Anritsu Advancing beyond **TMYTEK**

Solution to Extend Frequency Range up to 44 GHz using Signal Generators and Frequency Converters

Anritsu Vector Signal Generator MG3710E
TMYTEK Up/Down Converter UD Module, UD Box 5G

The Anritsu MG3710E is a cost-effective vector signal generator that can be equipped with up to two RF ports in a single unit. Each port can output RF signals with a frequency range of 100 kHz to 6 GHz and a maximum modulation bandwidth of 120 MHz from up to two waveform memories. In addition to outputting signals edited/created using the optional IQproducer™ signal-generation software, it can output arbitrary waveforms created with other tools, such as MATLAB.

TMYTEK's UD Box and UD Module series are bidirectional wideband frequency converters with built-in local signal sources. The UDM-0620 supports RF frequencies from 6 to 20 GHz and IF frequencies from 1 to 10 GHz, expanding the frequency range of your existing test equipment for developing and manufacturing tests of 5G and satellite products.

Combining Anritsu's Vector Signal Generator MG3710E with TMYTEK's frequency converters outputs signals up to 44 GHz using a simple, flexible, and cost-effective configuration.

Anritsu

TMYTEK

TMYTEK

Vector Signal Generator MG3710E

Frequency range: 100 kHz ~ 2.7/4.0/6.0 GHz (max. 2 RF ports installed.)

Maximum modulation bandwidth: 120 MHz

Maximum output level: +23 dBm (CW, 400 MHz ~ 3 GHz)

Up/Down Converter UD Module

RF range: 6 ~ 20 GHz

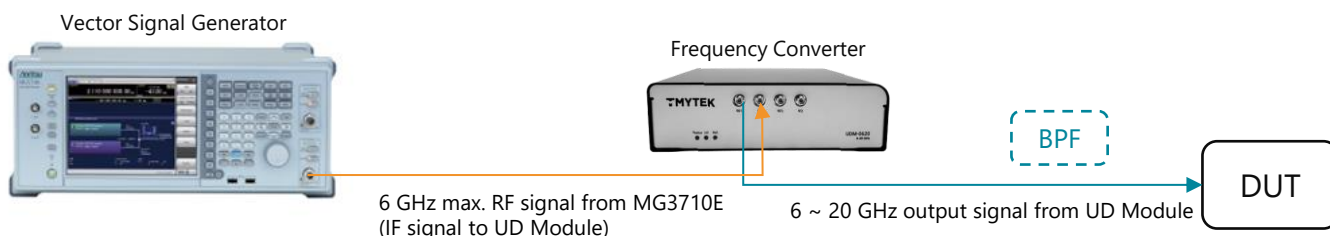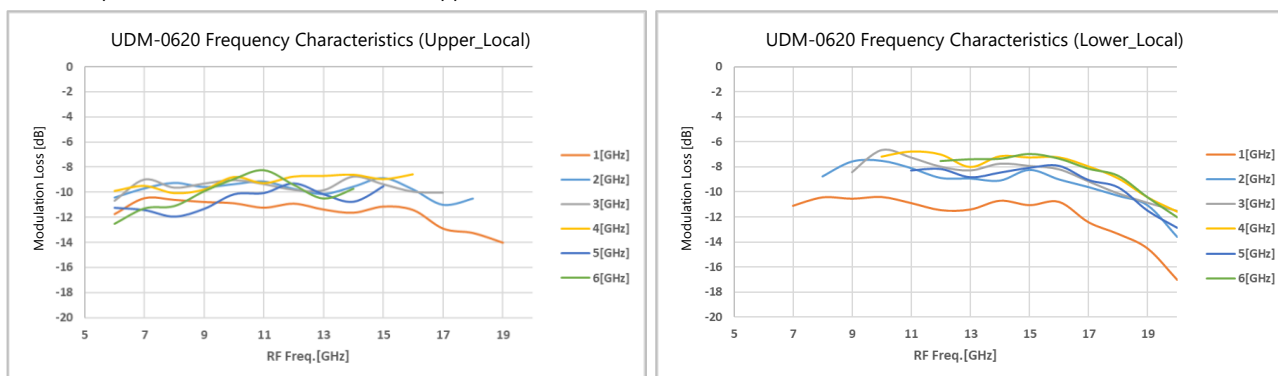IF range: 1 ~ 10 GHz

