



2 CHANNEL X-BAND TO 720 MHz DOWN CONVERTER

- **LOW PHASE NOISE**
- **FINE FREQUENCY STEP**
- **DUAL CONVERSION**
- **HIGH STABILITY INTERNAL REFERENCE**
- **HIGH RELIABILITY**
- **REMOTE / MANUAL CONTROL**

This double conversion down converter is intended for use in professional applications in X band such as satellite earth stations. BMCD32 includes dual high performance downconverter moduls with common low noise local oscillators, microprocessor based monitor and control circuitry, a front panel with control keys and status display and own AC / DC power supply. BMCD32 can be controlled from the front panel (manual control) and via Ethernet (remote control).

Picture:





2 CHANNEL X-BAND TO 720 MHz DOWN CONVERTER

Electrical characteristics:

Input Characteristics	
Frequency	8025-8400 MHz (effective frequency band 7725-8700MHz)
Frequency Step Size	100 kHz
Instantaneous Bandwidth	± 300 MHz
Impedance	50 Ohms
Return Loss	< 18 dB
LO Leakage	< - 100dBm @ RF input < -65dBm @ IF output
Noise Figure	8dB typical, 10dB max. at maximum gain
Output Characteristics	
Frequency	720 MHz
Bandwidth	± 300 MHz
No. of channels	2
No. of output ports	1 per channel, Level difference of outputs is < ± 1.5 dB
No. of output monitor ports	1 per channel (on front plate)
IF monitor port level	P _{IFout} – 10 dB
Isolation between o/p ports	80dB typical, but better than 65dB
Impedance	50 Ohms
Return Loss	18 dB or better
Gain	30 dB adjustable in 1 dB steps. Accuracy <+/- 2 dB.
Image Rejection	> 100dB.
Level stability	1 dB over day @ constant temp.
P _{1dB}	+10 dBm min.
Ripple over 600 MHz	<+/- 2 dB
Spurious	Signal related < -60 dBc at 0 dBm output Signal independent -90 dBm max.
External reference input	10 MHz, 0dBm +/-3dB automatic change-over
LO Stability (internal reference)	Better than +/-1 x 10 ⁻⁸ , +/-5 X 10 ⁻⁸ / day
Phase noise	-74dBc/Hz typ., -70dBc/Hz max @ 100 Hz -86dBc/Hz typ., -82dBc/Hz max. @ 1 kHz -89dBc/Hz typ., -85dBc/Hz max. @ 10kHz
Monitoring & Control	
Remote M & C Interface	TCP/IP Ethernet
Manual	on front panel via the keyboard

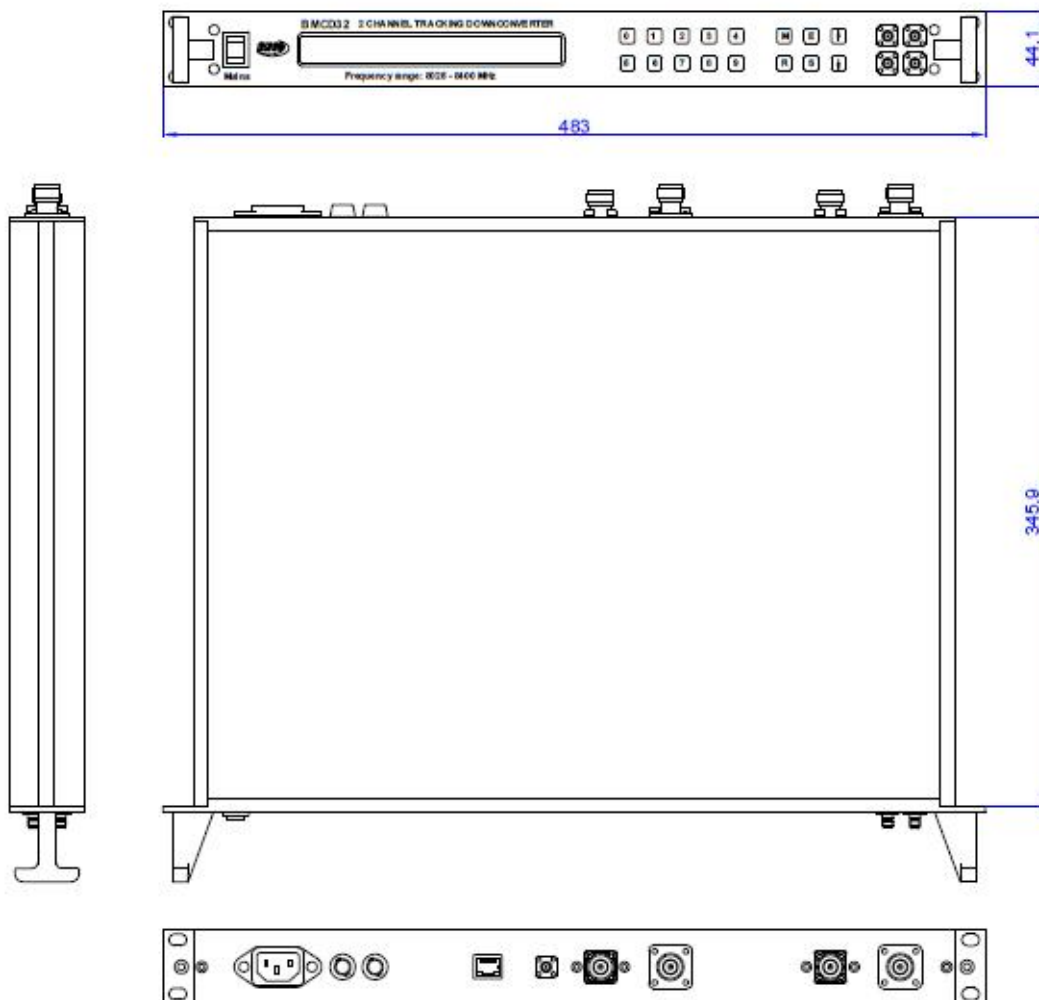


**2 CHANNEL X-BAND TO 720 MHz
DOWN CONVERTER**

General	
RF/IF Input/Output Connectors	N-type female, Rear Panel
EXT REF. input Connector	SMA type female, Rear Panel
IF1, IF2, LO1, LO2 Monitoring Connectors	SMA type female, Front Panel
M&C Connector	TCP/IP Connector (RJ45 type), Rear Panel
Power Supply	110-240V AC , 50Hz,
Operating Temperature	0 to 50 deg C
Humidity	Up to 95%
Mechanical	19" Rack, 1U high

Specifications are subject to change without notice.

Outline dimensions (mm)



 **BMCD32 Outline Drawing**