



## C-Band Hubmount SSPB

(2 W, 5W)

**SSPB-100C<sup>®</sup> series**  
**SSPB-100C2;**  
**SSPB-100C5**

### INTRODUCTION

The SSPB-C2 and SSPB-C5 described in this section are Advantech's line of hub-mount BUC (Block Up-Converter) transmitters, operating in the C-Band, with output power of 2 watts and 5 watts. The BUC is used in conjunction with an L-Band modem or an indoor L-Band transceiver. The BUC is an integrated unit, complete with power supply, phase-locked oscillator, mixer, filter and cooling mechanism. Intended for outdoor operation, the BUC provides the utmost in convenience and efficiency. Other Advantech BUCs are also available for higher powers or for operation at other up-link frequencies.

### STANDARD FEATURES

- Converts synthesized L-Band (950-1525 MHz) to the C-Band (5.850 – 6.425 GHz )
- Phase-locked local oscillator connects directly to an external 10 MHz reference
- Fully meets IESS 308/309 Phase/Noise requirements
- Integrated amplifier provides output power levels of 2 or 5 watts
- Robust, Weatherproof package
- Power feed (DC) via coaxial cable
- Compact packaging
- Special easy to seal Output Connector
- Protection against thermal runaway and out-of-lock conditions
- CE Marking

### OPTIONS

- RS-485 serial Interface for
- Remote Monitoring and Control
- Remote Power Control
- Receive Reject Filter

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TECHNICAL SPECIFICATIONS		2 W	5 W
Electrical Characteristics			
Input / Output frequency range	Standard C-Band 950-1525 MHz/5.850-6.425 GHz Palapa Band (CP) 1025-1325 MHz/6.425-6.725 GHz Insat Band (CI) 1025-1325 MHz/6.725-7.025 GHz		
Input Level Range	-5 to -55 dBm (-20 dBm for P1dB, -30 dBm for P1dB is option)		
Conversion Gain at center frequency	54 dB ± 1 dB	58 dB ± 1dB	
Output power (P 1dB) min	+33 dBm	+37 dBm	
Gain flatness	±2.0 dB, max over full band, ± 0.6 dB/40 MHz at 25°C		
Gain variation over temperature	±1.5 dB, over full operating range (temperature compensation mode)		
Input VSWR, in-band	1.3:1		
Output VSWR, in-band	1.5:1		
Noise Figure	15 dB, max		
Spurious at rated power	-55 dBc, max		
Harmonics at rated power	-45 dBc, max		
AM/PM conversion	3°/dB typical (at P <sub>1dB</sub> )		
Third order IMD (two equal tones 5 MHz apart)	-30 dBc, max (at SCL 9 dB back-off from P <sub>1dB</sub> ) -24 dBc, max (at SCL 6 dB back-off from P <sub>1dB</sub> )		
LO leakage	-50 dBc at output level = P1dB - 13 dB		
Local Oscillator frequency (LO)	C-Band 4.9 GHz, CP-Band 5.4 GHz, CI-Band 5.7 GHz		
Local Oscillator Phase noise	-50 dBc/Hz at 10 Hz -70 dBc/Hz at 100 Hz -78 dBc/Hz at 1000 Hz -82 dBc/Hz at 10 kHz -95 dBc/Hz at 100 kHz		
Group Delay:	Linear Parabolic Ripple	0.02 ns/MHz, max 0.003 ns/MHz <sup>2</sup> , max 1 nsec p-p, max	
External Reference			
Reference frequency	10 MHz		
Reference frequency phase noise (F <sub>ref</sub> = 10 MHz)	-115 dBc/Hz at 10 Hz -135 dBc/Hz at 100 Hz -148 dBc/Hz at 1000 Hz -150 dBc/Hz at 10 kHz -160 dBc/Hz at 100 kHz		
Reference frequency level	0 dBm ± 5 dB		
Rejection in receive band with receive reject filter	(optional)		
Power Requirements			
Supply voltage	+20 to +60 VDC supplied over coax cable		
Power consumption (nominal)	25 W	50 W	
Mechanical Characteristics			
Dimensions (W x H x L)	6.29" x 3.90" x 7.39"		
Weight	11 lb. (4 kg)		
Interfaces:	Type N (F) Type N (F) or optional CPR137 contact MS3112E10-6P		
Environmental Conditions			
Temperature:	Operating Storage	-30°C to +55°C ; Option: E-40°C to +55°C; G: -50°C to +50°C -55°C to +85°C	
Humidity	100%, condensing (2" rain/hour)		
Altitude	10,000' AMSL, de-rated 2°C/1,000' from AMSL		