Maximum modulation bandwidth: 1000 MHz

Up/Down Converter UD Box 5G

RF range: 24 ~ 44 GHz

IF range: 0.1 ~14 GHz

Maximum modulation bandwidth: 1000 MHz

Setup

Vector Signal Generator

Frequency Converter

BPF

DUT

6 GHz max. RF signal from MG3710E (IF signal to UD Module)

6 ~ 20 GHz output signal from UD Module

*Mixer response RF = m × Local ± n × IF,   Upper Local = RF + IF, Lower Local = RF − IF

Measured conversion-loss frequency characteristics using Vector Signal Generator MG3710E and UD Module UDM-0620

The TMYTEK-designed TMXLAB Kit (TLK) GUI sets the RF, IF, and LO frequency via the USB connection between the MG3710E and frequency converter. The included API is compatible with other programming languages, such as LabVIEW, MATLAB, Python, C#, and C++.

- Harmonic/intermodulation warning
- Reference clock setting
- Easy IF and RF setting
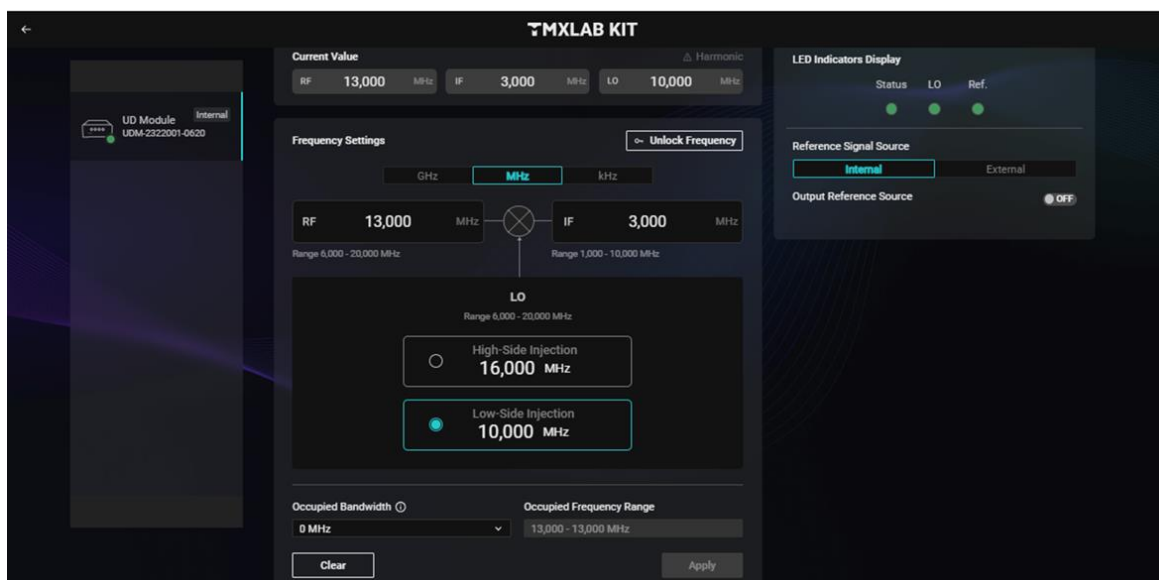
TMXLAB Kit (TLK)

Ordering Information

Model	Name	Notes
[Anritsu]		
MG3710E	Vector Signal Generator	
MG3710E-036	1stRF 100kHz to 6GHz	Supports 6 GHz max. as IF
MG3710E-048	Combination of Baseband Signal for 1stRF	Supports wanted + interference signal waveforms
[TMYTEK]		
UDM-0620	UD Module	RF range 6 ~ 20 GHz
UDB-D-G	UD Box 5G	RF range 24 ~ 44 GHz