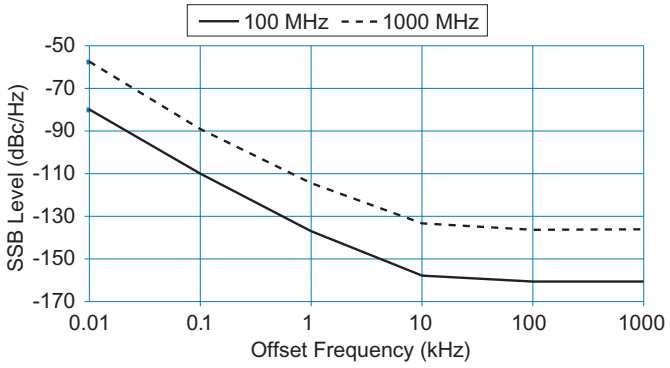
Features:

- Fundamental and Multiplied Crystal Oscillators
- Wide Frequency Range Available
- Extended Temperature Range Option
- Frequency Trim Option
- RF Gating Option

Electrical Specifications

Frequency Range:	60 to 1440 MHz
Frequency Set Accuracy (+ 25 °C):	± 10 ppm
Frequency Stability vs Temp.:	± 30 ppm
Aging Rate:	5 ppm first year
Power Output:	See Tables
Phase Noise:	See Figure 1
Spurious:	- 80 dBc, typical
Harmonics & Sub-harmonics: Note 1	
+ 8 to + 10 dBm Output: Note 2	- 30 dBc, maximum
+ 16 to + 19 dBm Output: Note 2	- 25 dBc, maximum
Output VSWR:	1.5:1, typical
Supply Voltage:	+ 12 to 18 volts
DC Current:	80 mA, typical

Typical Phase Noise



Environmental Specifications

Standard Operating Temperature: 0 to + 70 °C

Mechanical Specifications

See Outlines

Options

- 002 Extended Operating Temperature: - 54 to + 85 °C

- 010 Frequency Trim:
Adds a mechanical adjustment for trimming the frequency to within ± 1 ppm at room temperature.

- 100 Fast Gating: Note 3
Oscillator remains on at all times.
All other active stages are gated on and off.

On/Off Ratio:	40 dB, typical
Turn On/Off Time:	100 ns, maximum
Gate:	TTL (“1” ON, “0” OFF)

- 200 High Isolation Gating: Note 3
All active stages are gated on and off.

On/Off Ratio:	Infinite
Turn On/Off Time:	5 ms, maximum
Gate:	TTL (“1” ON, “0” OFF)

Note 1: “Sub-harmonics” refers to the unwanted multiples of the fundamental crystal used.
Note 2: See Tables III and IV for models with - 60 dBc harmonics and sub-harmonics.
Note 3: Options -100 and -200 cannot be combined.

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Table I Connector Versions (Package A)

Frequency Range (MHz)	Model Number	Output Power (dBm, min.)
60 - 120	10-000-9100-000	+ 10
121 - 360	10-100-9200-000	+ 10
361 - 720	10-100-9300-000	+ 10
721 - 1440	10-100-9400-000	+ 10
60 - 120	10-000-9500-000	+ 19
121 - 360	10-100-9600-000	+ 19
361 - 720	10-100-9700-000	+ 19
721 - 1440	10-100-9800-000	+ 18

Table II PCB Versions (Package B)

Frequency Range (MHz)	Model Number	Output Power (dBm, min.)
60 - 120	10-000-9101-000	+ 10
121 - 360	10-100-9201-000	+ 10
361 - 720	10-100-9301-000	+ 10
721 - 1440	10-100-9401-000	+ 10
60 - 120	10-000-9501-000	+ 19
121 - 360	10-100-9601-000	+ 19
361 - 720	10-100-9701-000	+ 19
721 - 1440	10-100-9801-000	+ 18

