



SSPA AWMA-C TT series
SSPB (BUC) SSPBM-C TT series



Features

- Full range of output power of 350W/400W/500W or 600W in a compact single package
- High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or Ethernet port
- 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
- Weatherproof construction
- CE marking

Options

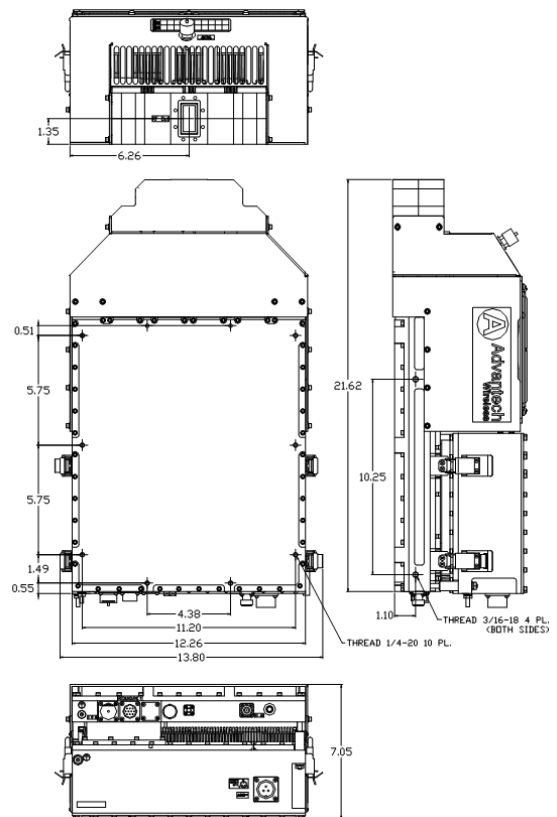
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

Accessories

- Mounting kits
- External Harmonics Reject Filter (-65dBc)
- Remote M&C panel with optional SNMP
- Handheld terminal
- Flexible and rigid waveguides
- Mounting frames
- High power terminations

Overview

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



Outline

350W/ 400W/600W C-Band Hubmount SapphireBlu™ SSPA/ SSPB GaN Technology

| General Specifications | | | | |
|--|--|---|----------------------------------|-----------------------|
| Output Power | 350W | 400W | 500W | 600W |
| P_{SAT} (typ.) | +55.5 dBm (nominal) | +56.0 dBm (nominal) | +57.0 dBm (nominal) | +57.8 dBm (nominal) |
| P_{LINEAR} | +51.5 dBm | +52.0 dBm | +53.0 dBm | +54.0 dBm |
| Operating Frequency | 5.85 – 6.425 GHz / Optional 5.85 – 6.725 GHz | | | |
| L-Band input (BUC) | 950 – 1525 MHz / Optional 950 – 1825 MHz | | | |
| Gain | SSPA 67 dB min | | SSPB (BUC) 77 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 | -70 dBm/Hz in Transmit Band, -145 dBm/Hz in Receive Band (3.4GHz – 4.2 GHz) | | | |
| Spurious at $P_{LINEAR 1}$ | SSPA: -65 dBc max | | SSPB (BUC): -55 dBc max | |
| Harmonics | -35 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. | 4.9 GHz | | | |
| Internal Reference frequency (optional) | 10 MHz | Aging/day | ±2 ⁻¹⁰ | |
| | | Aging/year | ±5 ⁻⁸ | |
| | | Stability | ±2 ⁻⁸ over temp range | |
| Phase Noise | -73 dBc/Hz at 100 Hz | | | |
| | -78 dBc/Hz at 1 kHz | | | |
| | -88 dBc/Hz at 10 kHz | | | |
| | -98 dBc/Hz at 100 kHz | | | |
| 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 | | | | |
| Dimensions (L x W x H) | 21.6" x 12.26" x 7.05" (549x311x179mm) | | | |
| Weight | 57.3 lbs. (26 kg) | | | |
| AC input voltage | 220V AC ± 20% (47 – 63 Hz) | | Power Factor 0.95 min. | |
| Power consumption (nominal) | 1550W at P_{LINEAR} | | 1900W at P_{LINEAR} | 2200W at P_{LINEAR} |
| | 2000W at P_{SAT} | | 2400W at P_{SAT} | 2400W at P_{SAT} |
| Interfaces | Input (RF or L-Band) | N type female | AC line MS3102 type | |
| | Output Sample Port | N type female | RF output CPR137 | |
| | RS485/RS232/Ethernet | MS3112 type | | |
| Environmental | Temperature | Operating -30°C to +55°C | | |
| | | Storage -55°C to +85°C | | |
| | Humidity | 100% condensing | | |
| | Altitude | 10,000' AMSL, derated by 2 °C/1000' from AMSL | | |

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