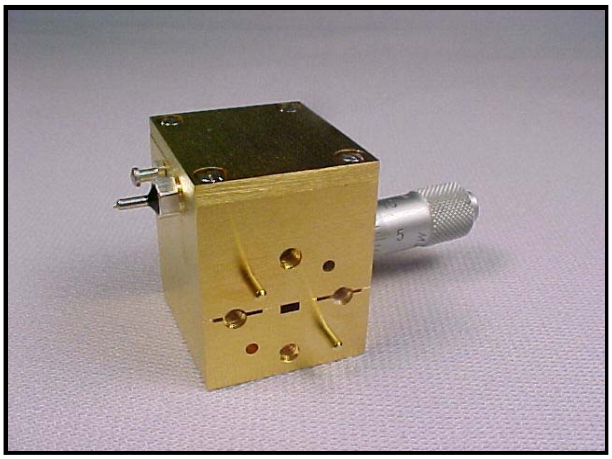
CERNEX, Inc.

Mechanically Tuned Gunn Diode Oscillators

FEATURES:

- High output power
- Wide mechanical tuning range
- Bias tuning ability
- Excellent frequency stability
- Low AM and FM noise



APPLICATIONS:

- Test benches
- Local oscillators
- Multiplier drivers
- Subsystems

DESCRIPTION:

CMG Series

Cernex CMG Series mechanically tuned Gunn oscillators combine proprietary circuit design capability and experience with either GaAs or InP Gunn diode to cover the frequency range of 18 to 110 GHz in seven waveguide bands. The oscillators are especially designed for high output power, wide mechanical tuning range, bias tuning ability and low AM/FM noise characteristics. The standard oscillators are equipped with a micrometer driver, which enables convenient frequency tuning and reliable frequency resetting. The oscillators are ideally suited for bench test sources, while a self-locking screw can be provided instead of the micrometer driver for system integration. The oscillators can be supplied with optional integrated isolator, voltage regulator and temperature heater. While waveguide is the standard interface, the oscillators are available with coaxial interface as an option.

SPECIFICATIONS:

Frequency Range (GHz)	Output Power Range (dBm)	Mechanical Tuning (GHz)	Bias Voltage Range (Volts)	Bias Current Range (A)	Waveguide Size	Frequency Stability (MHz/ºC)	Power Stability (dB/ºC)
18-26.5	10-27	0.05-5	4-12	0.2-2.5	WR-42	-2.0	-0.02
26.5-40	10-26	0.05-6	4-12	0.3-2.5	WR-28	-2.5	-0.02
33-50	10-25	0.05-5	4-11	0.3-2.0	WR-22	-3.0	-0.03
40-60	10-24	0.05-5	3-10	0.3-2.0	WR-19	-4.0	-0.03
50-75	10-23	0.05-5	3-10	0.3-1.5	WR-15	-4.5	-0.03
60-90	10-20	0.05-7	3-10	0.25-1.5	WR-12	-5.0	-0.03
75-110	10-19	0.05-10	4-10	0.25-1.5	WR-10	-6.0	-0.03

Note: Isolator, Heater, regulator, K(F) & 2.4mm (F) are also available as options.

HOW TO ORDER:

Specify Model Number CMG-WG LF HF PP - XX ← To be specified by the factory

WG Size

Output Power

Low EndFrequency

High End Frequency

Example: To order a 59-60 GHz mechanically tuned Gunn oscillator with WR-15 waveguide interface, and a 17 dBm output power, specify CGM-15596017-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE