BDC001A
C Band Block Downconvertor
3.4-4.2GHz to 950-1750MHz

The BDC001A is a high performance 'C' Band block down convertor designed to allow 'C' Band 3.4-4.2GHz to be down converted to 950-1750MHz. It features a phase locked loop (PLL) LO with low phase noise and excellent passband flatness. Linearity is exceptional and overall gain is >20dB. An out of lock alarm is provided as relay contacts.

Specification:

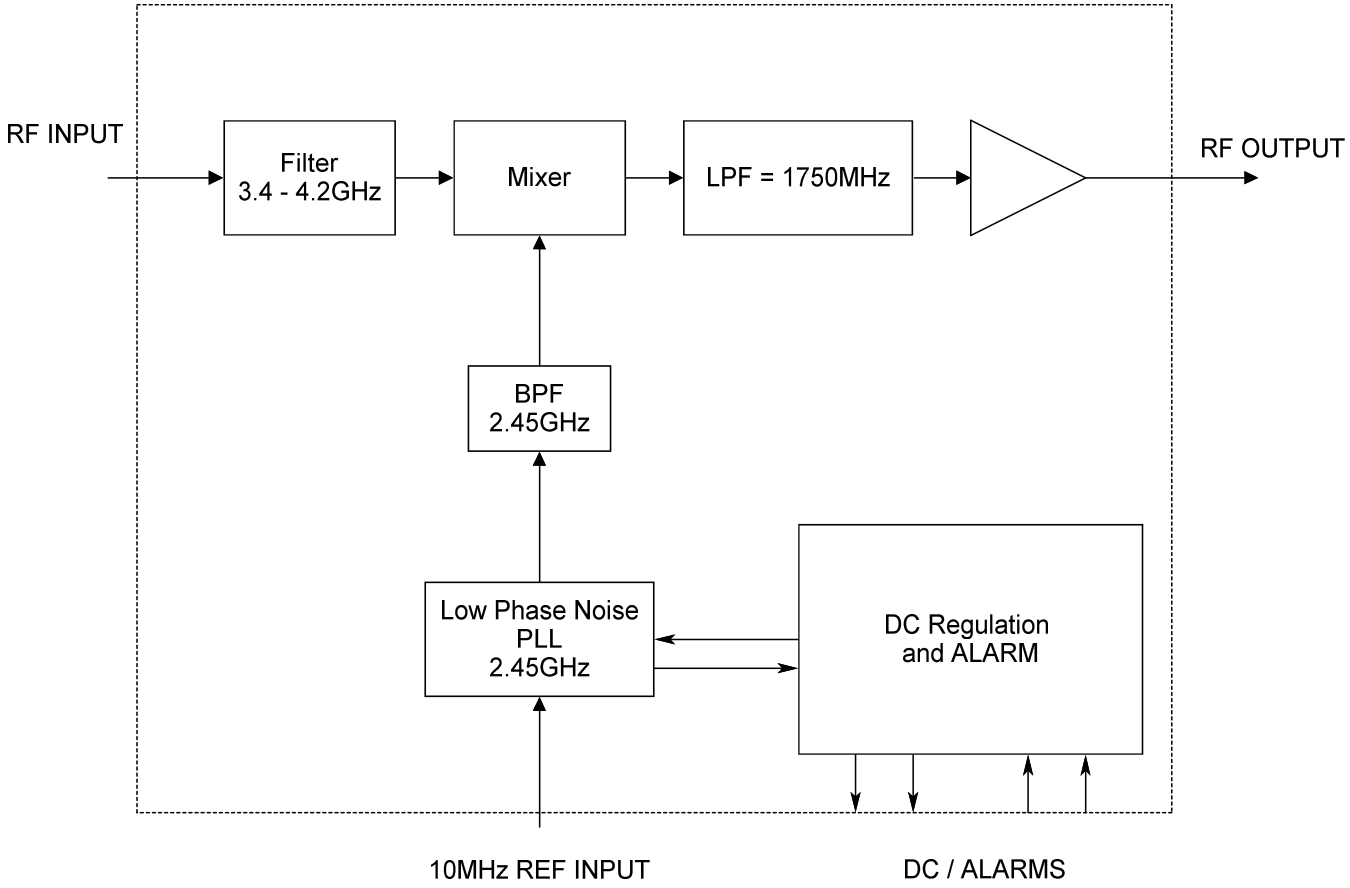
Parameter	Limits
Electrical:	
Input Frequency Range	3.4 – 4.2GHz
Output Frequency	950 – 1750MHz
Output Spectrum	Non – inverted
Local oscillator Frequency	2.45GHz, Phase locked to a 10MHz external Reference
LO Phase Noise	100Hz -75dBc/Hz 1kHz -90dBc/Hz 10kHz -90dBc/Hz 100kHz -100dBc/Hz 1MHz -125dBc/Hz
Spurious, Signal Related	< -60dBc in IF Band. (2 x 0dBm test tones 1MHz separation, @ o/p)
Spurious Non Signal Related	< -80dBm in IF Band
LO Leakage @ 2.45GHz	< -60dBm
LO Leakage @ 7.35Ghz	< -80dBm
LO Leakage @ 9.80GHz	< -80dBm
Gain minimum	>20dB, Typ 24dB
Gain Variation Full Band	+/-1dB
Gain Variation Per 40MHz	+/-0.25dB.
Gain Stability Per Week, Constant Temp	+/-0.5dB
Gain Stability Vs Temp	+/-1dB.
Power Output P1dB	>+16dBm, Typ. +18dBm
TOIP (Output)	> +30dBm
Noise Figure @23DegC	<12dB
VSWR Input (50 Ohms)	Max 1.50:1, (Return Loss < -14dB)
VSWR Output (50 Ohms)	Max 1.50:1, (Return Loss < -14dB)
Image Rejection	< -55dBc. (ref to wanted band)
Ref input Level @10MHz	-5dBm to +5dBm
Fault Alarm 'PLL out of lock'	Form-C Contact (100V/50mA), (Open form also available)
Voltage	12 – 16 VDC.
Current Quiescent	< 500mA

Mechanical:

RF Connectors. RF/IF/EXT REF	3 x SMA type Female
DC/Alarms	RFI Feedthrough solder pin
Case Size. (Masthead)	153 x 153 x 40mm (Excluding Connectors)
Weight:	<1kg
Material	Aluminium Main housing with aluminium cover

Environmental:

Temperature:	-10 to +60°C
Weatherproofing	Indoor use only.



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