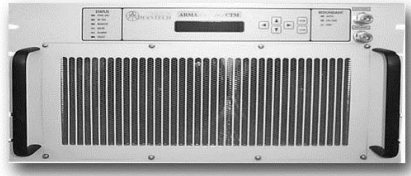




SSPA
SSPB (BUC)

ARMAG-K
ARMUG-K

SG series
SG series



Features

- Output power of 300W or 400W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485
- Built-in Forward and Reflected precision power metering
- Output RF calibrated Sample Port
- Redundant Systems shipped fully tested
- Infinite VSWR protection with automatic high reflected power shutdown
- Detachable power supply module
- 19" Rackmount, 5RU, 28" deep
- CE marking

Options

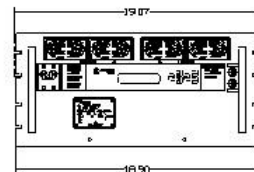
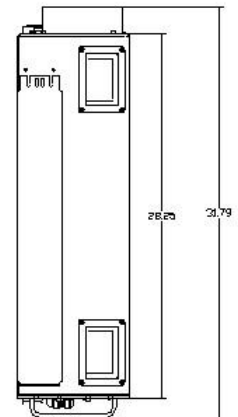
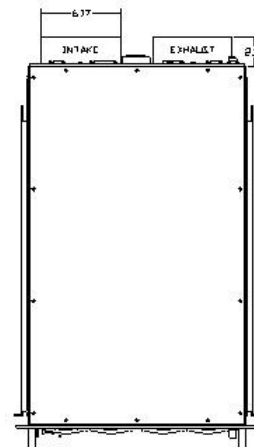
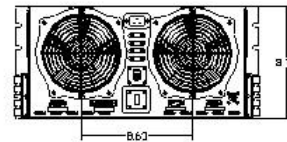
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

Accessories

- Mounting Slides
- Remote M&C panel with optional SNMP
- Flexible and rigid waveguides

Overview

The new Super Compact SG Series Ku-Band SSPA/BUCs provide highest power density in the industry. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience.



Outline

300W to 400W Ku-Band Rackmount SSPA/ SSPB SapphireBlu™ GaN Technology

| General Specifications | | | |
|--|--|--|---------------------------------------|
| Output Power | 300W | | 400W |
| P_{SAT} (nominal) | +55.0 dBm | | +56.0 dBm |
| P_{LINEAR} | +51.0 dBm | | +52.0 dBm |
| Operating Frequency | Ku 14.0 – 14.500 GHz | KX | 13.75 – 14.5 GHz |
| L-Band input (BUC) | Ku 950 – 1450 MHz | KX | 950 – 1700 MHz |
| Gain | SSPA 67 dB min | SSPB (BUC) | 75 dB min |
| Gain adjustment range | 20 dB in 0.1 dB steps | | |
| Gain flatness over full band | SSPA 2dB p-p max | SSPB (BUC) | 4 dB p-p max |
| Gain slope over 40 MHz | ± 0.3 dB max | SSPB (BUC) | ± 0.5 dB max |
| Gain variation over temperature | ± 1.5 dB max | | |
| Input Impedance and VSWR | 50 Ω | SSPA 1.3:1 | SSPB (BUC) 1.4:1 |
| Output VSWR | 1.3:1 | | |
| Noise power density | -75 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (10.95GHz – 12.75 GHz) | | |
| Spurious at $P_{LINEAR 1}$ | SSPA: -65 dBc max | SSPB (BUC): | -55 dBc max |
| Harmonics | -50 dBc at P_{LINEAR} | | |
| AM/PM conversion | 1°/dB at P_{LINEAR} | | |
| Third order intermod. (two tones) | -25 dBc two signal 5 MHz apart at P_{LINEAR} relative to total power | | |
| Spectral Regrowth | -30 dBc at P_{LINEAR} (for QPSK at 1.5 x symbol rate and OQPSK at 1,0 x symbol rate) | | |
| Group delay | Ripple 1 nsec p-p max over any 40 MHz band | | |
| Residual AM Noise | 0 – 10 kHz | -45 dBc | |
| | 10 kHz – 500 kHz | -20 (1.25 + log F) dBc F = Frequency in kHz | |
| | 500 kHz – 1 MHz | -80 dBc | |
| SSPB (BUC) | | | |
| Local Oscillator freq. | Ku –13.050 GHz | KX | – 12.800 GHz |
| Internal Reference frequency (optional) | 10 MHz | Aging/day | ±2 × 10 ⁻¹⁰ |
| | | Aging/year | ±5 × 10 ⁻⁸ |
| | | Stability | ±2 × 10 ⁻⁸ over temp range |
| Phase Noise | -53 dBc/Hz at 10 kHz | -83 dBc/Hz at 10 KHz | |
| | -63 dBc/Hz at 100Hz | -93 dBc/Hz at 100 kHz | |
| | -73 dBc/Hz at 1000Hz | | |
| External Reference Frequency phase noise (max) | 10 MHz | | |
| | -120 dBc/Hz at 10Hz | -155 dBc/Hz at 10 kHz | |
| | -135 dBc/Hz at 100Hz | -160 dBc/Hz at 100 kHz | |
| | -150 dBc/Hz at 1000Hz | | |
| Weight & Dimensions | | | |
| Dimension | 19" rackmount 5U high , 28" deep | | |
| Weight | 99 lbs (44kg) | | |
| AC input voltage | 220V AC ± 20% (47 – 63 Hz) PF 0.95 min | | |
| Power consumption (typical) | 2100W at P_{LINEAR} | | 2300W at P_{LINEAR} |
| | 2900W at P_{SAT} | | 3100W at P_{SAT} |
| Interfaces | Input (RF or L-Band) | N type female | AC line IEC 320 Inlet |
| | Output Sample Port | N type female | RF output WR75 |
| | RS485/RS232 | DB9 | Ethernet RJ45 |
| Environmental | Temperature | Operating 0°C to +50 °C Storage -55°C to +85 °C | |
| | Humidity | 5% to 95% non condensing | |
| | Altitude | 10,000' AMSL, de-rated by 2 °C/1000' from AMSL | |

**NORTH AMERICA
USA**
Tel: +1 703 659 9796
Fax: +1 703 635 2212
info.usa@advantechwireless.com

CANADA
Tel: +1 514 420 0045
Fax: +1 514 420 0073
info.canada@advantechwireless.com

**EUROPE
UNITED KINGDOM**
Tel: +44 1480 357 600
Fax: +44 1480 357 601
info.uk@advantechwireless.com

RUSSIA & CIS
Tel: +7 495 971 59 18
info.russia@advantechwireless.com

INDIA
Tel: +91 33 2415 5922
info.india@advantechwireless.com

SOUTH AMERICA
Tel: +1 514 420 0045
Fax: +1 514 420 0073
info.latam@advantechwireless.com

BRAZIL
Tel: +55 11 3054 5701
Fax: +55 11 3054 5701
info.brazil@advantechwireless.com

An ISO 9001 : 2008 Company



Ref.: PB-SSPBg-Ku-Rack-300W-400W-16298