



GaN DBS BUC/SSPA

200W

New Generation of GaN based BUCs/SSPAs for broadcast and satellite communications

Using GaN technology, our new GaN DBS BUC/SSPA deliver outstanding performance in compact packaging and is intended for operation outdoors.

High Efficiency and Reliability

We have incorporated a built-in lineariser to provide maximum linear power and an output isolator for protection against reflected power. As well as built-in up converter plus internal reference (option) for BUC version.

Multicarrier Operation & Modularity

In addition to high reliability and MTBF, this product allows Multicarrier Operation with no memory effects and limited back off.

Monitoring and Control

Full M&C capability is provided via RS-485/USB (ASCII commands) and optionally via an Ethernet port (Telnet, HTTP with embedded web page or SNMP). Discrete lines for mute and turn on/off functionalities and a summary alarm (Form C relay and discrete) are used for a quick operation.



Key Features

- Super High linear power
- Multicarrier operation
- High MTBF
- Redundant configurations (1:1, 2:1, N:1)
- Weatherproof

TECHNICAL SPECIFICATIONS

ELECTRICAL

OPTIONS:

- Internal reference
- Ethernet port
- Extended temperature range: T1(-40°C, +55°C), T2(-40°C, +60°C)
- Redundant systems (1:1,2:1,N:1)
- Remote M&C Panel
- Indoor version
- SNMP

Output Power (P_{SAT})	200 W - 53 dBm (typical)
Linear Power*	160 W - 52 dBm
Input frequency range	950 MHz - 2050 MHz (BUC) / 17.3 - 18.4 GHz (SSPA)
Output frequency range	17.3 - 18.4 GHz
Gain	> 65 dB
Gain Flatness	4 dB p-p, max over full band, 1 dB p-p dB/40Mhz
Gain variation over temperature	± 1.5 dB over full operating range
Attenuation Adjustment Range	20dB in 0,25dB step
Input VSWR	$\leq 1.5:1$
Output VSWR	$\leq 1.3:1$
Phase noise (BUC)	-65 dBc/Hz at 100Hz, -75 dBc/Hz at 1kHz -85 dBc at 10kHz, -95 dBc at 100kHz
External reference frequency and phase noise (BUC)	10 MHz, -135dBc/Hz at 100Hz, -155 dBc/Hz at 1 kHz, -160 dBc/Hz at 10 kHz, 0 dBm ± 3 dB supplied via input L-band cable
Spectral Regrowth	-25 dBc @ P_{LINEAR}
Spurious	-60dBc max @ P_{LINEAR}

* For single carrier with modulation DVB-S, 4MBaud, Roll-off: 0.25, ModCod QPSK-3/4, Occupied Bandwidth 5MHz, Measured @ 1.0x symbol rate

FEATURES INCLUDED:

- Automatic Control Mode (AGC, ALC)
- Pressure window
- Output RF calibrated sample port

POWER SUPPLY

Input Voltage	90-264 VAC, 50-60 Hz
Power Consumption @ Psat	850 W

MECHANICAL & INTERFACES

Dimensions (L x W x H)	400 x 250 x 268 mm
Weight	<34 Kg
Interfaces	RF Input (L-Band + Ref Signal): N-type (f) (BUC) / SMA (f) (SSPA) RF Output: WR62 Grooved RF Sample: SMA AC Line: 3-pin Military Circular M&C: 19-pin Military Circular

MONITOR & CONTROL PARAMETERS

Remote control	RS-485 / USB
Monitor parameters	Forward & Reverse output power, Input power, Temperature, Summary alarms
Internal self protection	Temperature (>85°C), Reflected power

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature	-30° C to +55° C
Storage Temperature	-40° C to +85° C
Humidity	100%, condensing

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Information contained in this document is subject to change without notice.
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