

This compact yet powerful 3200W outdoor SSPA/SSPB harnesses advanced Gen III GaN technology, delivering exceptional broadband RF performance, high efficiency, and outstanding linearity and reliability for applications such as multicarrier, multi-transponder DTH contribution or distribution, CBH, HTS VSAT Hub

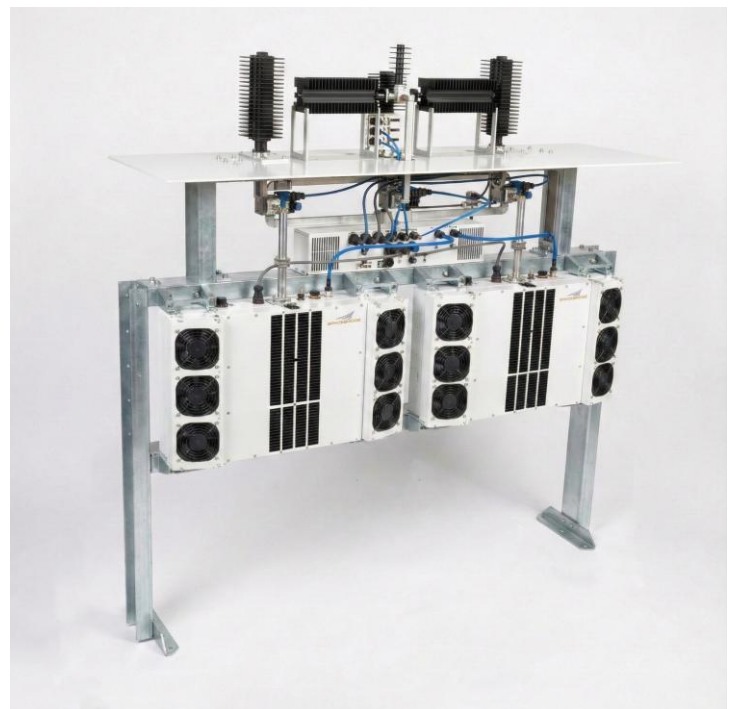
Key Features

- Built-in 2:1 and 1:1 Redundancy, no External Redundancy Controller required
- Phase Combining/Fail Safe four 1000W units to achieve 3200W / 1000W P_{sat}
- High Linearity, efficiency and MTBF
- Built-in High Precision true RMS Output Power Meter
- Web Interface, SNMP support
- Output Overdrive Protection
- Output VSWR Protection
- Thermal shutdown

Options

- SSPA or SSPB
- Standard (CS, 5.850-6.425 GHz), Extended (CX, 5.850-6.725 GHz) and Insat (CI, 6.725-7.025 GHz) bands
- Internal High-stability 10 MHz Reference
- 2U Rack mountable RCP for Phase Combining application and 2:1 or 1:1 redundancy

In addition to its exceptional performance and reliability, this device boasts a comprehensive suite of monitoring and control capabilities, easily accessible via Ethernet, serial RS232, RS485 interfaces, or dry contacts. It is the premier choice for demanding applications, specifically designed for outdoor installations, and because its ultra-linear performance offers the capability to utilize 256 APSK modulation on small (1.8m) antennas for contribution, as well as multicarrier, multi-transponder use for DTH distribution and data transmission, such as HTS/UHTS VSAT Hubs



With an IP67 ingress protection rating, the device can be mounted outdoor under the direct sun rays on an antenna post/kingpost, or on the platform behind the antenna, or inside the antenna hub, effectively eliminating the W/G RF loss commonly associated with indoor units. Additionally, it does not require air-conditioning, resulting in significant reductions in ongoing electrical costs and maintenance expenses, while often eliminating the need for nearby shelter construction

