



Super Compact 40W Ka-Band BUC GaN

The STS40Ka Band series is powered by GaN technology and is one of the smallest, light-weight efficient units available today.

With best in class RF characteristics, RF sample port, true RMS power measurements, extensive monitor and control capabilities enabled via Ethernet, Serial and/or Analogue interfaces.

Designed for portable, mobile and VSAT on the move applications. Its small size and weight allows and high thermal efficiency, which makes it a most economical solution for fixed VSAT applications.

Options

- Internal / Autosense 10MHz Ref
- Switchable LO—Dual Band Commercial and Military Ka-Band in One Unit
- 48VDC Power Supply
- Bluetooth M&C Interface
- Antenna Mounting Kit

Features

- Extremely high power density - Up to 40W PSAT in this super compact and light weight package - 13KG 28 x 27 x 11 cms
- Superior RF performance:
 - Phase noise 3dB better than IESS308/309
 - Rated Power up to 43dBm
 - Spurious below -65dBc
 - Wide dynamic range of Gain control

- Integrated L-Band to Ka-Band Up Convertor
- Configuration via RS-232 Serial Console, Packet Protocol RS-485 - User friendly HTTP based GUI and SNMP Standard
- Built in Auto-Ranging AC Power Supply
- Redundant Ready with no need of External Redundancy Controller
- Field Upgradable Software
- Low power consumption
- Status LED
- Ideal for Feed Horn Mounting

Parameter	40W
RF Performance	
RF Frequency Ranges-Available in/switched	28-29GHz / 29-30GHz / 30-31GHz
IF Frequency Range	950-1950MHz
LO Frequency (Switchable)	27.05GHz / 28.05GHz / 29.05GHz
Conversion	Single Conversion; non-inverting
Saturated Power	46dBm typ
Linear Power	43dBm min
Conversion Gain	65dBm typ
Gain Flatness	+/-1.5dB typ +/-2dB max over full band; +/-1dB max over any 40MHz
Gain Stability	+/-2dB over full temperature range
Gain Control	20dB min dynamic range
External Reference Frequency	10MHz multiplexed with IF In
External Reference Required Phase Noise	-130dBc/Hz @ 100Hz -140dBc/Hz @ 1kHz -150dBc/Hz @ 10kHz -155dBc/Hz @ 100kHz
Up-Converter Phase Noise	-63dBc/Hz @ 100Hz -73dBc/Hz @ 1kHz -83dBc/Hz @ 10kHz -93dBc/Hz @ 100kHz -110dBc/Hz @ 1MHz
Linearity: 2 tone IMD	-23dBc at P linear
Spectral Re-growth	-26dBc for QPSK at 1.5 x symbol rate at Plin
Noise Power Density: Transmit Band	-85dBm/Hz max
Receive Band	-148dBm/Hz max
Output Spurious: Non-signal related	-65dBc
Signal related	-60dBc
I/P VSWR	1.5:1
O/P VSWR	1.3:1
AM/PM conversion @ P linear	2 Deg/dB
Power	
AC Voltage Range	90-265VAC 50-60Hz Auto-Ranging PFC
Power Consumption	250W typ
Mechanical	
Size	28x27x11cms
Weight	13KG
Cooling	Forced Air
Operating temperature	-40°C to +60°C
Relative Humidity	Up to 100% condensing
Interfaces	
IF Input Connector	N-type female
RF Output Connector	WR28 grooved
AC Power In	MS3112E12-3P
M&C Interface-Serial, Analog and Ethernet	MS3112E14-19S