



# GaN DBS BUC/SSPA

## 300W/550W

### Rack Mount

## 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 indoors.

### 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.

BUC version includes a built-in up converter with the option of high stability internal reference.

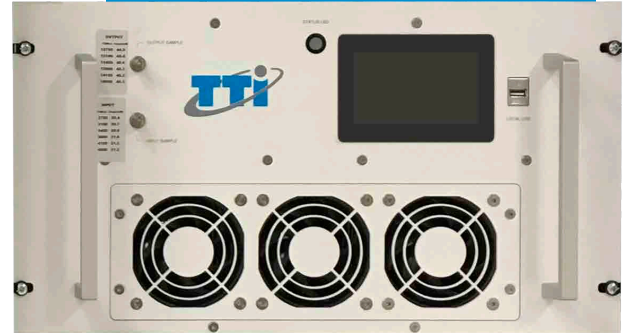
### Multicarrier Operation & Modularity

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

A combination in phase of SSPAs 550 W turns out into output powers up to a few kW.

### 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
- External AC/DC power supply:
  - 1U 19" subrack
  - Redundant AC/DC converters (hot swappable)
- Redundant configurations (1:1, 2:1, N:1)
- OPEX savings

# TECHNICAL SPECIFICATIONS

## ELECTRICAL

### OPTIONS:

- High stability internal reference
- Ethernet port
- Redundant systems (1:1,2:1,N:1)
- Remote M&C Panel
- Breaker panel

Output Power ( $P_{SAT(ypical)}$ )	300W / 550W	54.8 dBm / 57.4 dBm
Linear Power	300W / 550W	53.8 dBm / 56.4 dBm
Input frequency range	950 MHz - 2050 MHz (BUC) / 17.3 - 18.4 GHz (SSPA)	
Output frequency range	17.3 - 18.4 GHz	
Gain	> 75 dB	
Gain Flatness	4 dB p-p, max over full band, 1 dB p-p dB / 40 Mhz	
Gain variation over temperature	±1 dB over full operating range	
Attenuation Adjustment Range	20 dB in 0.25 dB step	
Input 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 reference frequency and 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 ± 3 dB supplied via input L-band cable	
Spectral Regrowth	-26 dBc @ $P_{LINEAR}$	
Spurious	-60dBc max @ $P_{LINEAR}$	

### ADDITIONAL FEATURES:

- 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	300W / 550W
	< 1.700W / 2.700W

## MECHANICAL & INTERFACES

Dimensions (L x W x H)	300W / 550W	RF unit 6RU panel height Power Supply 1RU panel height 19 W x 10.5 H x 22 D inch / 483 W x 270 H x 560 D mm
Weight	300W / 550W	48 Kg
Interfaces		RF Input: 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

Operating Temperature	0°C to +50°C
Storage Temperature	-40°C to +85°C

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