

**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. BMCDxx 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 a graphical user interface via Ethernet.

Electrical parameters

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|---------------------------------|------------------------------------------------------------------------------------------|
| Input Frequency Range | 13750 to 14500 MHz |
| Output Frequency Range | 10700 to 12750 MHz |
| Output Subbands | I. 12000-12750 MHz II. 11450-12200 MHz III. 10950-11700 MHz IV. 10700-11450 MHz |
| Maximum input level | 0dBm typ., +10dBm abs. max. |
| Local Frequencies | |
| Local 1 | 1750 MHz |
| Local 2 | 2300 MHz |
| Local 3 | 2800 MHz |
| Local 4 | 3050 MHz |
| Input/ Output Impedance | 50 Ohm |
| Input / Output Port Return Loss | < -18 dB |
| Input / Output Isolation | > 30dB |
| Conversion Loss | 20 dB typ. |
| Amplitude Response | ± 0.4 dB over any 40 MHz, |
| Level Control | within 35 dB range in 1 dB step |
| Group delay over 40MHz | Linear:0.02ns/Hz |
| Group delay ripple | 1nsec p-p |
| Phase Noise Characteristic | |
| @ 100 Hz | -70dBc/Hz typ., -65 dBc/Hz max. |
| @ 1 KHz | -90dBc/Hz typ., -85 dBc/Hz max. |
| @ 10 KHz | -95dBc/Hz typ., -90 dBc/Hz max. |
| @ 100 KHz | -100dBc/Hz typ., -96 dBc/Hz max. |
| (Reference Source | Internal / External with auto switch over |
| External Reference Frequency | 10 MHz, automatic selection, BNC female connector |
| External Reference Level | -6 dBm to + 6 dBm typ. |
| Spurious Level | |



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|------------------------------------------------|--------------------------------------------------------------|
| In-band | 50dBc typ., -40 dBc |
| Out-Of-Band | ≤ -50 dBm |
| 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 female |
| Summary alarm | Yes, (Supply fault, LO Unlock) |
| Control Functions Via Remote Control Interface | Attenuation, Local frequency, Mute |
| Remote Control | Ethernet, TCP/IP, via RJ-45 connector |
| Supply Voltage | 230 V AC ± 10 V, 47-63 Hz |
| Operating Temperature Range | +0°C to +50°C |
| Altitude | up to 9000 feet MSL (3000 m) |
| Relative Humidity | up to 95% |
| Construction | 19 inch , 1U high rack |

*Specifications are subject to change without notice