Ku-Band 4900 Series Mini-BUCs

Compact and Lightweight
Designed and built with VSAT stabilized antenna platforms and other similar satcom-on-the-move customer applications in mind.

Low Cost, High Performance
Designed for operation in high ambient temperature environments, with superior phase noise performance. Guaranteed specified minimum P1dB power.

Comprehensive M&C Functionality
Accessible anytime, anywhere via Internet or mobile phone. Integrate with SNMP to NMS. Enables effective operational management and minimizes network outage. Allows change of IP address without serial cable. Quad LO, serial and LAN interface.

Multi-Band Operation
Select from multiple, factory-set frequency bands within Ku-band.

Internal Self-Resetting Protection
Protects against high temperatures, open/short output conditions.

Global Applications
Meets Electromagnetic Compatibility Directive 2004/108/EC to satisfy worldwide requirements and is CE-marked.

Worldwide Support
Backed by over 35 years of satellite communications experience, and CPI's worldwide 24-hour customer support network that includes more than 20 regional factory service centers.

4900 Series
8 and 16 watt Ku-band BUCs for maritime, VSAT, SOTM and other **satellite uplink applications**

OPTIONS
- Multi-band BUC: select from multiple factory-set frequency bands within Ku-band
- 1:1 redundant switching - BUC is configured for 1:1 systems as standard. System hardware is sold separately.
- Auto-sensing, high stability external 10 MHz OCXO reference

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8 and 16 W Mini-BUCs

Power Rating	8 W		16 W	
Platform	DC Powered			
Model Number	4908(L)-W/S	4908(L)-W/E	4916(L)-W/S	4916(L)-W/E
RF Output Frequency Range (GHz)	14.00 to 14.50	13.75 to 14.50	14.00 to 14.50	13.75 to 14.50
Input Frequency Range (MHz)	950 to 1450	950 to 1700	950 to 1450	950 to 1700
LO Frequency (MHz)	13050	13050 / 12800, selectable	13050	13050 / 12800, selectable
IF Input Power @ 1 dB, GCP, CW and Max. Gain	-31 dBm nom.			
RF Output Power @ 1 dB, GCP, CW	+39 dBm min.		+41.5 dBm min.	+41.0 dBm min.
Gain at 0 dB Attenuation (max. gain)	70 dB nom.			
Gain Flatness Over Any 40 MHz Band	±1.0 dB max.			
Gain Flatness Over Full Band	±2.0 dB max.			
Gain Stability Over Any 50°C range	±1.5 dB max.			
Gain Stability Over Operating Temperature Range	±2.0 dB max. when frequency set; ±3.0 dB max. when frequency not set			
Reference Frequency (external)	10 MHz			
Reference Frequency Input (external)	Multiplexed via IFL on N-type transmit IF input			
Reference Frequency Level	-10 to +5 dBm			
Frequency Conversion	Spectrum non-inverting			
IF Input Impedance and Connector	50 Ω, N-type			
IF Input VSWR	1.8:1 max.			
Transmit Attenuator Steps	0 dB to 20 dB in 0.25 dB steps			
Output Power Meter Range/Accuracy	15 dB/±1.0 dB max.			
Output Power Meter Modes	CW and burst (>100 uS) with adjustable threshold			
RF Output IMD Ratio	-25 dBc max. with 2 CW carriers each at 6 dB OBO			
Spurious/Harmonic Output @ 3dB OBO	-50 dBc max.	EN 301-428/EN 301-430	-50 dBc max.	EN 301-428/EN 301-430
Maximum Phase Noise (SSB) of Reference Frequency	-135 dBc dBc/Hz at 100 Hz; -145 dBc/Hz at 1 kHz; -155 dBc/Hz at 10 kHz; -155 dBc/Hz at 100 kHz			
Phase Noise (SSB) of BUC With Reference Frequency Defined Above	-65 dBc dBc/Hz at 100 Hz; -75 dBc/Hz at 1 kHz; -85 dBc/Hz at 10 kHz; -95 dBc/Hz at 100 kHz			
Group Delay	2 $nsec_{pp}$ max. linear (over any 10 MHz); 0.00025 $nsec/MHz^2{}_{pp}$ max, parabolic (over any 80 MHz); 1 ns_{pp} max. ripple (over full band)			
AM/PM Conversion	2.0°/dB max. at 2 dB OBO			
Power Supply Voltage	18 to 60 VDC via IF I/P and ext DC connector		28 to 60 VDC via IF I/P and 18 to 60 VDC via ext DC conn.	
Power Supply Minimum Turn-On Voltage	+20 VDC		+29 VDC via IFL and 20 VDC via ext. conn.	
Power Supply Consumption	90 W typ, 100 W max.		125 W typ, 130 W max.	
Operating/Storage Temp. Range	-40 to +55ºC/-40 to +70ºC			
Relative Humidity	100% condensing			
Weatherproofing	Sealed to 34 kPa			
Connections	IF Input: N-Type Female; RF Output: WR75 PBR120 flange waveguide, 4 mm threaded holes; DC: MS 62IN 12E 8-2P with dust cap; M&C Serial Interface: 62IN-57A-12-14S(219) with dust cap; LAN connection, see page 3			
Volume (for w/g output BUCs)	247 x 151 x 85 mm (9.8 x 5.9 x 3.5”) without brackets			
Weight	2.4 kg (5.3 lbs)			

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CE

Quality Management System - ISO 9001:2008

For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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Configure your 4900 Series Ku-Band Mini-BUC

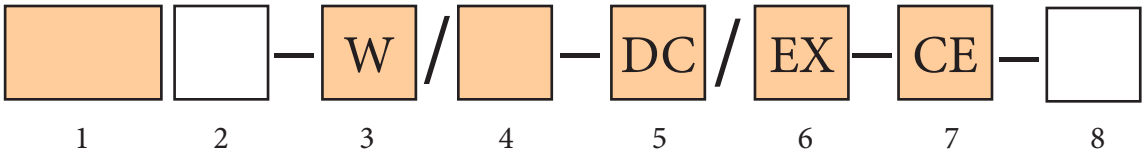
Configuring your BUC is easy. For this product, most of the configuration is predetermined. After deciding the required output level, all that is left is to indicate whether LAN is required, which frequency range is needed, and whether the internal reference option is required. Instructions follow:

Box 1: BUC Power Level
- Enter 4908 for 8 watt BUC
- Enter 4916 for 16 watt BUC

Box 2: LAN Option placeholder
- Enter "L" for BUCs with LAN option selected
- LEAVE BLANK if the LAN option is not selected

Box 4: Frequency range (within Ku-band)
- Enter "S" for 14.00 to 14.50 GHz
- Enter "E" for 13.75 to 14.50 GHz

Box 8: Internal reference
-Enter "R" only if internal reference option is selected
-LEAVE BLANK if internal reference option is not selected



Examples: 4908L-W/S-AC/EX-CE-R indicates an 8 watt BUC with a frequency range of 14.0 -14.5 GHz, including LAN and internal reference.
4916-W/E-AC/EX-CE indicates a 16 watt BUC with a frequency range of 13.75 to 14.5 GHz, without LAN and no internal reference.

Notes: Box 3 indicates a waveguide RF output connection. Box 5 indicates that this product is DC powered. Box 6 indicates that power is fed via an external connector. Box 7 indicates that this product is CE marked.