

New generation of GaN based SSPAs/BUCs for broadcast satcom



USING CUTTING-EDGE GAN TECHNOLOGY, THE NEW Ku SSPA FAMILY OFFERS OUTSTANDING PERFORMANCE IN OUTDOOR OPERATIONS



Multicarrier operation

No memory effects and limited back off guaranteeing unlimited carriers.

Modularity

A combination in phase of SSPAs 600 W delivers output powers up to a few kW's on a built-in redundancy and hot swappable amplification modules.

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.

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

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



OTHER FEATURES

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

OPTIONS

- * 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
- * Detachable power supply

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

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

 **RF performance**

Operating frequency range	12.75-13.25 GHz & 13.75-14.50 GHz (simultaneously)
Output power ($P_{SAT (typical)}$)	57.8 dBm
Linear output power (P_{LINEAR})	56.8 dBm
Gain	>65 dB
Gain flatness	<3 dB p-p @12.75-13.25 GHz & @13.75-14.5 GHz, <1 dB peak to peak any 40 MHz
Gain variation over temperature	± 1.5 dB over full operating range
Attenuation adjustment range	25 dB in 0.10 dB step
Input VSWR	≤1.5:1
Output VSWR	≤1.3:1
Spectral regrowth	-25 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}	2600 W

 **Interfaces & Physical**

Dimensions (L x W x H)	550 x 360 x 280 mm
Weight	68 Kg
Interfaces	RF input: SMA (f) RF output: WR75 grooved / RF sample: SMA (f) AC line: 3-pin MIL circular (RT00144PNH) M&C: 19-pin MIL circular (UT0016-19SH)

 **Monitor & Control**

Remote control	RS-485 / USB / Ethernet
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