



DS INSTRUMENTS

MX12000 INTEGRATED-LO MIXER



THE most compact and economical microwave integrated-mixer on the planet.

New from DS Instruments, the **MX12000** is a wideband high-performance [mixer](#) with **integrated 5GHz – 14GHz Local Oscillator**. LO frequency can be set with front controls, USB commands, or the provided windows PC application.

Using its ultra-low noise internal reference source the LO signal has extremely low phase noise. The MX12000 makes an extremely convenient **upconverter** or **downconverter** by eliminating the need for extra cabling and a separate bulky, expensive high-frequency signal source.

Now shipping **Rev5 with external 100MHz & 10MHz reference port!**

MX12000 X-band Mixer Features:

- USB powered from Laptop, battery-pack, Smartphone Charger, PC...
- Compact, rugged aluminum enclosure
- Bright and efficient OLED display
- Simple and effective control interface
- Industry standard virtual COM port serial commands
- Ultra-premium gold 50-ohm microwave SMA ports
- Internal precision ultra-low noise reference frequency source

RF Hybrid Mixer Specs:

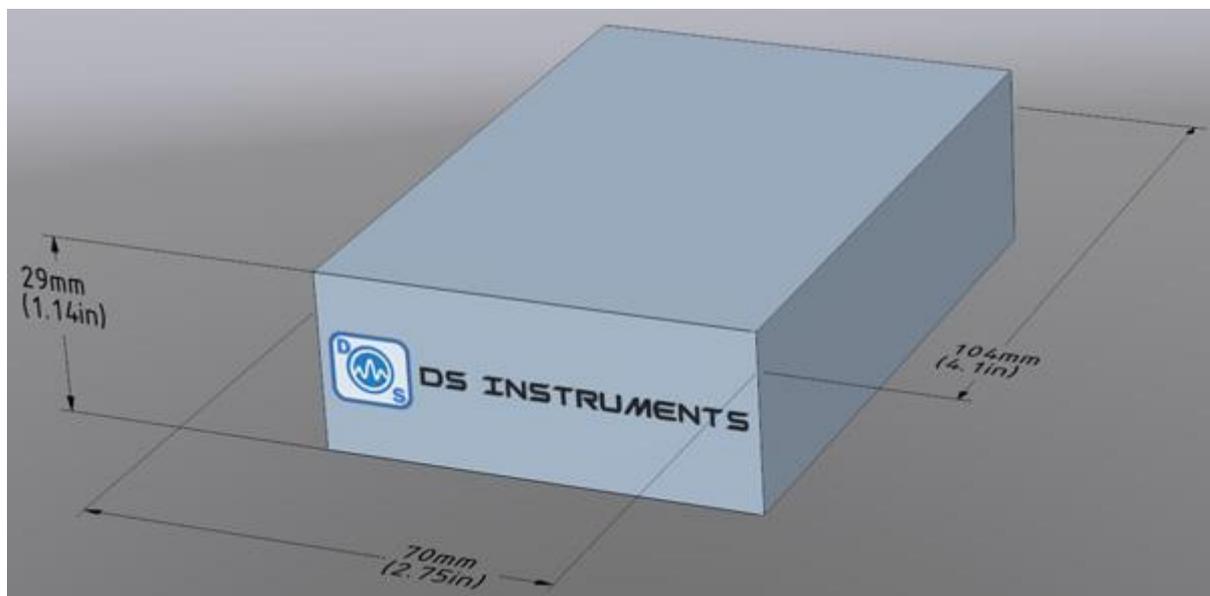
- Integrated **5 – 14GHz** programmable local oscillator
- IF range: **5 to 6000MHz**
- RF range: **5 – 14GHz**
- RF input P1dB > **+10dBm**
- Low LO leakage:< -30 dB typical
- LO phase noise at 12GHz (10KHz offset): 86dBc
- Low conversion loss (6-10dB typical)
- Return loss: > 10 dB
- Reference source: ± 280 PPB 10MHz TCXO & 100MHz VCXO

Typical Mixing Applications:

- General microwave lab applications
- Receiver development
- Communications applications
- Satellite uplink / downlink testing
- Radar systems
- Defense / electronic warfare



Enclosure Measurements:



Integrated Local Oscillator Phase Noise:

