

**3 CHANNEL C BAND  
DOWNCONVERTER**

- **3 INDEPENDENT CHANNELS**
- **LOW PHASE NOISE**
- **FINE FREQUENCY STEP**
- **MINIMAL PHASE AND AMPLITUDE UNBALANCE**
- **INTENDED TO USE AT TT&C GROUND STATIONS**

**Electrical parameters**

Input Frequency Range	3625 – 4200 MHz
Conversion Type	Double conversion without inversion
Step Frequency	1 kHz
Number Of Channels	3
Output Centre Frequency	70 MHz
Number Of Outputs	2 outputs / channel
IF Bandwidth	± 20 MHz min, ± 30 MHz typ. @ -3 dB points
Isolation Between Input Ports Or Output Ports	60 dB min
Isolation Between Output Ports On Same Channel	45 dB min, 50 dB typ
Input And Output Impedance	50 Ω
VSWR At Input And Output Ports	better than 1.4:1
Local Leakage	-60 dBm max
Output Level At P <sub>1dB</sub> Compression Point	+10 dBm min.
Gain	40 dB ± 3 dB at each channel
Gain Adjustment	30 dB range in 0.5 dB steps
Noise Figure	10 dB max. @ max gain 12 dB max @ max gain-10 dB
Image Rejection	65 dB min
Level Stability Over Day At Constant Temperature	±1 dB
Group Delay Stability	< 5 ns
Gain Tracking Between Channels	1 dB
Phase Tracking Between Channels <sup>(1)</sup>	< 10° RMS
Spurious	
Signal Related	-60 dBc
Signal Independent	-80 dBm max
Phase Noise	
@ 100 Hz Offset	-74 dBc
@ 1 Khz Offset	-84 dBc
@ 10 Khz Offset	-92 dBc
Internal Reference Stability	±5 10 <sup>-8</sup> over temperature
External Reference Frequency	5 MHz or 10 MHz
External Reference Signal Level	-3 to +6 dBm typically
Reference Source	internal / external, auto change over
Controlled And Monitored Parameters	Frequency selection



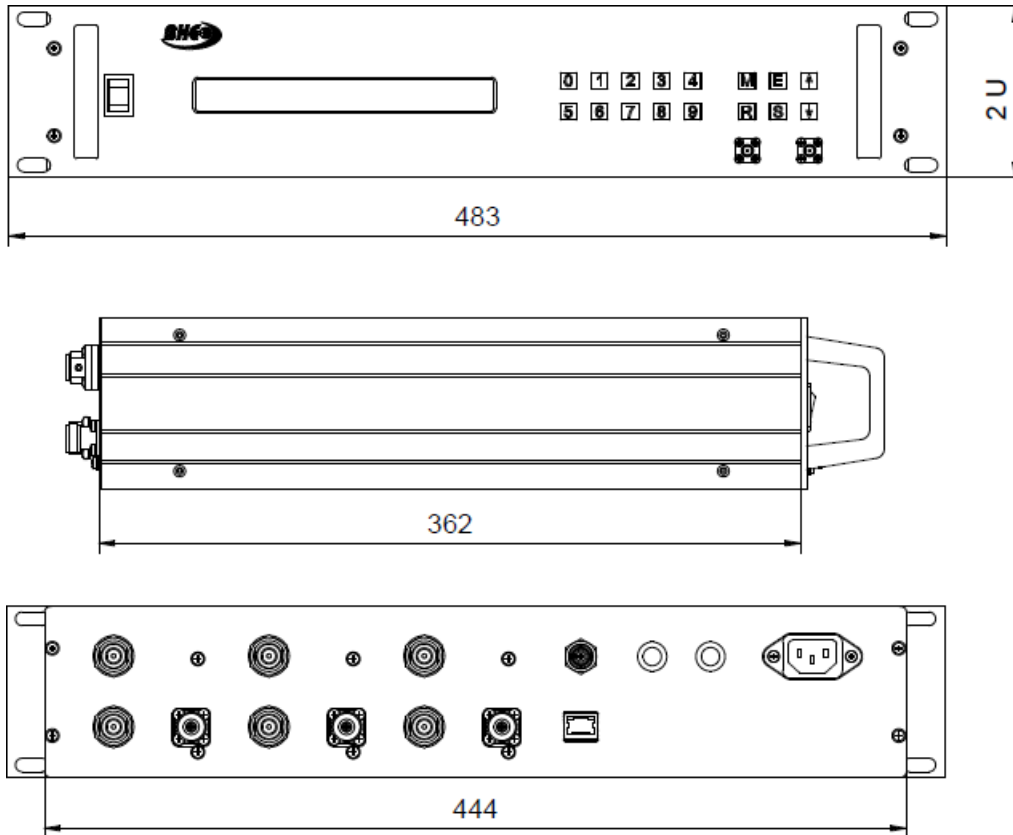
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	1 <sup>st</sup> and 2 <sup>nd</sup> local frequency External reference lock indication Reference source (int / ext) Channel gain Failures / Alarms
Local M&C Interface	LCD display and pushbuttons
Remote M&C Interface	TCP / IP with RJ-45 connection
RF And IF Connector Types	N female on rear panel
Local Monitor Connector Types	SMA female on front panel
Power Voltage	230 V AC $\pm$ 10%, 47-53 Hz
Operation Temperature Range (Ambient)	+5°C...+45°C
Humidity	95% max
Construction	19" wide, 2U height
Colour	Light Grey
MTBF	45 000 hrs

(1) After 1 hour warming up period with constant temperature in case of  $\pm$  10 MHz input RF frequency bandwidth.

\*Specifications are subject to change without notice

**Outline drawing (mm):**



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### Internal block diagram:

