

Datasheet**Description**

The BDC-K-Ka-18-40 is for an 18-40GHz down-converter for use with a 2-20GHz tuned receiver. It is designed to be small in size, with low noise and spurious, and has a built-in phase-locked local oscillator. The local oscillator consists of a Dielectric Resonator Oscillator (DRO) which is phase locked to a 100MHz reference. The 100MHz reference may also be locked to an external 10 MHz reference. There are two separate lock detect signal provided from the module. One is from the DRO to indicate lock to the 100MHz reference signal and the second is from the 100MHz reference to indicate lock to the 10MHz externally applied reference. The two output signals are accessed through a 9-way D-Type connector.



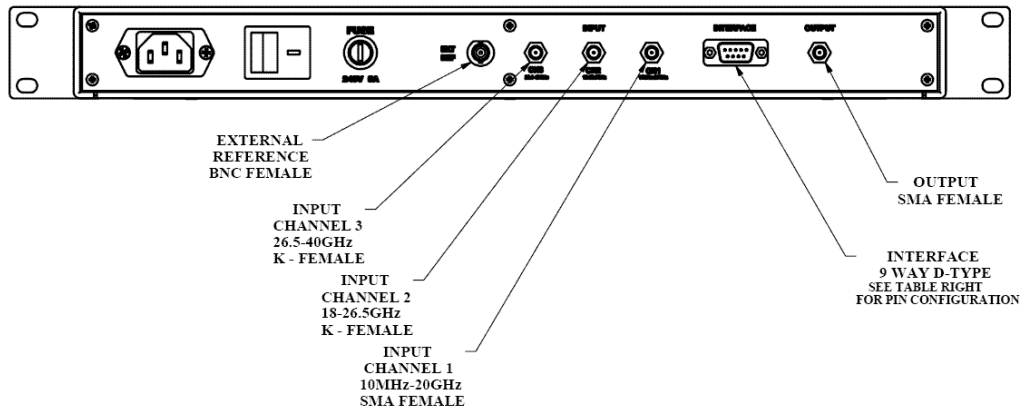
The down-converter can operate in two bands, 18-26.5GHz and 26.5-40GHz, with the IF output in the range 2.5-17.5GHz to make it compatible with existing communications equipment. The unit is designed to fit into a 1U high rack chassis, with its own integral power supply.

Features

- Converts 18-40 GHz to 2-20 GHz in Switched bands
- Excellent Spurious performance
- Excellent SSB Phase Noise characteristics
- TTL Switching
- Internal or External Reference option
- Immediate availability
- Heavily discounted price for a limited period (until stock lasts)

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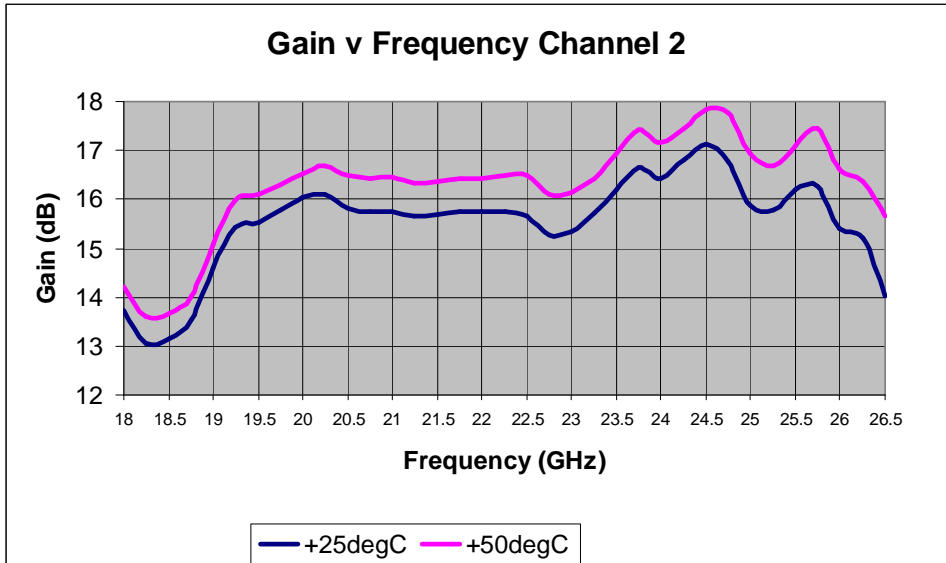
Frequency bands:	
Input 1	10MHz-20GHz
Input 2	18-26.5 GHz (LO frequency 29GHz)
Input 3	26.5-40 GHz (LO frequency 43.5GHz)
Maximum input power	+12 dBm
IF outputs Input 2 and Input 3	2.5-17GHz
VSWR	2:1 max
Output switching	TTL control
RF to IF Gain	15dB +/-3dB
Noise Figure	13dB typical
Phase locking	Internal XCO or external 10MHz ref.
LO Spurious Signals	<-60dBc
LO SSB Phase Noise	-85dBc/Hz at 1kHz offset
LO-RF leakage	-65dBm max
Connectors:	
IF Output	SMA
Input 1	SMA
Input 2	K
Input 3	K
External 10 MHz reference	BNC
TTL & Signal interface	9-Way D-Type
Power supply	230VAC+/-10% 50/60 Hz power
Operating temperature range	0 - 50 deg C



