

2020

Frequency Synthesizers



Micro Lambda Wireless

Frequency Synthesizers 50 MHz to 33 GHz

Micro Lambda Wireless offers a very extensive frequency synthesizer product line with standard designs covering from 50 MHz to 33 GHz. From wideband configurations that out perform some test equipment, Micro Lambda leads the market in YIG-Based synthesizers today. Our standard product offerings include configurations covering the 2-16 GHz range in 2 or 8 GHz tuning ranges with as low as 1 kHz step size, narrow band multi-loop configurations covering the 2 to 16 GHz frequency range with 2 to 4 GHz tuning bands and low phase noise performance, wide band multi-loop configurations covering 600 MHz to 3 GHz and 2-10 GHz with 1 Hz step size and 2 to 20 GHz low noise PXI based units with 1 kHz step size. This product guide is a quick “snap shot” of what is currently offered in our extensive synthesizer product line. For more detailed synthesizer specifications and new products, visit our web-site at www.microlambdawireless.com

6 to 21 GHz Wideband, Low Noise Synthesizers for 5G Applications

ML5G-Series



This series of frequency synthesizers have been designed specifically for the next generation of 5G test systems. With better than -50 dBc integrated phase noise over 2 kHz to 50 MHz offset frequencies at 18-20 GHz, this series of synthesizers are perfect for multiplying to the new millimeter wave bands designated for 5G. Excellent Error Vector Magnitude (EVM) performance can be obtained using this series of synthesizers. Three bands are available covering 6 to 18 GHz, 8 to 20 GHz and 10 to 21 GHz. +13 dBm power levels are provided.

Options include:

- Customer specified RF reference input frequencies covering 1–200 MHz
- RF connector location
- USB frequency control
- 1 kHz resolution

50 MHz to 21 GHz LUXYN™ VCO Based Frequency Synthesizer

MLVS-Series



LUXYN™ frequency synthesizers are extremely wide tuning range, 50 MHz to 21 GHz or 50 MHz to 10 GHz, VCO based synthesizers with industry leading phase noise and fast tuning speed. They are ideal for use as local oscillators in receiving systems, frequency converters, and test & measurement systems. Providing -125 dBc/Hz @ 10 kHz offset typical phase noise at a carrier frequency of 10 GHz, this series of frequency synthesizers set the standard in today's market. Tuning speed is 50 μSec full band and output power levels of +15 dBm are provided.

Options include:

- Customer specified frequency ranges
- Predetermined switching speed
- USB frequency control
- Better than 1 Hz resolution

2-20 GHz Synthesizer Test Box

MLBS-Series



MLBS Series Bench Test Synthesizers are available covering 600 MHz to 20 GHz. They are ideal for production test sets, lab tests and test equipment racks where generation of microwave signals are essential. Units are simply plugged into a standard electrical outlet and you are ready to go.

Standard models cover the 2-8 GHz, 8 to 20 GHz and 2 to 20 GHz frequency bands. All versions of the MLSP synthesizer family can be easily inserted into the test box. Tuning consists of a control knob, key pad, USB and Ethernet connections. Units provide +10 dBm to +13 dBm output power levels and are specified over the lab environment of +15°C to +55°C and are CE certified.

Units are provided with a power cord, USB cable, Ethernet cable, CD incorporating a user manual, quick start guide and PC interface software. All units are “Labview” compatible.

250 MHz to 32 GHz Single Slot PXI Low Noise Frequency Synthesizers

MLMS-Series



Frequency ranges of 0.25-6 GHz, 2-8 GHz, 6-13 GHz, 8-20 GHz and 28-32 GHz are standard in the product family. Special frequency ranges can be specified by the user. Units can be provided with external oscillator reference. 1 KHz frequency resolution is standard. Fullband tuning speeds of 1-3ms are standard. +10 to +13 dBm power levels are provided depending on frequency. Control is via 5 line SPI or standard USB. Size is 2.5" x 2.5" x 0.65" tall.

Options include:

- Customer specified output frequency ranges
- Special RF reference input frequencies available covering 1–200 MHz
- USB frequency control
- Frequencies to 32 GHz using doublers.

600 MHz-21 GHz PXI and Compact PCI sized Wideband Low Noise Frequency Synthesizers

MLSP-Series



Covering frequency ranges of 600 MHz to 2.5 GHz, 2-8 GHz, 6-18 GHz, 8-20 GHz and 2-20 GHz.. This series of synthesizers reduce the current synthesizer size while also providing low phase noise performance. Units can be provided with internal, external or both crystal references. 1 KHz frequency resolution is standard. Tuning is accomplished via 5 line serial or standard USB control. +8 dBm to +13 dBm RF power levels are provided depending on frequency band with an option for power leveling (-20dB) and/or a fixed level RF output.

Options include:

- Customer specified output frequency ranges
- Special RF reference input frequencies available covering 1–200 MHz
- RF connector location (side or front).
- USB frequency control
- Frequencies to 21 GHz



Micro Lambda Wireless was founded with the purpose of supplying the microwave community with technically superior products at reasonable prices with the highest regard to customer service and quality. Products include YIG oscillators, YIG bandpass & band reject filters, frequency multipliers and frequency synthesizers.

Micro Lambda Wireless is the largest independent supplier of YIG components in the world! Over 20,000 YIG-based components and assemblies delivered annually.

For additional information on Micro Lambda Wireless, please contact the factory or one of our regional sales offices.

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