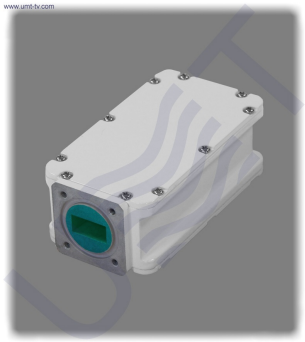
# BUC-KU002-12.8



BUC-Ku002-12.8 is block up-converter with fixed output power P1dB **0.2 W** (ALC power: 30 mW) and LO of **12.8GHz**.

Our BUC operates with up to **25 carriers** and has built-in reference of **10 MHz**;

has **ALC** with 25 dB range;

+ **LED status** indication at the rear side.

0.2 W Ku-band block up-converter with LO of 12.8 GHz BUC-Ku002-12.8 is designed for MVDS TV broadcasting systems application in accordance with DVB-S/S2 or DVB-C standards (use "Customized" button to choose needed parameters) and operates with up to 25 carriers. BUC-Ku002-12.8 has output flange of PBR120 type and can be used with regular radio-relay link (directional) or broadcast (sector and OMNI) antennas. BUC-Ku002-12.8 supports all modulation types up to 32APSK and 256QAM (you may choose the modulation type while filling the "customized equipment" form). BUC-Ku002-12.8 has the best linearity parameters to ensure the stability of the output frequency and low IMD3 level (these parameters are very important for high quality modulation, therefore the local oscillator of BUC-Ku002-12.8 is locked by PLL with internal frequency reference). BUC-Ku002-12.8 provides 13.75 - 14.75 GHz output frequency range (bandwidth in Ku-band) for 950-1950 MHz input frequency range (bandwidth in L-band).

**LO:** 12.8 GHz **IN**: 950 - 1950 MHz **OUT**: 13.75 - 14.75 GHz

**KEY FEATURES:**

- Output flange: PBR120
- Output power (P1dB, min): 0.2 W
- Output frequency range: 13.75 - 14.75 GHz
- Input frequency range: 950 - 1950 MHz
- Gain (min): 45 dB
- Highly stable internal frequency reference
- LO is locked by PLL with internal frequency reference
- IMD3 level at ALC output power (the lowest value): -45 dBc max
- Operates with up to 25 carriers
- Supported modulation types: up to 32APSK and 256QAM

| Input parameters: | |
|---|---|
| **Input frequency range** | 950 - 1950 MHz |
| **Input impedance** | 50 Ohm |
| **Input level, max** | -15 dBm |
| **Input VSWR, max** | 1.5 |
| | |

| | |
|---|---|
| **Input interface** | N-type Female |
| **ALC range, min** | 25 dB |
| **ALC threshold level** | -30 dBm |
| **Local oscilator:** | |
| **LO frequency** | 12.8 GHz |
| **LO phase noise:** | |
| **@1 kHz** | -80 dBc/Hz |
| **@10 kHz** | -85dBc/Hz |
| **@100 kHz** | -100dBc/Hz |
| **LO instability** | ± 2ppm |
| **Output parameters:** | |
| **Output frequency range** | 13.75 - 14.75 GHz |
| **Output power @P1dB** | 0.2 W |
| **ALC output power** | 30 mW |
| **Gain, min** | 45 dB |
| **IMD3 level at ALC output power, max** | -37 dBc |
| **Output interface** | Waveguide WR75, Flange PBR120 |
| **Output VSWR, max** | 2 |
| **Frequency response:** | |
| **Flatness over Full Band** | ±1.5 dB |
| **Spurious:** | |
| **In-band @P1dB, max** | -55 dBc |
| **Out-Band, max** | -30 dBm |
| **LO leakage at ALC output power, max** | -40 dBm |
| **Image rejection, min** | 60 dB |
| **Power supply:** | |
| **Input voltage** | 18 - 30 VDC, nominal 24 VDC |
| **Power consumption, max** | 6 W |
| **Environmental:** | |
| **Operating temperature** | -40°C to +50°C (-40°F to +122°F) |
| **Storage temperature** | -60°C to +80°C (-76°F to +176°F) |
| **Operating humidity** | 100%, non-condensing |
| **Mechanical:** | |
| **Dimensions (W x H x D)** | 60x40x130 mm |
| **Weight** | 0.55 kg |

*Taking into consideration that we (UMT LLC) are developer and system integrator, also do not stop on our technical growth and improvement, know that view of all our devices and equipment including their technical parameters may be different from pictures presented on website and parameters listed on each device webpage.*
***Note!*** *All details customer has to confirm in advance during ordering and before payment. Those parameters that were not specified and / or were not agreed while ordering will be implemented as basic at the discretion of the manufacturer. Each our customer has 1.5 year warranty and 7 year aftersales support for whole range of our products.*