



Block Up Converter L to Ku-Band, N-Type Female Connector, 10MHz Ext Reference, 1-200Watt Options, Outdoor Unit



Our Ku-Band BUC (Block-Up Converter) is a highly cost effective RF outdoor transmitter for satellite communication. It is suitable for both data and voice communication operating in different modulation formats including BPSK, QPSK, 8-PSK / 8-QAM / 16-QAM, 16-APSK and 32-APSK.

This Ku-Band BUC is also suitable for SCPC (Single Channel Per Carrier) network configurations and can be used in low or intermediate data rate for MCPC (Multi-Channel Per Carrier), DAMA (Demand Assigned Multiple Access) or TDMA (Time Division Multiple Access) applications.

It has a compact design that comprises of

Up Converter, Solid State Power Amplifier, Phase Locked Oscillator and DC-DC power converter.
It employs L-Band IF interface to the indoor unit.

Our BUC is a low cost design suitable for broadband applications (such as DVB-RCS) in satellite IP networks.

Features

- o Available for all Ku-Band frequencies
- o L-Band Interface
- o Low cost, compact
- o Direct antenna mount
- o Easy installation
- o Excellent phase noise characteristics
- o Temperature compensation
- o Low spurious
- o Higher power options
- o Redundancy options
- o RS232/485 M&C option
- o Wide input D.C. voltage range

Reliability

Field proven under harsh environment conditions
temperature ranging from -40°C to +60°C
with up to 100% humidity

Monitoring and Control (Optional)

- o SSPA On/Off Control
- o Adjustable gain
- o Temperature sensor reading
- o LO unlocked alarm
- o Input Power Detection
- o Output Power Detection
- o SNMP
- o FSK
- o Automatic level control with level stability accuracy better than ± 0.5 dB

Quality Assurance

All units undergo -
Intensive active electrical stress screening with screening.
100% waterproof test equivalent to IP65
to ensure normal operation during tropical, cold and harsh environment

Order Examples: RBUC-L(950-1700M) to Kue(13.75-14.50)-Nf-ER10M-40W-ODU-g11

Description: (Block Up Converter, L Band(950-1700MHz) to Ku Extended(13.75-14.50GHz), N-Type female Connector, 10MHz External Reference, 40 Watts, Outdoor Unit

Additional Options: **Input**

(see table below)

Output

(see table below)

Watts

(see Transmit table below)

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Frequency Range

	Input (MHz)	Output (GHz)	LO (GHz)
Standard Ku	950 to 1450	14.00 to 14.50	13.05
Offset	950 to 1450	13.75 to 14.25	12.80
Extended	950 to 1700	13.75 to 14.50	12.80
Low	950 to 1200	13.00 to 13.25	12.05
Plan	950 to 1450	12.75 to 13.25	11.80
High	1000 to 1300	14.50 to 14.80	13.50

Transmit

Power	Output P1dB (dBm) min	Gain (dB)	Power Consumption (Typ)
1W	30	56 – 60	16W
2W	33	58 – 62	24W
4W	36	61 – 69	45W
6W	37.8	62 – 70	58W
8W	39	64 – 72	85W
16W	42	65 – 75	150VA
25W	44	65 – 75	210VA
40W	46	65 – 75	400VA
60W	48	75 – 85	800VA
80W	49	75 – 85	800VA
100W	50	75 – 85	900VA
200W	53	75 – 85	1800VA

Input Power @P1dB Output	- 25 dBm
Gain Flatness for Full BW	±2.0 dB max
Gain Stability Over Temperature	±2.0 dB max
Spurious @P1dB Output	-55 dBc max
Phase Noise @ 100Hz offset	-63 dBc/Hz
@ 1kHz offset	-73 dBc/Hz
@ 10kHz offset	-83 dBc/Hz
@ 100kHz offset	-93 dBc/Hz
Intermodulation Product (with 2 carriers, 1MHz apart, at 6dB backoff from Output @P1dB)	-27 dBc max
Frequency Inversion	Non-inverted
Input VSWR	1.5:1 max
IF Input Interface	50H N-Type Female
Output Interface	F-Type Female (opt)

Environmental

Operating Temperature	-40 to +60°C
Relative Humidity	Up to 100%

External Reference

Frequency	10MHz
Phase Noise	External Reference Dependent
Power	-5 to +5 dBm

Monitor And Control (optional)

Interface	RS232/485
Optional	SNMP, FSK
SSPA Output Power Detect	Yes
SSPA On/Off Control	Yes
Inbuilt Redundancy Control	Yes

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Power Supply

DC Input Voltage for Dumb BUC 1W & 2W	+24Vdc (Typical)
DC Input Voltage for BUC 2W, 4W, 6W & 8W	+18Vdc to +60Vdc
AC Input Voltage for BUC 16W above	220 Vac 110 Vac (Optional)
DC Input Voltage for BUC 16W above	+48 Vdc (Optional)

Mechanical

Dimensions	434L x 420W x 232H mm 282L x 140W x 60H mm 282L x 140W x 98H mm 388L x 230W x 189H mm 434L x 420W x 232H mm TBD	(Dumb 1W & 2W) (2W, 4W & 6W) (8W) (16W, 25W & 40W) (60W 80W & 100W) (200W)
Weight	1.0 kg 3.2 kg 3.5 kg 15 kg 27 kg 35 Kg	(Dumb 1W & 2W) (2W, 4W & 6W) (8W) (16W, 25W & 40W) (60W, 80W & 100W) (200W)
Color	White powder coat	

Compliance Standard

IEC 60950	International Safety Standard for Information Technology Equipment
ETSI EN 300 673	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) Standard for Very Small Aperture Terminal (VSAT)
ETSI EN 301 489-1	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility Standard for Radio Equipment and Services
FCC Part 15 Class B	Two levels of radiation and conducted emissions limits for unintentional radiators (FCC Mark)
IEC 60068	
MIL-STD-810F	Environmental Testing Standard Environmental Engineering Considerations and Laboratory Tests