* SSPA: SBBS3200C; SSPB (BUC): SBB3200C

SBS3200C/SBB3200C 3200W C-band Outdoor Multicarrier Gen III GaN SSPA/BUC

Technical Specifications

MODELS			
	SBS3200CS/SBB3200CS	SBS3200CX/SBB3200CX	SBS3200CI/SBB3200CI
RF Frequency range	5.850-6.425 GHz	5.850-6.725 GHz	6.725-7.025 GHz
IF Frequency range*	950-1525 MHz	950-1825 MHz	1150-1450 MHz
LO Frequency*	4.9 GHz	4.9 GHz	5.575 GHz
RF CHARACTERISTICS			
P _{Sat} , Rated Output Power	With Phase Combining Single Thread	65 dBm / 3200 W min 60 dBm / 1000 W min	
P _{Lin2C} , Linear Power as defined by MIL-STD-188-164C, 2 carriers		62 dBm / 1600 W min	
Small Signal Gain		80 dB typ	
Gain Flatness over full frequency range		± 1.5 dB max	
Gain Flatness over any 40 MHz		± 0.5 dB max	
Gain Control		20 dB min dynamic range, 0.1 dB steps	
Gain Stability over full Temperature and Frequency ranges		± 1.5 dB max	
Gain stability over 24h at constant drive and temperature		0.5 dB peak-to-peak	
Linearity: IMD3			
Measured with 2 equal tones 5 MHz apart		-25 dBc at total power = P _{Lin2C} -30 dBc at 6 dB total power back-off from P _{Sat}	
External Reference Frequency*		10 MHz, sinusoidal, multiplexed with L-band (IF In)	
External Reference Level*		0 dBm, ±5 dB	
External Reference SSB Phase Noise, max*		-110 dBc/Hz @ 10 Hz; -125 dBc/Hz @ 100 Hz; -140 dBc/Hz @ 1 kHz; -155 dBc/Hz @ 10 kHz; -165 dBc/Hz @ 100 kHz; -165 dBc/Hz @ 1 MHz;	
Up-Converter SSB Phase Noise, max* (not present if SSPA)		-54 dBc/Hz @ 10 Hz; -72 dBc/Hz @ 100 Hz; -80 dBc/Hz @ 1 kHz; -90 dBc/Hz @ 10 kHz; -100 dBc/Hz @ 100 kHz; -112 dBc/Hz @ 1 MHz;	
Integrated Phase Noise		1° RMS max	
Output Spurious: In-band		< -60 dBc	
Output Spurious: Out-of-band		Complies with ETSI EN 301 428/430 and MIL-STD188-164C	
Harmonics at P _{Lin2C}		< -60 dBc	
AM/PM Conversion		2.0°/dB max at P _{Lin1C}	
Noise Power Density		Tx < - 80 dBm/Hz; Rx < - 155 dBm/Hz	
Output RF Power Monitor		-50 dB, 1dB peak-to-peak flatness over frequency range, calibration chart provided	
INTERFACES		ENVIRONMENTAL	
IF Input connector	50 Ohms N-type (F)	Cooling systems	Forced Air
Input VSWR	1.4:1 max	Temperature	
RF Output Connector	CPR137 grooved, threaded 10-32 UNF	Operating	-40°C to +55°C
Output VSWR	1.3:1 max	Storage	-55°C to +85°C
RF Sample	50 Ohms N-type (F)	Relative Humidity	100%, up to 4" of rain precipitation/hour
AC Power In	MS3102R14S-7P	Altitude	10,000 ft (3,000 m) AMSL
M&C Interfaces: Ethernet, Serial RS-232, RS-422 & RS-485, Form-C	MS3112E14-19P	Adiabatic Derating (Altitude Temperature Derating Factor)	5°C / 1000 m
Redundancy	MS3112E14-19S	Environmental	IP67 Rating
POWER**		MECHANICAL**	
AC Voltage Range	195-265 VAC	Dimensions (LxWxH)	28.63 x 19.00 x 6.49 in 727.2 x 482.6 x 164.8 mm
Frequency Range	47-63 Hz	Weight	99 lb (45 kg)
Power Consumption at P _{Sat}	3600 W		

* Parameters marked with asterisk related to the BUC option
** Per single thread