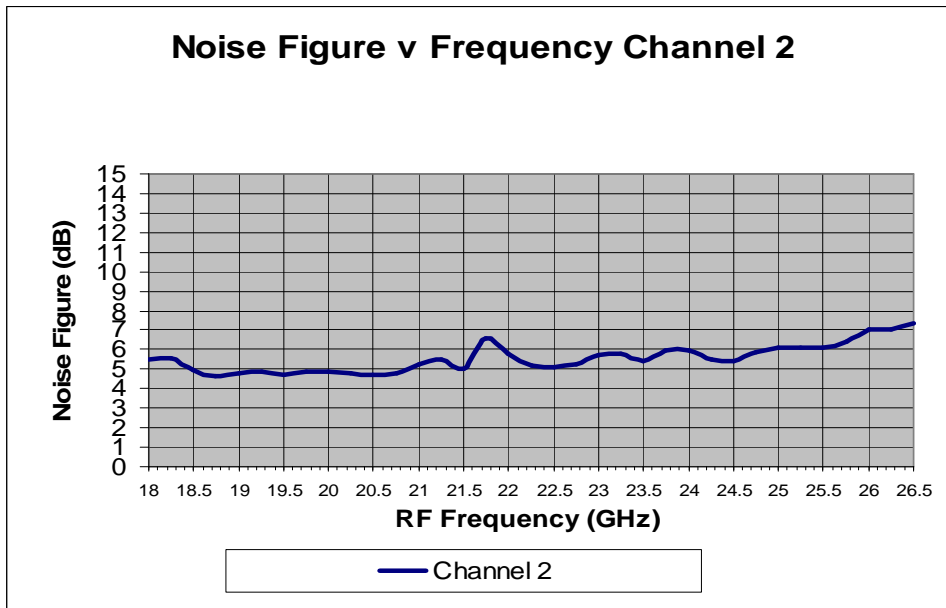
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**Test Data:
CHANNEL 2**

TYP. GAIN:



