

# Compact C-BAND Upconverter

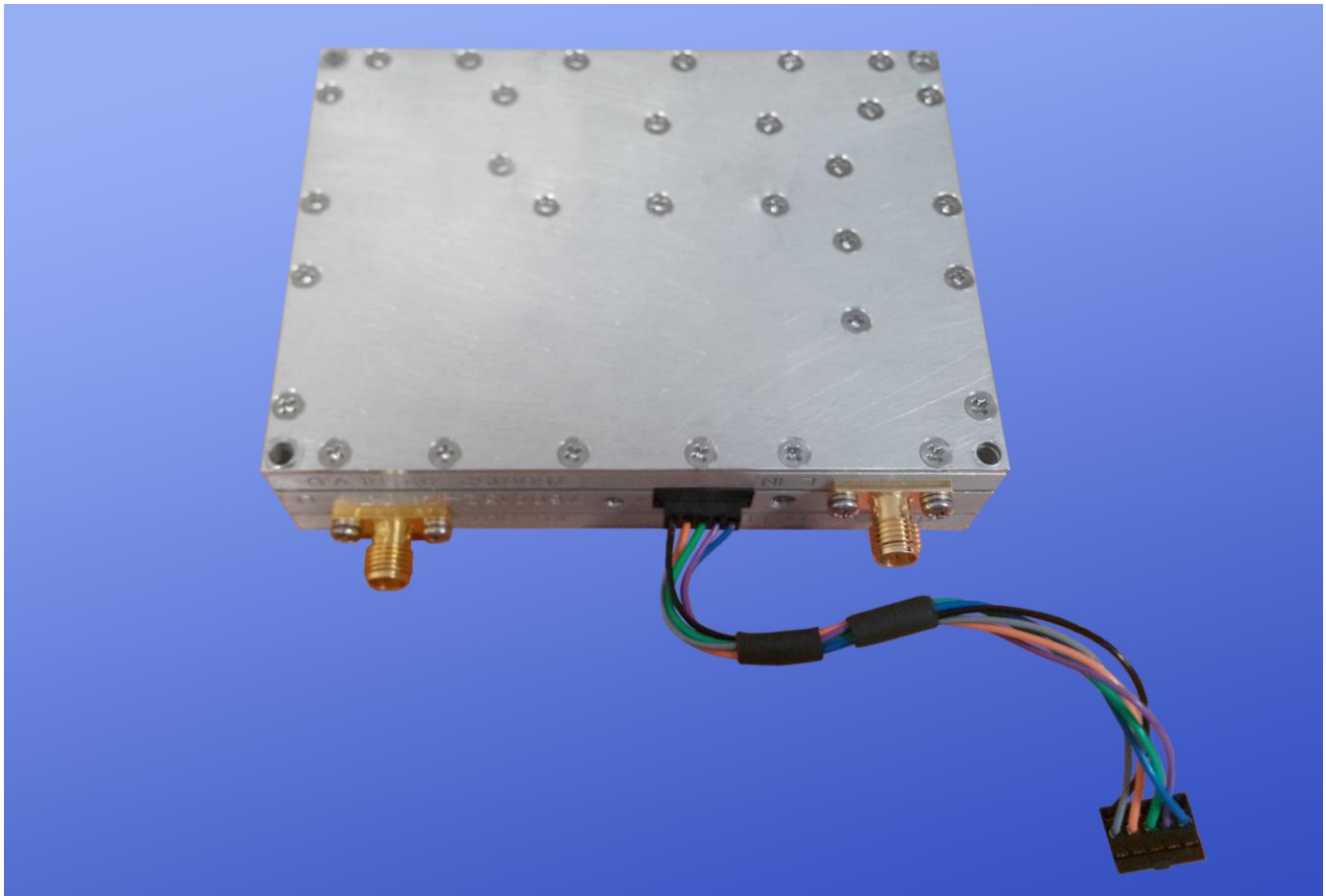
DATASHEET



SATELLITE COMMUNICATIONS

## KEY FEATURES

- Performs frequency conversion from L-band to C-band (5.85-6.425 GHz)
- External 10 MHz reference required
- Built-in Telemetry for critical parameters such as: PLL circuit operation, mute control, over temperature shutdown, summary alarm
- Lightweight and compact size
- 12 VDC power



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MICROWAVE A logo for ALGA Microwave, featuring the word "ALGA" in blue and "MICROWAVE" in orange, with a blue square icon containing a white play button symbol to the right.

# Compact C-BAND Upconverter Specifications

ELECTRICAL CHARACTERISTICS					
Output Frequency Range	Standard Band: 5.85 – 6.425 GHz				
Input Frequency Range	Standard Band: 950 - 1525 MHz				
Local Oscillator Frequency	Standard Band: 4.9 GHz				
Gain Stability Over Temperature	± 1 dB nominal; ± 2.0 dB max				
Gain Variation at fixed temperature	± 1.5 dB over full band; ± 0.5 dB over 40 MHz				
Linear Gain	0 dB nominal				
Output VSWR	1.50:1				
10 MHz Reference	0 dBm ± 5.0 dB				
	@ 100 Hz	@ 1 KHz	@ 10 KHz	@ 100 KHz	@ 1 MHz
10 MHz Phase Noise Requirement	-130 dBc/Hz max	-140 dBc/Hz max	-150 dBc/Hz max	-155 dBc/Hz max	
Local Oscillator Phase Noise	-63 dBc/Hz max	-73 dBc/Hz max	-83 dBc/Hz max	-93 dBc/Hz max	-103 dBc/Hz max
Output Spurious	-55 dBc max.				
Input Impedance	50 Ohms				
Input VSWR	1.50:1				
Power consumption (at rated power)	4 W				
Power requirement	12 VDC				

INTERFACE	
Output Interface	SMA, 50 Ohms
Input Interface	SMA, 50 Ohms
Connectors	PWR and M&C: 2X5 ribbon miniconnector

MECHANICAL	
Dimensions (L x W x H)	3.7 x 2.7 x 0.8 in (94 x 68.5 x 20 mm)
Weight	1.7 lbs (0.8 kg)

ENVIRONMENTAL			
	Temperature Range (ambient)	Humidity	Altitude
	-40°C to + 55°C (operating); -40°C to + 75°C (storage)	0 to 80% (condensing)	10,000 ft ASL

Ordering Number: 1340034-03