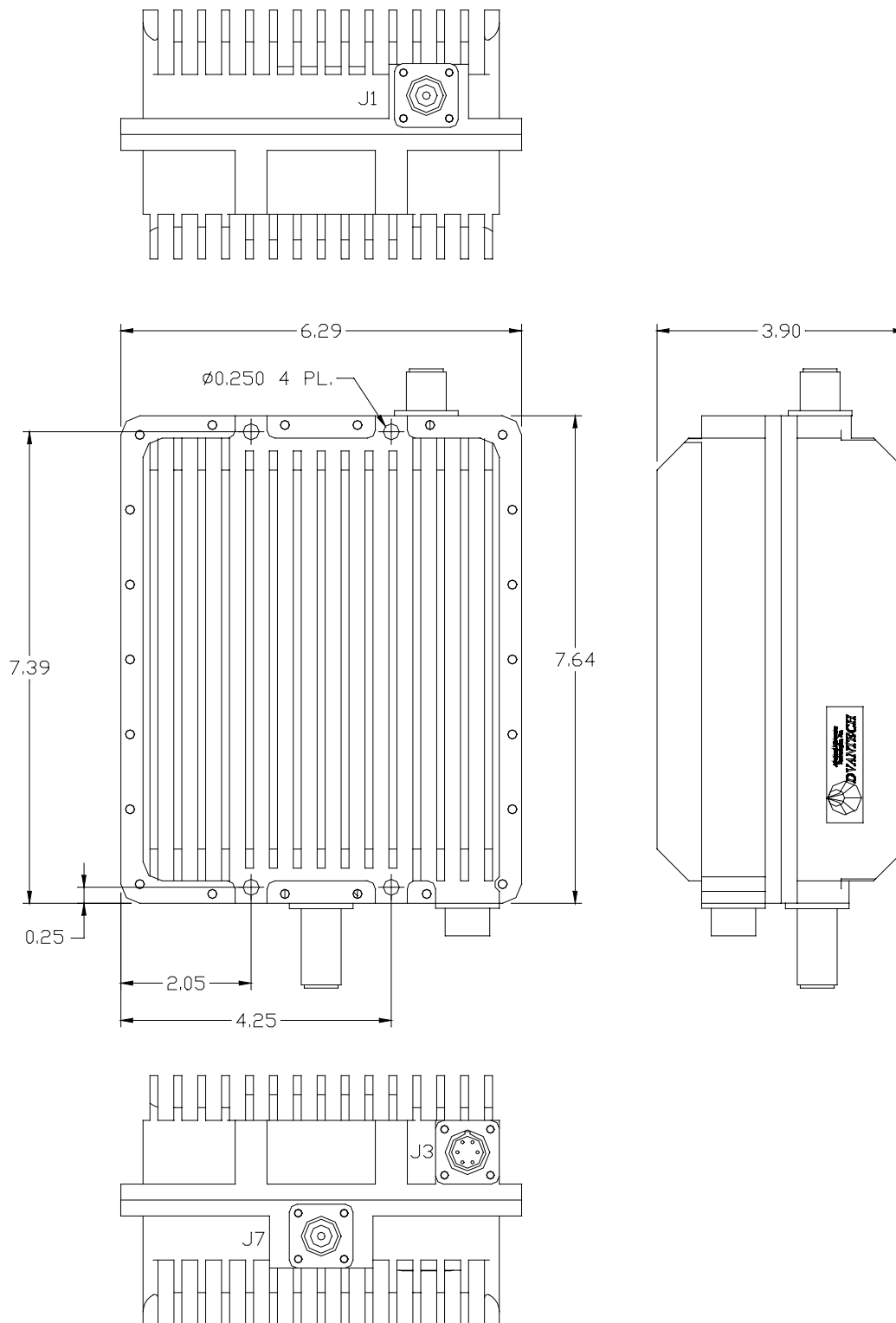
ADVANTECH reserves the right to change the above specifications without prior notice

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**PRODUCT OUTLINE C-BAND HUBMOUNT BUC 2W, 5W**

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