

## BUC-KU20-13.05 V1.5



BUC-Ku20-13.05-v1.5 is block up-converter with fixed output power P1dB **20 W** (ALC power: 2000 mW) and LO of **13.05 GHz**.

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

and ALC with 25 dB range;

+ LED status indication at the rear side.

20 W Ku-band block up-converter with LO of 13.05 GHz BUC-Ku20-13.05-v1.5 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-Ku20-13.05-v1.5 has output flange of PBR120 type and can be used with regular radio-relay link (directional) or broadcast (sector and OMNI) antennas. BUC-Ku20-13.05-v1.5 supports all modulation types up to 32APSK and 256QAM (you may choose the modulation type while filling the "customized equipment" form). BUC-Ku20-13.05-v1.5 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-Ku20-13.05-v1.5 is locked by PLL with internal frequency reference). BUC-Ku20-13.05-v1.5 provides 14.0 - 15.0 GHz output frequency range (bandwidth in Ku-band) for 950-1950 MHz input frequency range (bandwidth in L-band).

**LO:** 13.05 GHz **IN:** 950 - 1950 MHz **OUT:** 14.0 - 15.0 GHz

## **KEY FEATURES:**

• Output flange: PBR120

• Output power (P1dB, min): 20 W

Output frequency range: 14.0 - 15.0 GHz
Input frequency range: 950 - 1950 MHz

• Gain (min): 63 dB

• Highly stable internal frequency reference

• LO is locked by PLL with internal frequency reference

• IMD3 level at ALC output power (the lowest value): -37 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 rage, min	25 dB
ALC threshold level	-30 dBm
Local Oscilator:	
LO frequency	13050 MHz
LO Phase noise:	
@1 kHz	-80 dBc/Hz
@10 kHz	-85 dBc/Hz
@100 kHz	-100 dBc/Hz
LO instability	± 2 ppm
Output parameters:	
Output frequency range	14000 - 15000 MHz
Output Power @P1dB	20 W
ALC Output Power	2000 mW
Gain, min	63 dB
IMD3 level at ALC Output Power, max	-37 dBc
Output interface	Waveguide WR75, Flange PBR120
Output VSWR, max	2
Output VSWR, max Frequency Re	
Frequency Res	sponse: ±1.5 dB
Frequency Res	sponse: ±1.5 dB
Frequency Ref Flatness over Full Band Spuriou In-band @P1dB, max	±1.5 dB s: -55 dBc
Frequency Res	sponse: ±1.5 dB s: -55 dBc -30 dBm
Frequency Ref Flatness over Full Band Spuriou In-band @P1dB, max	±1.5 dB s: -55 dBc
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min	# ±1.5 dB # # ±1.5 dB # # ±55 dBc # ±30 dBm # ±40 dBm # 60 dB
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max	# ±1.5 dB # ±1.5 dB # = 55 dBc # = -30 dBm # = -40 dBm # = 60 dB # # ply:
Frequency Ref Flatness over Full Band Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min	# ±1.5 dB # ±1.5 dB # = 55 dBc # = -30 dBm # = -40 dBm # = 60 dB
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max	### ##################################
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme	### ##################################
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme Operating temperature	# 1.5 dB  # 1.5 dB  # 1.5 dB  # 1.5 dBc  # -30 dBm  # -40 dBm  # 60 dB  # ply:  # 18 VDC - 30 VDC, nominal 24 VDC  # 45 W  # Ntal:  # -40°C to +50°C (-40°F to +122°F)
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme Operating temperature Storage temperature	# ±1.5 dB # ±1.5 dB # = 55 dBc # = -30 dBm # = -40 dBm # = 60 dB # ply: # = 18 VDC - 30 VDC, nominal 24 VDC # = 45 W # = 18 VDC # = 40°C to +50°C (-40°F to +122°F) # = -60°C to +80°C (-76°F to +176°F)
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme Operating temperature Storage temperature Operating humidity	### ##################################
Frequency Ref Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme Operating temperature Storage temperature Operating humidity  Mechanic	# ±1.5 dB  # ±1.5 dB  # = 55 dBc  # = -30 dBm  # = -40 dBm  # = 60 dB  # ply:  # # # = 18 VDC - 30 VDC, nominal 24 VDC  # = 45 W  # # = 18 VDC  # = -40°C to +50°C (-40°F to +122°F)  # = -60°C to +80°C (-76°F to +176°F)  # = 100%, non-condensing  # = 11.5 dB  # = -40°C dBm  # = -40°C to +50°C (-40°F to +122°F)  # = -60°C to +80°C (-76°F to +176°F)  # = 100%, non-condensing  # = -41.5 dB  # = -40°C to +50°C (-40°F to +176°F)  # = -40°C to +50°C (-76°F to +176°F)  # = -40°C to +50°C (-76°F to +176°F)
Frequency Reference Flatness over Full Band  Spuriou In-band @P1dB, max Out-Band, max LO leakage at ALC output power, max Image rejection, min  Power sup Input voltage Power consumption, max  Environme Operating temperature Storage temperature Operating humidity	### ##################################

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.