

Antenna Mount 20-40W Ka-Band BUC / SSPA

The STS20/40Ka Band series offers superior performance and is one of the smallest, lightweight efficient units available today.

The series also benefits from the Quad-Band/Quad LO allowing the complete coverage of the commercial and military Ka Band in a single unit.

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 Reference clock
- Antenna Mounting Kit
- Built in auto-ranging AC power supply (90-230V AC)
- ALC
- 1:1 and 1:2 Redundancy Kit

Features

- Up to 40W power in this super compact and lightweight package
- Superior RF performance:
 - o Phase noise 8dB better than IESS308/309
 - o Spurious emission below -60dBc
 - o Highest Linearity at small back-of
 - o Wide dynamic range of Gain Control
 - Quad Band in one unit with Switchable LO
 - o 27-28GHz / 28-29GHz / 29-30GHz / 30-31GHz
 - Configuration via RS-232 serial console, packet protocol RS-485 -
User friendly HTTP based GUI and SNMP optional
 - Redundant ready with no external controller required
 - Field upgradeable software
 - Status LED
 - Ideal for feed horn mounting
 - Low power consumption





RF Parameters			
Output Frequency Quad Band		27-28 / 28-29 / 29-30 / 30-31GHz	
Input L band Frequencies		950-1950MHz	
Conversion Gain		60dB min, 62dB typ	
Gain Flatness		+/-1.5dB typ +/-2.0dB max over full band; +/-0.5dB max over any 40MHz	
Gain Stability		+/-1.5dB over full temperature range	
Gain Control		20dB min dynamic range	
Linearity:	2 tone IMD	-25dBc max at Plinear	
	Spectral Re-growth	-26dBc for QPSK at 1 x symbol rate at Pout=Plin	
Input Impedance		50 Ohm	
Input/Output VSWR		1.4:1 / 1.3:1	
Noise Power Density:	Transmit Band	-70dBm/Hz max	
	Receive Band	-145dBm/Hz max (10.7GHz - 12.8GHz)	
Output Spurious:	Non-signal related	-60dBc	
	Signal related	-55dBc	
AM/PM conversion at Plinear, °/dB		1.5 maximum	
Group Delay		Ripple 1 nsec p-p max over any 40 MHz band	
LO Frequency, switchable		26.05 / 27.05 / 28.05 / 29.05 GHz	
Type of Conversion		Single conversion, non – inverting	
External 10 MHz Frequency		Over IF L band cable with multiplexing	
Phase Noise, dBc/Hz		-63 @ 100Hz; -73 @ 1kHz; -83 @ 10kHz; -93 @ 100kHz; -110 @ 1MHz	

Power & Mechanical			
AC Voltage Range		90 – 265V AC 50 – 60Hz auto – ranging	
DC Voltage Range		36-75VDC isolated; other options available	
Power Consumption	225W typ. / 160W typ.	280W typ. / 220W typ.	290W typ. / 230W typ.
DC power in/AC power in	250W typ. / 180W typ.	260W typ. / 200W typ.	270W typ. / 210W typ.
Size 20W/40W	23x13.75x10cms / 28.5x27.25x11cms		
Weight 20W/40W	5.5KG / 12.75KG		
Cooling	Forced Air		
Operating Temperature / Relative Humidity	-40°C to +60°C / Up to 100% condensing		



Interfaces	
IF Input Connector	N-type Female
RF Output Connector	WR28 grooved
AC Power In	MS3112E12 – 3P
RS485 – Ethernet – SNMP	MS3112E14 – 19S

Part Number	Output Power (W)	Psat (dBm / W)	Plinear (dBm / W)	P Cons at Prated	P Cons at Plin
TPB-KAX0430-HMS X*	20W	43 / 20	40 / 10	180W	130W
TPB-KAX0460-HMS X*	40W	46 / 40	43 / 20	240W	210W

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.