STS20/40Ka
Antenna Mount SSPB

SpacePath Communications 20-40W Ka-Band BUC

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:
  - Phase noise 8dB better than IESS308/309
  - Spurious emission below –60dBc
  - Wide range Gain Control
  - Highest Linearity at small back-off
- Quad Band in one unit with Switchable LO
  - 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

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20W – 40W Ka band Outdoor SSPB Technical Specification	
RF Parameters	
Output Frequency *Quad Band*, GHz	27-28 / 28-29 / 29-30 / 30-31
Input L band Frequencies. MHz	950-1950
Conversion Gain, dB	60 minimum, 62 typical
Gain Flatness, dB	+/-1.5 typical +/-2.0 maximum over full band +/-0.5 maximum over any 40MHz
Gain Stability, dB	+/-1.5 maximum over full temperature range
Gain Control, dB	20dB minimal dynamic range
Linearity at Pout=Plin: **2 tone IMD** Spectral Re-growth	-24dBc max at Plinear -26dBc for QPSK at 1 x symbol rate at Pout=Plin
Input Impedance, Ohm	50
Input/Output VSWR	1.4 : 1 / 1.3 : 1
Noise Power Density, dBm/Hz	-70 in Transmit Band, -145 in Receive Band (10.7 GHz – 12.8 GHz)
Spurious Emission dBc; Non-signal related Signal related(at Plin)	-60 / -55 max
AM/PM conversion at Plinear, ^{0}/dB	1.5 maximum
Group Delay	Ripple 1 nsec p-p max over any 40 MHz band
BUC Parameters	
LO Frequency, switchable, GHz	26.05 / 27.05 / 28.05 / 29.05
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	
AC Voltage Range	90 – 265V AC 50 – 6 0Hz auto – ranging
DC Voltage Range	36-75VDC isolated; other options available
Mechanical & Environment	
Size 20W/40W	23x13.75x10cms / 28.5x27.25x11cms
Weight 20W/40W	5.5KG / 12.75KG
Cooling	Forced Air
Operating temperature / Relative Humidity	-40°C .. +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

SpacePath 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 replace by 2 digit code based on configuration

Specifications are subject to change without notice