

iDIRECT iNFINITI & Evolution

4W Universal Ku-Band BUC (P/N: E0001102-0001)



The 4W Universal Ku-band Block Up Converter (BUC) is power efficient and compatible for use with both the iNFINITI and Evolution platforms, these BUCs support both standard and extended Ku-band for increased flexibility.

Electrical Specifications

Output Frequency Range	13.75 to 14.5 GHz
Input Frequency Range	950 to 1,700 MHz
Conversion Type	Single, fixed L.O.
L.O. Frequency	12.80 GHz
Output Power @ 1dB G.C.P.	+36 dBm min. over temperature
Linear Gain	62 dB nom., 56 dB min.
ACPR	-26 dBc typ. @ Pout = +35 dBm
Requirement for External Reference	
[Frequency]	10 MHz (sine-wave)
[Input Power]	-5 to +5 dBm @ Input port
[Phase Noise]	-125 dBc/Hz max. @ 100 Hz -135 dBc/Hz max. @ 1 kHz -140 dBc/Hz max. @ 10 kHz
L.O. Phase Noise	-60 dBc/Hz max. @ 100 Hz -70 dBc/Hz max. @ 1 kHz -80 dBc/Hz max. @ 10 kHz -90 dBc/Hz max. @ 100 kHz -100 dBc/Hz max. @ 1MHz
Spurious	
[in band]	-50 dBc max. @ 13.75 to 14.5 GHz
[in receive band]	-70 dBm max. @ 10.95 to 12.75 GHz
[Out-of-band]	-50 dBc max. @ Pout = +36 dBm
Input Impedance	75 ohms nom.
Input V.S.W.R.	2 : 1 max.
Output V.S.W.R.	2 : 1 max.
DC Power Requirement	
[Voltage Range]	+24 VDC (+15 to +30 VDC)
[Power Consumption]	37 W max. @ Pout = +36 dBm
LED Indicator	GREEN: L.O. locked RED: L.O. unlocked (or no 10 MHz reference signal)

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Mechanical Specifications

Input Interface	F-type, female
Output Interface	Waveguide, WR-75 (with Groove)
Dimension & Housing (without interface connector)	175.9 (L) x 143 (W) x 56.5 (H) mm [6.93" (L) x 5.63" (W) x 2.22" (H)]
Weight	1.7 kg max. [3.7 lbs max.]

Environmental Specifications

Temperature Range (ambient)	-40 to +55 C (operating) -40 to +75 C (storage)
Humidity	0 to 100 %
Altitude	15,000 feet
Compliance	CE, FCC, RoHS

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Mechanical Drawing

