

NEW GENERATION OF GaN BASED SSPAs/BUCs FOR BROADCAST SATCOM

Using cutting-edge **GaN technology**, the new DBS SSPA/BUC family offers outstanding performance in outdoor operations

MULTICARRIER OPERATION

No memory effects and limited back off guaranteeing **unlimited carriers**.

EFFICIENCY & RELIABILITY

Super linearity for maximum useable output power to provide customised linearisation independent of the modulation method used.

Robust performance guaranteed through individual unit testing over temperature at factory. Built-in output isolator for protection against reflected power.

Advanced packaging and cooling techniques enable the equipment to be operated in the toughest environments.

Built-in up converter plus **high stability internal reference** for BUC.

MONITORING & CONTROL

Full M&C capability through RS-485/USB (ASCII commands) or with the option of an Ethernet port (Telnet, HTTP with embedded user-friendly web page or SNMP).

Discrete lines for mute and turn on/off functions and a summary alarm (Form C relay and discrete) for speedy operation.



KEY FEATURES

- * Highly efficient
- * Super high linear power
- * Multicarrier operation
- * Superior lifetime based on GaN-tech
- * High MTBF
- * Redundant configurations (1:1, 2:1)
- * OPEX savings
- * Weatherproof
- * Compact design
- * Simple operation & maintenance



OTHER FEATURES

- * Automatic Control Mode: AGC, ALC
- * Pressure window
- * Output RF calibrated sample port

OPTIONS

- * Ethernet port
- * Extended temperature range: -40 °C, +55 °C
- * Redundant systems 1:1, 2:1, N:1
- * Indoor controller
- * Receive reject filter (external)
- * Harmonic filter (external)
- * SNMP
- * High stability internal reference

ACCESSORIES & SPARES

- * Set of fans

ELECTRICAL

Input frequency range	950 MHz - 2050 MHz (BUC) / 173 - 18.4 GHz (SSPA)
Operating frequency range	173 - 18.4 GHz
Output power ($P_{SAT (typical)}$)	53 dBm
Linear output power ($P_{LINEAR*}$)	52 dBm
Gain	>65 dB
Gain flatness	4 dB p-p, max over full band, 1 dB p-p dB / 40 MHz
Gain variation over temperature	± 1.5 dB over full operating range
Attenuation adjustment range	20 dB in 0.25 dB step
Input impedance & VSWR	≤1.5:1
Output VSWR	≤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 ref. freq. & phase noise (BUC)	10 MHz, -135 dBc/Hz at 100 Hz, -155 dBc/Hz at 1 kHz, -160 dBc/Hz at 10 kHz, 0 dBm ± 3dB supplied via input L-band cable
Spectral regrowth	-25 dBc @ $P_{LINEAR*}$
Spurious	-60 dBc max @ $P_{LINEAR*}$

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

POWER SUPPLY

Input voltage	90-264 VAC, 50-60 Hz
Power consumption @ P_{SAT}	850 W

INTERFACES & PHYSICAL

Dimensions (L x W x H)	400 x 274 x 220 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 MIL Circular M&C: 19-pin MIL Circular

MONITOR & CONTROL

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

ENVIRONMENTAL

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

TTI CONTACT

sales@ttinorte.es
www.ttinorte.com

NOTICE

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

Unless otherwise specified, tests have been done at 23 °C.