



IRT 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, ⁰ /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 – 6 0Hz auto – ranging							
DC Voltage Range	36-75VDC isolated; other options available							
Power Consumption DC power in/AC power in	225W typ. / 160W typ. 250W typ. / 180W typ.	280W typ. / 220W typ. 260W typ. / 200W typ.	290W typ. / 230W 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			ng					





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
STS20KA1-OPTxx*	20W	43 / 20	40 / 10	180W	130W
STS40KA1-OPTxx*	40W	46 / 40	43 / 20	240W	210W

* xx To be replaced by 2 digit code based on configuration

Specifications are subject to change without notice