

# L Band To Tx Masthead Upconverters

## SUC Series

- Provides Uplink Test Signals
- L Band Input
- S, C, X, Ku, DBS, Ka and Q Band Output
- Weatherproof Enclosure
- High Stability Internal OCXO
- Good Phase Noise
- Various Mounting Options
- Custom Options Available



Designed for Satcom test applications, the SUC Series of Masthead Converters from AtlantecRF offer a cost effective solution for converting from L Band to all common satcom uplink frequencies. All models incorporate fundamental frequency phase locked oscillators and double balanced mixers. The Converters are designed for remote mounting, with DC supplied on the L-Band RF input.

### Options:

- 01 - Internal OCXO for +/-0.05ppm stability
- 02 - Internal amplifier for 0dB (nominal) conversion loss
- 03 - Relay closure and monitor socket for remote monitoring
- 04 - U Bolts for pole mounting (specify pipe size)
- 05 - Bias Tee for the RF source / DC supply
- 50 - Custom requirements – please call to discuss

We reserve the right to change standard product specifications without notice but will be pleased to consider control drawings for quotation.

General Specifications (also see options)	
RF Input Frequency (L Band)	800-2800MHz
RF Output Frequency	Model Specific in S to Q Band
Input / Output VSWR	1.8: typ.
Maximum RF Input	+10dBm
Nominal Conversion Loss	20dB (see options)
LO Stability	+/-1ppm over -10 to +50C
Operating Temperature	-10 to +50C
DC Supply	15-24V DC
DC + RF Input Connector	N Type Female
RF Output Connector	Model Specific <26GHz SMA Female >26GHz 2.92mm Female
Indicators	DC Supply and LO Lock (LEDs)
Housing	Outdoor, Weatherproof to IP65
Size (mm)	166 x 128 x 78mm approx. (excluding connectors and mounting brackets)

LO Phase Noise (dBc/Hz) typical			
Offset Frequency (Hz)	Typical Output Frequency (GHz)		
	3GHz	10GHz	26GHz
100	-85	-75	-70
1K	-95	-85	-75
10K	-100	-90	-75
100K	-115	-90	-80
1M	-135	-120	-115
10M	-145	-130	-125

Frequency Configuration Table

Model No	Translation Bands	Input Frequency Range (MHz)	Output Frequency Range (MHz)	LO Frequency (MHz)
SUC-1075-S	S L-Tx	950-1050	2025-2125	1075
SUC-4975-C	C L-Tx	950-1450	5925-6425	4975
SUC-7375-CI	C L-Tx (inv)	1450-950	5925-6425	7375
SUC-6950-X	X L-Tx	950-1450	7900-8400	6950
SUC-11800-Ku	Ku L-Tx	950-1450	12750-13250	11800
SUC-12800-KuE	KuE L-Tx	950-1700	13750-14500	12800
SUC-13050-Ku	Ku L-Tx	950-1450	14000-14500	13050
SUC-16350-DBS-A	DBS L-Tx	950-1450	17300-17800	16350
SUC-16350-DBS-B	DBS L-Tx	950-1750	17300-18100	16350
SUC-16350-DBS-F	DBS L-Tx	950-2050	17300-18400	16350
SUC-168350-DBS	DBS L-Tx	950-1250	17800-18100	16850
SUC-17150-DBS	DBS L-Tx	950-1250	18100-18400	17150
SUC-26700-Ku	Ku L-Tx	800-2600	27500-29300	26700
SUC-28900-Ka	Ka L-Tx	800-2600	29700-31500	28900
SUC-42700-Q	Q L-Tx	800-2800	43500-45500	42700