

200W / 300W / 400W C-Band GaN SSPA/SSPB

The new **Genesis-Series** of C-band SSPA/SSPBs from Advantech Wireless Technologies epitomizes the latest in hardware and software technologies, making it the most feature-rich satcom SSPA in the industry. Available in 200W, 300W and 400W C-band, the Genesis-Series SSPA/SSPB delivers the high-end features discriminating users have come to expect.



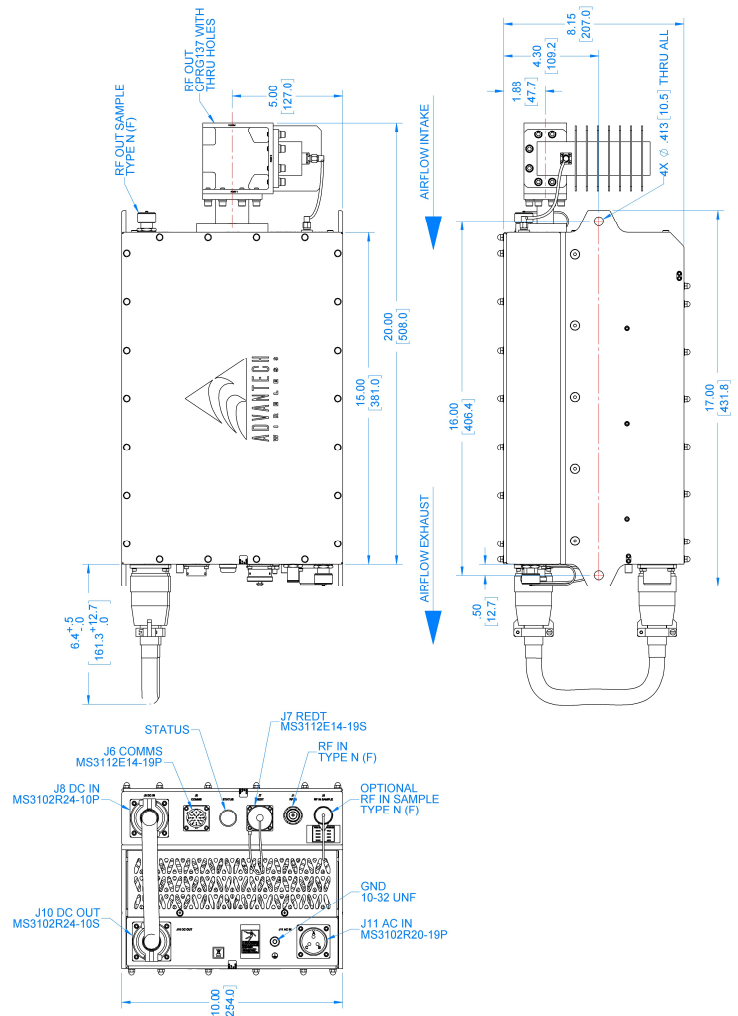
400W C-band GaN SSPB

Features

- 200W, 300W and 400W in a single package
- SSPA or SSPB option
- Soft-fail ready
- Internal/External reference with autosense
- Field replaceable power supply module
- Redundant ready with no external controller
- Full featured embedded web server
- Secure SNMPv3 interface (10/100 Ethernet)
- Serial Protocol over RS232/RS485/UDP
- Discrete Alarm Interface
- Status LED indicator
- Forward power monitoring
- True RMS power detection
- Calibrated Output RF sample port
- Field replaceable fan assembly
- Weatherproof construction
- 20dB gain adjustment (minimum)

Options

- 1:1, 1:2, N+1 redundant configurations
- Calibrated Input RF sample port



200W / 300W / 400W C-Band GaN SSPA/SSPB

General Specifications

	200W	300W	400W
SSPA			
Operating Frequency	Standard: 5.85 - 6.425 GHz Extended: 5.85 - 6.725 GHz		
Output Power P _{LINEAR}	+50dBm	+52dBm	+53dBm
	P _{LINEAR} 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 tested with a single QPSK, 2MS/s SR, 0.35 roll-off		
Gain (with 0dB attenuation)	75 dB		
Gain adjustment range	20 dB in 0.1 dB steps		
Gain flatness over full band	2dB p-p max (SSPA only)		
Gain slope over 40 MHz	± 0.3 dB max (SSPA only)		
Gain variation over temperature	± 1.5 dB max		
Input Impedance and VSWR	50 Ω 1.3:1 (SSPA only)		
Output VSWR	1.3:1		
Signal Related Spurious at P _{LINEAR 1}	-65 dBc max (SSPA only)		
Harmonics	-50 dBc @ P _{LINEAR}		
AM/PM conversion	<1°/dB P _{LINEAR}		
Third order IMD (two tones)	-25 dBc two signal 5 MHz apart at P _{LINEAR}		
Group delay	Ripple 1 nsec p-p max over any 40 MHz band		
SSPB (BUC)			
L-Band input (BUC)	Standard: 950-1525 MHz Extended: 950 - 1825 MHz		
Gain flatness over full band	4dB p-p max (SSPB only)		
Gain slope over 40 MHz	± 0.5 dB max (SSPB only)		
Input Impedance and VSWR	50 Ω 1.5:1 (SSPB only)		
Signal Related Spurious at P _{LINEAR 1}	-55 dBc max (SSPB only)		
Local Oscillator freq.	4.9 GHz		
Internal Reference frequency	Aging/day: ±1 x 10 ⁻⁹ Aging/year: ±10 x 10 ⁻⁸ Stability: ±1 x 10 ⁻⁷ over temp range		
Max Phase Noise	-37 dBc/Hz at 10Hz -67 dBc/Hz at 100Hz	-77 dBc/Hz at 1 kHz -87 dBc/Hz at 10 kHz	-97 dBc/Hz at 100 kHz -107 dBc/Hz at 1 MHz
External Reference Input Power	10 MHz -5dBm to +5dBm		
Frequency phase noise (max)	-120 dBc/Hz at 10Hz -140 dBc/Hz at 100Hz	-155 dBc/Hz at 1 kHz -160 dBc/Hz at 10 kHz	-165 dBc/Hz at 100 kHz

Mechanical, Environmental, Power

Dimensions	L x W x H: 20" x 25" x 8.4" (508 x 635 x 213.36 mm)		
Weight	46 lbs. (20.8 kg)		
AC input voltage	190 – 265 VAC (47-63 Hz) 0.95 Power Factor @ 220VAC		
Power consumption at P_{Linear}	900W	1700W	1800W
Interfaces	Input (RF or L-Band): N type female Output Sample Port: N type female Interface Port: MS3112 type (See outline for details) AC line: MS3102 type (See outline for details) RF output: CPRG137		
Environmental	IP65 Compliance Temperature: Operating: -40°C to +55 °C Storage: -55°C to +85 °C Humidity: 100% condensing Altitude: 10,000' AMSL, de-rated by 2 °C/1000' from AMSL		

Note: specifications subject to change without notice.

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