/309 recommendation
 - Spurious emission below -60 dBc
 - Wide range Gain Control
 - Highest Linearity at small back-off
- RF Overdrive Protection
- Built In Output Isolator provides full output VSWR Protection
- Redundancy ready with no external controller required
- Status LED
- Available in different frequency options
 - Super-extended 5.85-6.725GHz
 - Palapa 6.425-6.725GHz
 - Insat 6.725-7.025GHz
- Extensive M&C capability
 - Serial: RS 232 & RS 485
 - Ethernet: embedded Web browser (HTTP) & SNMPv3 support
- Input and output True RMS power detection
- Field upgradable software

Options

- Internal 10MHz Reference clock
- Automatic Level Control (ALC)
- Antenna Mounting Kit
- 1:1 and 1:2 Redundancy Kit
- Remote Control Panel

| RF Parameters | | | | | |
|---|---------------------|---|----------------------|---------------------|----------------|
| Output Frequency Band, GHz | | 5.85-6.425GHz / 5.85-6.725GHz; other options available | | | |
| Input L Band Frequencies, MHz | | 950-1525MHz / 950-1825MHz | | | |
| Conversion Gain, dB | | 75 minimum, 77 typical | | | |
| Gain Flatness, dB | | +/-1 typical +/-1.5 maximum over full band +/-0.4 maximum over any 40MHz | | | |
| Gain Stability, dB | | +/-1.5 maximum over full temperature range | | | |
| Gain Control, dB | | 20dB minimum dynamic range | | | |
| Linearity at Pout=Plin: 2 tone IMD Spectral Regrowth | | -25dBc max -30dBc for QPSK at 1 x symbol rate | | | |
| Input Impedance, Ohm | | 50Ohm | | | |
| Input/Output VSWR | | 1.4:1 / 1.3:1 | | | |
| Noise Power Density, dBm/Hz | | -70 in Transmit Band, -145 in Receive Band | | | |
| Spurious Emission dBc; Non-signal related / Signal related (at Plin) | | -60 / -55 max | | | |
| AM/PM conversion at Plinear, °/dB | | 1.0 maximum | | | |
| Group Delay | | Ripple 1 nsec p-p max over any 40MHz band | | | |
| BUC Parameters | | | | | |
| LO Frequency, MHz | | 4900MHz | | | |
| Type of Conversion | | Single conversion, non-inverting | | | |
| External 10MHz | | Over IF L Band cable with multiplexing | | | |
| Phase Noise, dBc/Hz | | -70 @ 100Hz; -80 @ 1kHz; -90 @ 10kHz; -95 @ 100kHz; -115 @ 1MHz | | | |
| Power | | | | | |
| AC Voltage Range | | 190-265V AC 50-60Hz PFC | | | |
| Mechanical & Environmental | | | | | |
| Size | | 47 x 34 x 25 cms | | | |
| Weight | | 30KG (65lbs) | | | |
| Cooling | | Forced Air | | | |
| Operating Temperature / Relative Humidity | | -40°C to +55°C / Up to 100% condensing | | | |
| Interfaces | | | | | |
| IF Input Connector | | N-type Female | | | |
| RF Output Connector | | CPR137 Grooved | | | |
| AC Power In | | 3 pin MS style | | | |
| RS485 – Ethernet – SNMPv3 | | MS3112E14-19S | | | |
| SpacePath Part Number | Output Power (W) | Prated (dBm / W) | Plinear (dBm / W) | P Cons at Prated | P Cons at Plin |
| STS300C | 300W | 55 / 300 | 52 / 150 | 1700W | 1500W |
| STS400C | 400W | 56 / 400 | 53 / 200 | 1900W | 1600W |
| STS500C | 500W | 57 / 500 | 54 / 250 | 2000W | 1650W |

Specifications are subject to change without notice