

## UPCONVERTER 10 GHz

- Frequency range 10 MHz-10 GHz
- 150 MHz bandwidth
- 10 to 400 MHz direct signal transmission
- 30 dB output level adjustment range

UPCONVERTER 10 GHz provides a transfer (controlled by software) of a spectrum bandwidth of up to 150 MHz, which is received at a signal input, to any point of spectrum bandwidth from 10 MHz to 10 GHz. A spectrum transfer is based on superheterodyne principle with three stages of the down-conversion. Due to this feature, a high level of carrier frequency suppression (up to -55 dBc) and of mirror channel suppression (up to -70 dBc) is achieved in the entire operating frequency range. Also "UPCONVERTER 10 GHz" has a unique feature to set the value of an output intermediate frequency in the range from 75 MHz to 400 MHz. This feature isn't presented in other devices of similar type. In addition, the device can transmit an input signal frequency from 10 to 400 MHz to an output without conversion. Due to presence of this feature a wide range of Russian and foreign made generators combined with "UPCONVERTER 10GHz" can be used as generators with increased output frequency range.

Holding "Informtest" offers to customers "MGKS" and "MGVCH" generators designed and manufactured by "Informtest", as well as the first Russian transceiver module "MT-1. All these instruments are fully compatible with the input characteristics of the "UPCONVERTER 10GHz". The "UPCONVERTER 10 GHz" along with generators manufactured by holding "Informtest", controlled by common software shell, presents a synthetic instrument - a turnkey solution for testing of RF devices and radio



UPCONVERTER 10 GHz VXI

channels.

Design of the "UPCONVERTER 10 GHz" assumes it to be used in enclosed mobile complexes used for field tests of communication equipment. For this purpose the instrument utilizes advanced solutions for an output signal phase noise reduction under conditions of increased vibrations and high temperature. The device has a temperature stabilized reference oscillator with ability to output a reference frequency signal. The instrument can also be used with external reference signal generator.

The control software of the "UPCONVERTER 10 GHz" is made in the standard VXI Plug & Play and independent of the version of the module. The software allows for automated calibration and verification of device's main characteristics.



UPCONVERTER 10 GHz LXI

### Specifications

Output frequency range (RF) 10 MHz to 10 GHz	Output frequency setting resolution: <ul style="list-style-type: none"> <li>• «INT» mode - 50 MHz (50 to 10 000 MHz)</li> <li>• «FRAC» mode - 1 MHz (50 to 10 000 MHz)</li> </ul>
Input frequency for external reference 100 MHz	Input frequency range (IF) 10...400 MHz
Input signal frequency setting resolution <ul style="list-style-type: none"> <li>• «Direct transition» mode - none</li> <li>• «Conversion» mode - 25 MHz (75 to 400 MHz)</li> </ul>	Input and output frequency tolerance using internal reference, not less than $10^{-7}$
IF bandwidth: <ul style="list-style-type: none"> <li>• "-1 dB" - 125 MHz</li> <li>• "-3 dB" - 150 MHz</li> </ul>	Maximum input/output power 0 dBm
Level error in full frequency range $\pm 1$ dB	Input VSWR in 50 Ohm system in full frequency range <2
Output level adjustment range 30 dB	Step attenuator range 1 dB
Non-harmonic distortions -55 dBc	Image suppression -70 dBc
SSB phase noise carrier -75 dBc @100 Hz	Supply <ul style="list-style-type: none"> <li>• UPCONVERTER 10 GHz VXI - VXIbus: +12 VDC</li> <li>• UPCONVERTER 10 GHz LXI - Ext. source: +12...+28 VDC</li> </ul>
Connectivity Remote control: <ul style="list-style-type: none"> <li>• UPCONVERTER 10 GHz VXI - VXI</li> <li>• UPCONVERTER 10 GHz LXI - Ethernet(TCP/IP) USB</li> </ul>	