



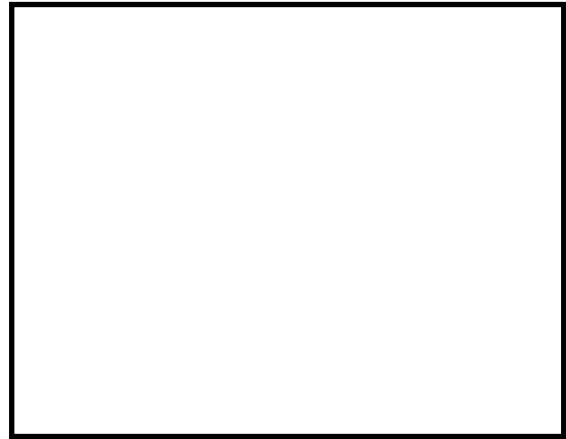
## Injection Locked Gunn Diode Oscillators

### FEATURES:

- ❖ High output power
- ❖ Moderate gain and bandwidth
- ❖ CW operation
- ❖ Frequency up to 110GHz

### APPLICATIONS:

- ❖ Power amplification
- ❖ Local oscillators
- ❖ Multiplier drivers
- ❖ Subsystems



### DESCRIPTION:

### CIL Series

**CIL** series CW injection-locked Gunn oscillators are alternatives to HEMT device and IMPATT diode based stable amplifiers, especially at high millimeterwave frequencies. The operating frequency and power output of these oscillators are up to 110 GHz and 24 dBm. The spectrum purity of the output signal is injected signal dependent. There is an output free running signal in the absence of an input injection signal. The oscillators are provided with integral circulators and optional DC voltage regulator. An optional heater is provided to achieve better temperature stability. For higher gain, broader locking bandwidth and higher output, multi-stage and multi-diodes configurations are used.

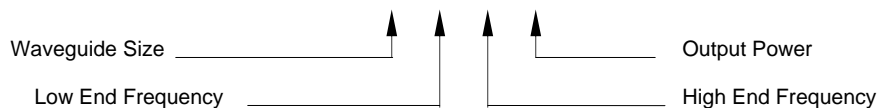
### SPECIFICATIONS:

Frequency Range (GHz)	Input Power Range (dBm)	Output Power (dBm, Min)	Locking Bandwidth (GHz, Max)	Bias Voltage Range (Volts)	Bias Current Range (A)	Waveguide Size
26.5-40	0 to 10	24	1.5	4-12	0.3-2.5	WR-28
33-50	0 to 10	23	2.0	4-11	0.3-2.0	WR-22
40-60	0 to 10	22	2.0	3-10	0.3-2.0	WR-19
50-75	0 to 10	20	2.0	3-10	0.3-1.5	WR-15
60-90	0 to 10	19	2.0	3-10	0.25-1.5	WR-12
75-110	0 to 10	19	2.0	4-10	0.25-1.5	WR-10

### HOW TO ORDER:

Specify Model Number

CIL-WG LF HF PP - XX ← To be determined by the Factory



**Example:** To order a 59-60 GHz injection locked Gunn oscillator with WR-15 waveguide interface, and 17 dBm output power, specify CIL-15596017-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE