

400W C-Band BUC/SSPB/SSPA SuperWideband™ 5.850 - 7.025GHz Second Generation GaN Technology

Super Compact TT Series. SapphireBlu™

SSPA	AWMg-C	TT series
SSPB (BUC)	SSPBMg-C	TT series

Features

- Output power of 400W over wide C-band in a compact single package (in subbands)
- UltraLinear™ extra high linearity up to saturation
- Perfect for Multi Carrier, Multi Transponder Uplinking
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or Ethernet port
- Built-in Forward precision powering 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

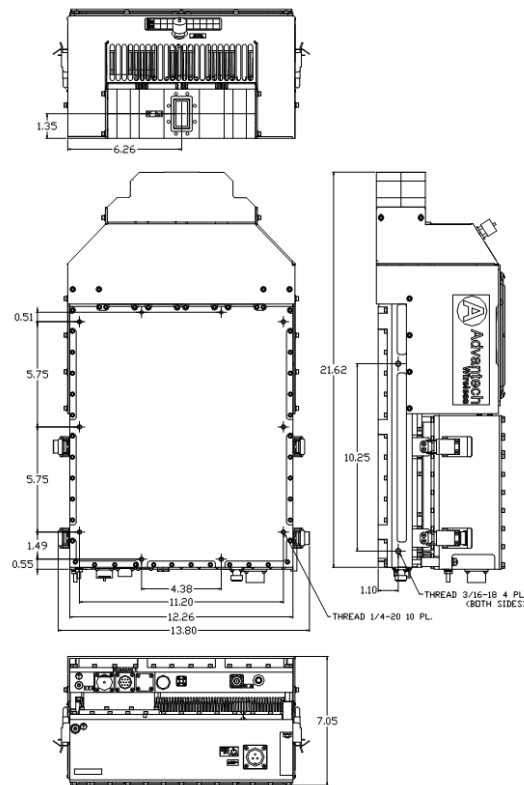


Options

- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port with SNMP V3.0, Webinterface, Telnet, CL

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 linear power density in the industry. Combined with the traditional Advantech Wireless features, these new series of BUCs provide the ultimate in performance and convenience for Multichannel, Multitransponder transmission for HDTV and DTH.



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Technical Specifications			
Output Power	400W		
P_{SAT} (typ.) Subband dependend, factory preset in Subband B1 or Subband B2	B1 (or B2) :+56 dBm (nominal) B2 (or B1) :+54 dBm (nominal) B1: 5.850-6.425 GHz B2: 6.725-7.025 GHz		
P_{LINEAR}	B1 (or B2) :+53 dBm B2 (or B1) :+ 50 dBm		
Operating Frequency	5.850 – 7.025 GHz covered in two subbands B1: 5.85-6.425 GHz; B2: 6.725-7.025 GHz		
L-Band input (BUC)	950 – 2125 MHz		
Gain	SSPA 67dB min	SSPB (BUC)	75dB min
Gain adjustment range	20 dB in 0.1 dB steps		
Gain flatness over 500 MHz	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, -135 dBm/Hz in Receive Band (3.4GHz – 4.2 GHz)		
Spurious at P_{LINEAR}	SSPA: -65 dBc max	SSPB (BUC):	-55 dBc max
Harmonics	- 35 dBc at P_{LINEAR}		
AM/PM conversion	1.0°/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 $\pm 2 \times 10^{-10}$	Aging/year $\pm 5 \times 10^{-8}$ Stability $\pm 2 \times 10^{-8}$ over temp range
Phase Noise	-63 dBc/Hz at 100 Hz -73 dBc/Hz at 1 kHz -88 dBc/Hz at 10 kHz -108 dBc/Hz at 100 kHz	Integrated SSB Phase Noise < 1.5 deg. rms @ P_{LINEAR}	
External Reference Frequency phase noise (max)	10 MHz -120 dBc/Hz at 10Hz -135 dBc/Hz at 100Hz	-150 dBc/Hz at 1000Hz -155 dBc/Hz at 10 kHz	-160 dBc/Hz at 100 kHz
Weight & Dimensions			
Dimensions (L x W x H)	21.6" x 12.26" x 7.05" (549x311x179 mm)		
Weight	57.3 lbs. (26 kg)		
AC input voltage	220V AC ± 20% (47 – 63 Hz) Power Factor 0.95 min.		
Power consumption (nominal)	1500W at P_{LINEAR}	2000W at P_{SAT}	
Interfaces	Input (RF or L-Band): N type (f)	AC line: MS3102 type	RS485/RS232/Ethernet: MS3112 type
	Output Sample Port: N type (f)	RF output: CPR137	
Environmental	Temperature	Operating -30°C to +55 °C	Option 1 -40°C to +55 °C Option 2 -50°C to +65 °C
		Storage	-55°C to +85 °C
	Humidity	100% condensing	
	Altitude	10,000' AMSL, de-rated by 2 °C/1000' from AMSL	

Ref.: PB-SSPBMg-2G-C-400W-SWB-18144

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