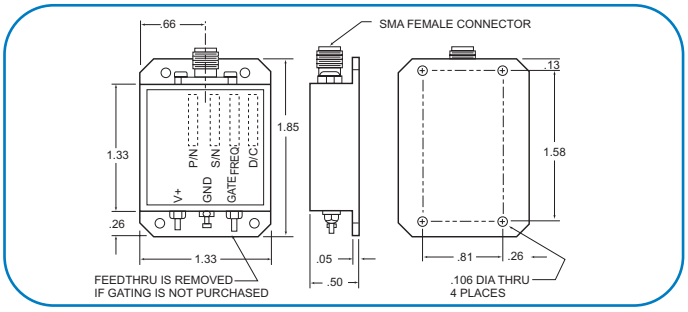
Models with Improved Harmonics & Sub-Harmonics
(- 60 dBc from DC to three times the output frequency)
Table III Connector Versions (Package C)

Frequency Range (MHz)	Model Number	Output Power (dBm, min.)
60 - 120	10-000-9110-000	+ 8
121 - 360	10-100-9210-000	+ 8
361 - 720	10-100-9310-000	+ 8
721 - 1440	10-100-9410-000	+ 8
60 - 120	10-000-9510-000	+ 17
121 - 360	10-100-9610-000	+ 17
361 - 720	10-100-9710-000	+ 17
721 - 1440	10-100-9810-000	+ 16

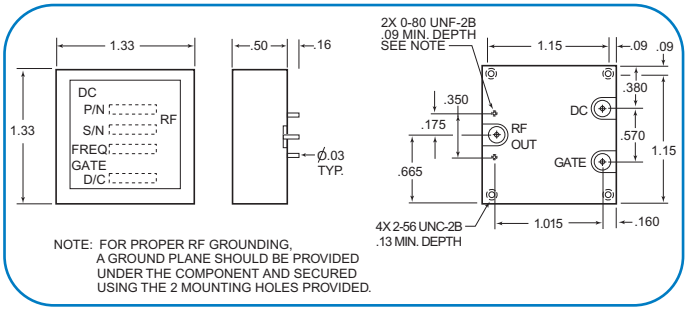
Table IV PCB Versions (Package D)

Frequency Range (MHz)	Model Number	Output Power (dBm, min.)
60 - 120	10-000-9111-000	+ 8
121 - 360	10-100-9211-000	+ 8
361 - 720	10-100-9311-000	+ 8
721 - 1440	10-100-9411-000	+ 8
60 - 120	10-000-9511-000	+ 17
121 - 360	10-100-9611-000	+ 17
361 - 720	10-100-9711-000	+ 17
721 - 1440	10-100-9811-000	+ 16

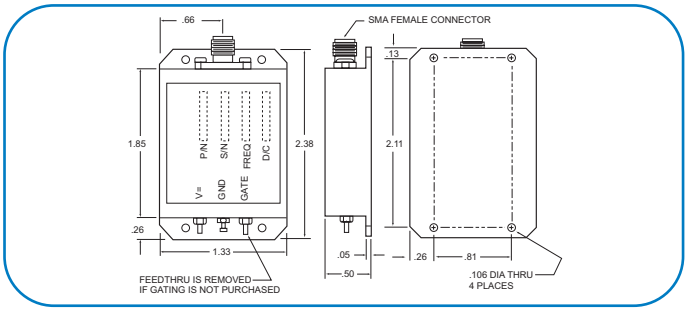
Example:
Model Number 10-000-9100-112, 100.0000 MHz is a 100 MHz connector-type oscillator with fast gating, frequency trim, and extended perating temperature. If the only option required is frequency trim, the Model Number is 10-000-9100-010, 100.0000 MHz.



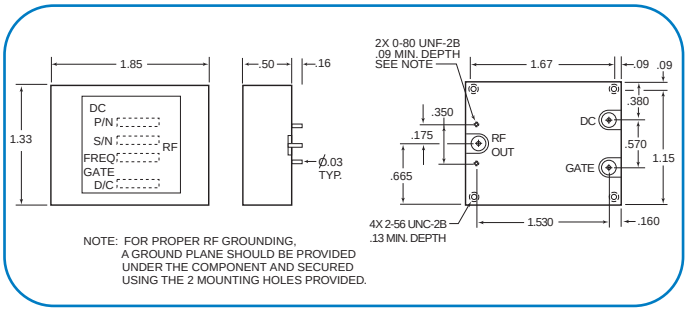
Package A



Package B



Package C



Package D

Options:
Options are designated by the last three digits of the model number, with - 000 indicating no options.
Ordering Information:
Specify the model number, options (if any), and the exact operating frequency in MHz to the fourth decimal place.

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