

**Ku-BAND TEST LOOP TRANSLATOR**

- **LOW PHASE NOISE**
- **WIDE OPERATION FREQUENCY RANGE**
- **HIGH RELIABILITY**

This high performance test loop translator is intended for use in professional applications in Ku-band such as satellite earth stations. This device covers and supports the most commonly used frequency bands in the Ku range of the spectrum. BMCD125 is a professional test device to check the transmission performance of a ground station without actual satellite connection. Low phase noise parameter and clear spectrum, which is free from unwanted spurious and other phenomena help to evaluate the RF system performance. All key parameters can be controlled and monitored on an user interface via RS-422 and LAN.

Electrical parameters

Input Frequency Range	I. 12750 to 13500 MHz II. 12750 to 14000 MHz III. 13000 to 14500 MHz
Output Frequency Range	I. 10700 to 11450MHz II. 10950 to 12200MHz III. 10700 to 12200MHz
Internal Local Frequencies	
Local I.	2050 MHz
Local II.	1800 MHz
Local III.	2300 MHz
External LO signal	Selectable via Remote control (internal LO is switched off)
External LO level	+7dBm +/-2dB
Conversion Loss	20 dB typ., 25dB max.
Frequency conversion	Single Conversion, No inversion
Input/ Output Impedance	50 Ohm
Input / Output Port Return Loss	> 15 dB
Input / Output Isolation	> 60dB
Amplitude Response	± 0.5 dB over any 40 MHz ± 1.5 dB over output frequency band
Level Control	25 dB range in 0.5 dB step
Maximum input level	+8dBm max.
Phase Noise Characteristic	
@ 100 Hz	-75dBc/Hz typ., -70 dBc/Hz max.
@ 1 KHz	-90dBc/Hz typ., -85 dBc/Hz max.
@ 10 KHz	-95dBc/Hz typ., -90 dBc/Hz max.
@ 100 KHz	-110dBc/Hz typ., -105 dBc/Hz max.
Spurious (Inband)	Carrier related: -55dBc typ., -40dBc max. @ 0dBm input Non-Carrier related: -60dBm typ., -50dBm max.

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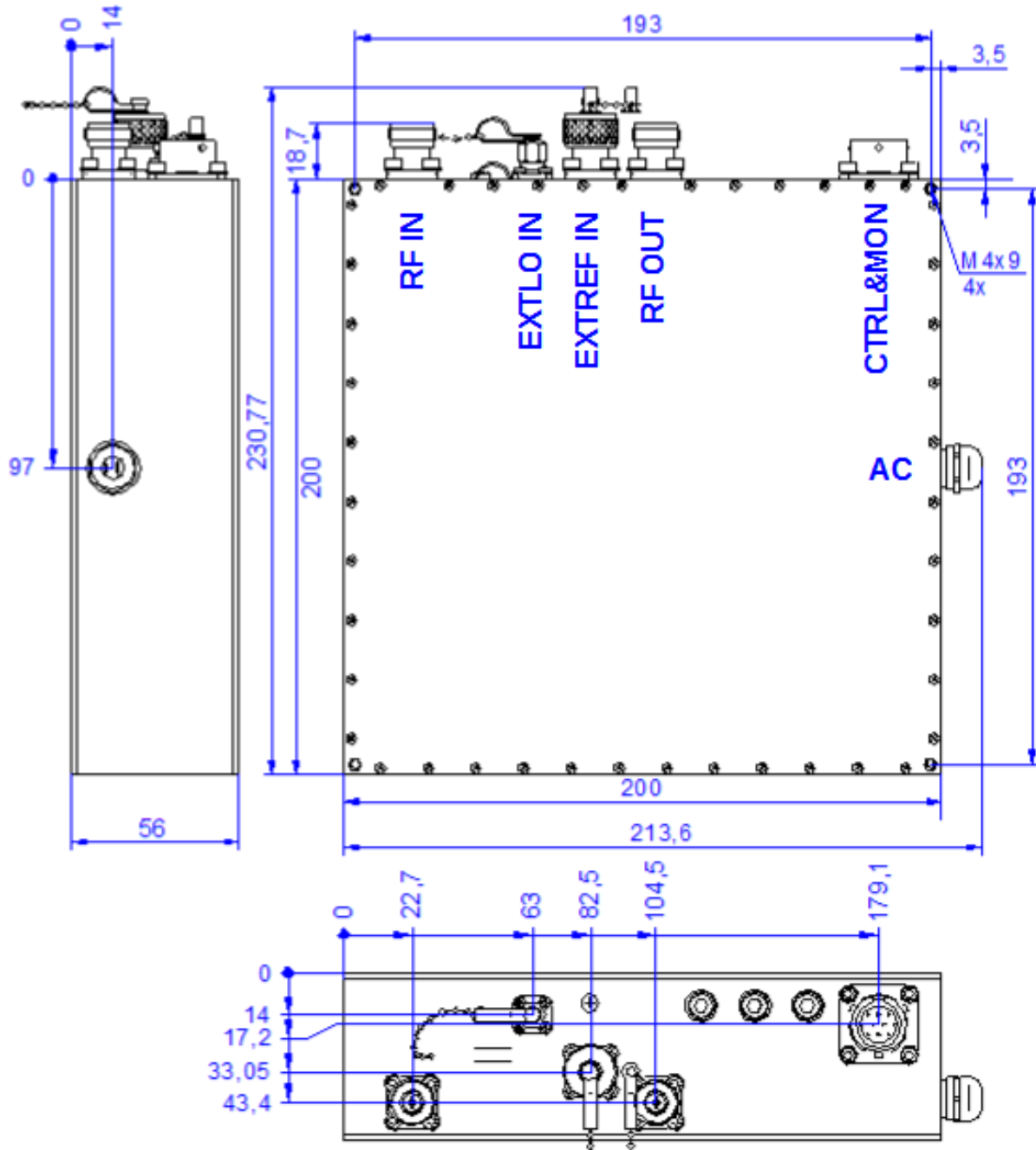
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Intermodulation distortion	-55dBc typ., -45dBc max. @ with two inband input signal at -13dBm
Reference Source	Internal / External with auto switch over
External Reference Frequency	10 MHz, N type female connector
External Reference Level	-3 dBm to + 3 dBm typ.
Frequency Stability	better than $\pm 1 \times 10^{-6}$ (over 0°C to +50°C range)
Mute rejection	≥ 50 dB
RF In/Out connector	N type female
Ext. LO input connector	SMA-female
Summary alarm	Yes, (Supply fault, LO Unlock)
Control Functions Via Remote Control Interface	Attenuation, Local frequency, Mute
Remote Control	RS-422 & LAN, circular connector (The unit is provided mating connector & 75m control cable)
Supply Voltage	100V to 250 V AC , 47-63 Hz
Operating Temperature Range	+0°C to +60°C
Altitude	up to 9000 feet MSL (3000 m)
Relative Humidity	up to 95%
Dimension	200 x 200 x 56 mm
Construction	Outdoor, IP67, Milled and painted aluminium box

*Specifications are subject to change without notice

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Outline Drawing



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