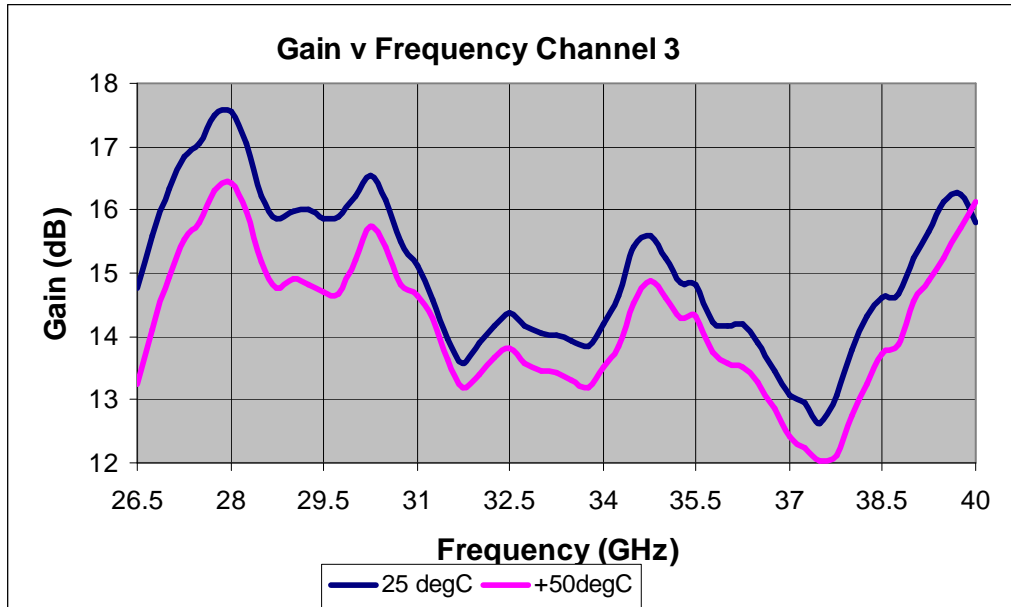
TYP. NOISE FIGURE:



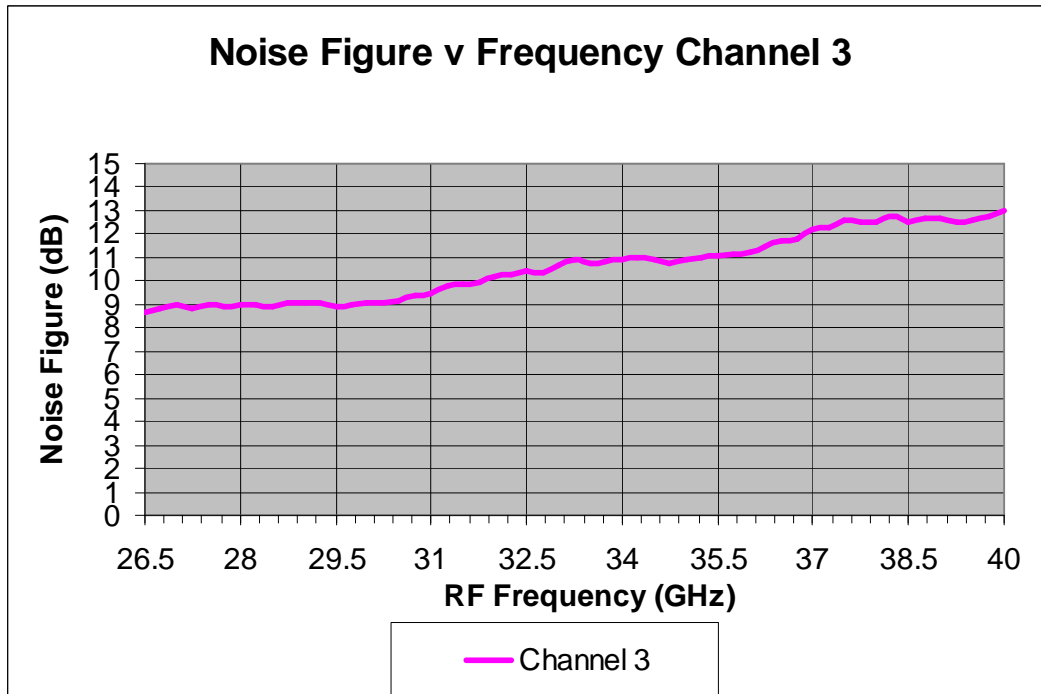
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CHANNEL 3

GAIN:

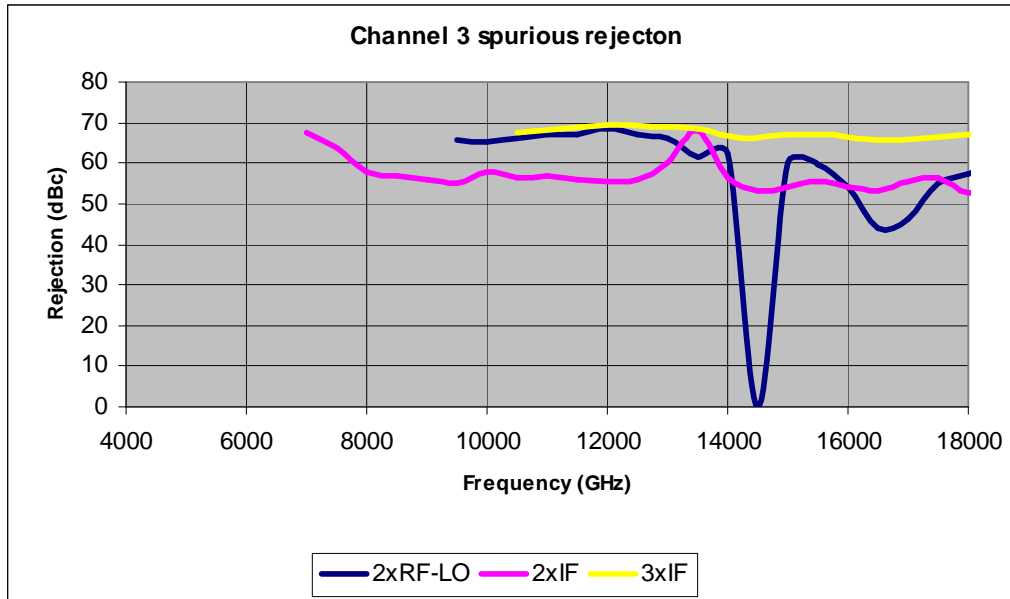


NOISE FIGURE:



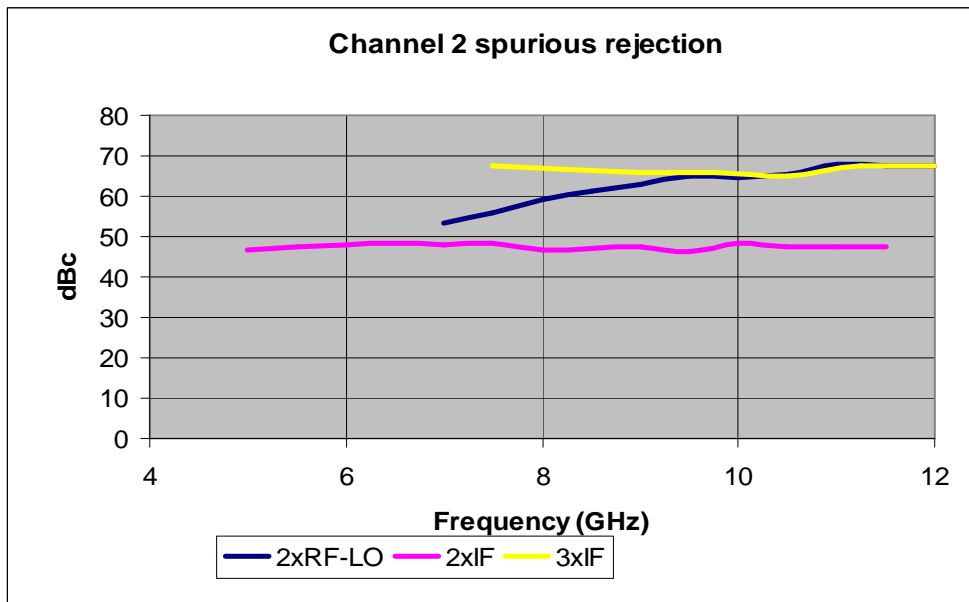
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HARMONICS/SPURIOUS:



VSWR:

TYP. HARMONICS/SPURIOUS:



TYP. VSWR:

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