

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



NEXT GENERATION GaN TECHNOLOGY

Features

- Output Power of 400W in a compact single package
- Very High linearity
- Redundant ready with no external controller
- Full M&C capability via RS232, RS485 or Ethernet port (optional)
- 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

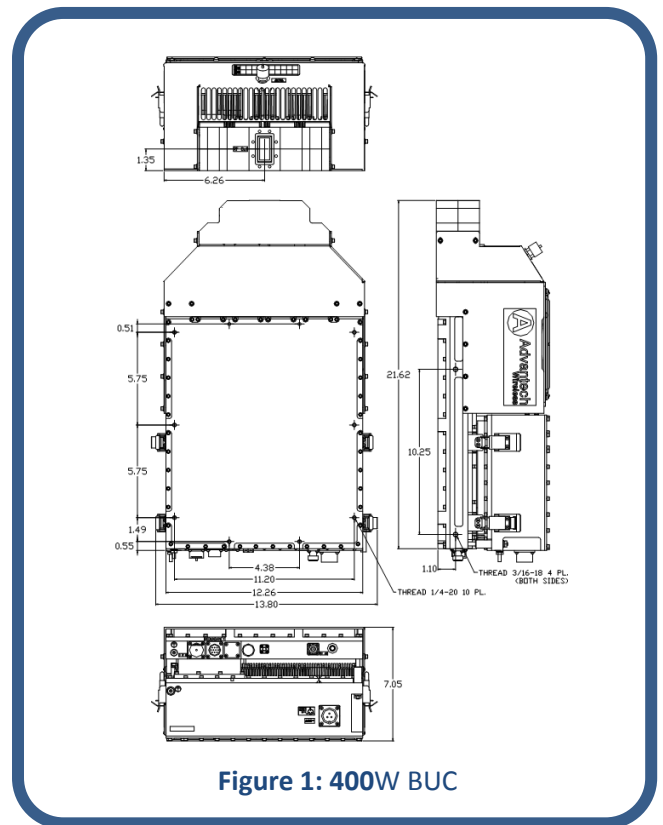
- 1:1 or 1:2 Redundant configuration
- L-Band input (SSPB/BUC operation)
- Internal/External reference with auto-sensing
- Ethernet port

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.



General Specifications

Output power	400W		
P _{SAT} (typ.)	+56.0 dBm (nominal)		
PLINEAR is the power at which the IMD=-25 dBc for two CW signals 5 MHz apart and the spectral regrowth is <-30 dBc @ 1.0 x symbol rate for a single QPSK/OQPSK/8PSK signal	+54.0dBm		
Operating Frequency	5.85 – 6.425 GHz / optional 5.85 - 6.725 GHz		
L-Band input (BUC)	950 – 1525 MHz / 950 - 1825 MHz		
Gain	SSPA 67dB min	SSPB (BUC)	75dB 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}	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	±2 ⁻¹⁰
		Aging/year	±5 ⁻⁸
		Stability	±2 ⁻⁸ over temp range
Phase Noise	-75 dBc/Hz at 100Hz		
	-83 dBc/Hz at 1kHz		
	-93 dBc/Hz at 10 kHz		
	-110 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}		
	1650W 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	
		Optional -50°C to +55 °C	
		Storage -55°C to +85 °C	
	Humidity	100% condensing	
Altitude	10,000' AMSL, derated by 2 °C/1000' from AMSL		

Specifications are subject to change without notice

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