GaN Ku BUC/SSPA
325W/600W

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

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

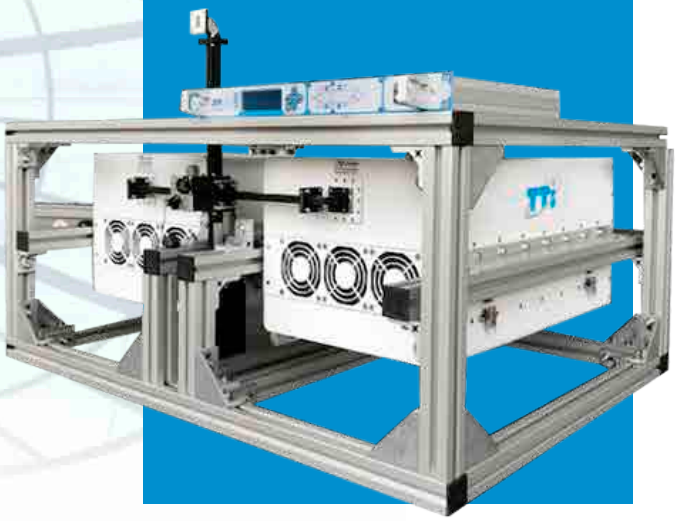
In addition to high reliability and MTBF, this product allows Multicarrier Operation with no memory effects and limited back off.
A sophisticated combination of SSPAs realises power outputs up to a few kWs.

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
- Detachable power supply module
- Redundant configurations (1:1, 2:1, N:1)
- OPEX savings
- Weatherproof



TECHNICAL SPECIFICATIONS

OPTIONS:

- High stability internal reference
- Ethernet port
- Extended temperature range: T1(-40ºC, +55ºC), T2(-40ºC, +60ºC)
- Redundant systems (1:1, 2:1, N:1)
- Remote M&C Panel
- SSPA:
  - Extended frequency (12.75-14.5 GHz)
- Receive Reject Filter (external)
- Indoor version

ADDITIONAL FEATURES:

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

ELECTRICAL

Input frequency range	BUC (1) 950-1700 MHz (2) 950-1450 MHz (3) 1450-1750 MHz
Output frequency range	(1) 13.75 - 14.50 GHz, LO 12.80 GHz (2) 12.75 - 13.25 GHz, LO 11.80 GHz (3) 14.50 - 14.80 GHz, LO 13.05 GHz
Output Power ($P_{SAT(typical)}$)	55 dBm (BUC 325W) / 57.8 dBm (BUC 600W)
Linear Output Power (P_{LINEAR})	54 dBm (BUC 325W) / 56.8 dBm (BUC 600W)
Gain	>65 dB (SSPA); >70 dB (BUC)
Gain flatness	3dB p-p max over full band; 1dB p-p max over any 40MHz
Gain variation over temperature	± 1.5 dB over full operating range
Attenuation Adjustment Range	20dB in 0.25dB step
Input impedance and VSWR	50Ω, ≤1.5:1
Output VSWR	≤1.3:1
Phase noise (BUC)	-65 dBc/Hz at 100Hz, -85 dBc/Hz at 1 kHz, -90 dBc/Hz at 10Hz, -95 dBc/Hz at 100 kHz,
Noise Power Density	-70 dBm/Hz in Tx band -145 dBm/Hz in Rx band @10.7-12.75 GHz *(including option of External Rx Reject Filter)*
External reference frequency and phase noise (BUC)	10 MHz, 0 dBm ±5 dB(TX IF port multiplexed) -135 dBc/Hz at 100 Hz, -155 dBc/Hz at 1 kHz, -160 dBc/Hz at 10 kHz
Spectral regrowth	-26 dBc @ P_{LINEAR}*
Spurious	-60 dBc 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*

POWER SUPPLY

Input voltage	90-264 VAC, 50-60 Hz
Power consumption @ P_{SAT}	1.400W (BUC 325W) / 2.600W (BUC 600W)

MECHANICAL & INTERFACES

Dimensions (L x W x H) 325W / 600W	550 x 360 x 280 mm
Weight 325W / 600W	<70 kg
Interfaces	RF Input (L-Band + Ref Signal): N (f) (BUC)/SMA (f) (SSPA) RF Output: WR75 Grooved / RF Sample: SMA AC Line: 3-pin Military Circular M&C: 19-pin Military Circular

MONITOR & CONTROL PARAMETERS

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

ENVIRONMENTAL

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

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