



Miniature AT-Cut Crystal Oscillators

Fundamental and Multiplied Crystal Oscillators

10-001 & 10-101 Series

These miniature AT-Cut crystal oscillators are designed for rugged printed circuit through hole and surface mount applications. A wide range of frequencies and options are available.

Electrical Specifications

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

Environmental Specifications

Standard Temperature Range: 0 to +70°C

Mechanical Specifications

See Outlines

Options

See Table I

Note 1: "Sub-harmonics" refers to the unwanted multiples of the fundamental crystal used.

Note 2: For non-gated units the gate terminal must be left open (no connection).

Note 3: Option -100 and -200 can't be purchased together.

Table I

- 100 Gating ^{Note 2 & 3}		- 200 Gating ^{Note 2 & 3}	
Oscillator remains on at all times, all other active stages are gated on and off.		All active stages are gated on and off	
On/Off ratio:	40 dB, typical	On/Off ratio:	Infinite
Turn On/Off time:	100 ns, maximum	Turn On/Off time:	5 ms, maximum
Gate:	TTL ("1" ON, "0" OFF)		
- 002 Extended Temperature Range		-54 to +85°C	

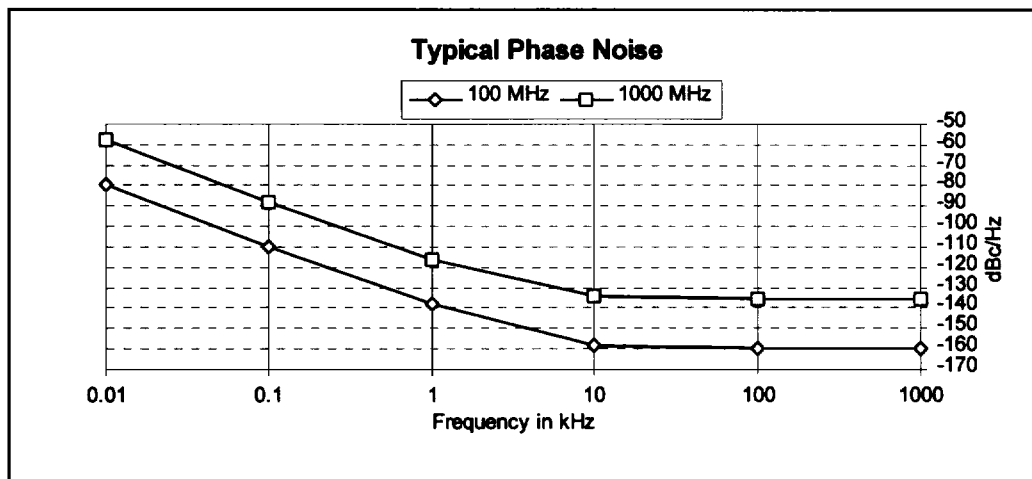


Figure 1



Miniature AT-Cut Crystal Oscillators

Model Number	Frequency Range	Outline Drawing
10-001-9100-000	60 - 120 MHz	A
10-101-9200-000	121 - 360 MHz	A
10-101-9300-000	361 - 720 MHz	A
10-101-9400-000	721 - 1440 MHz	A
10-001-9500-000	60 - 120 MHz	B
10-101-9600-000	121 - 360 MHz	B
10-101-9700-000	361 - 720 MHz	B
10-101-9800-000	721 - 1440 MHz	B

Ordering Information

Specify the model number and the exact operating frequency in MHz to the fourth decimal place.

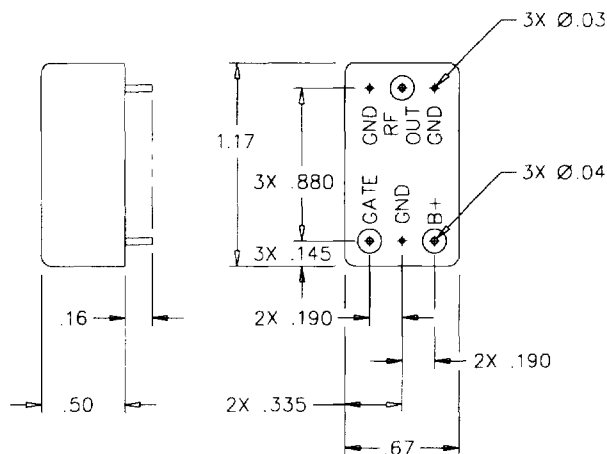
Example: Model 10-101-9800-002, 724.1534 MHz.

Options

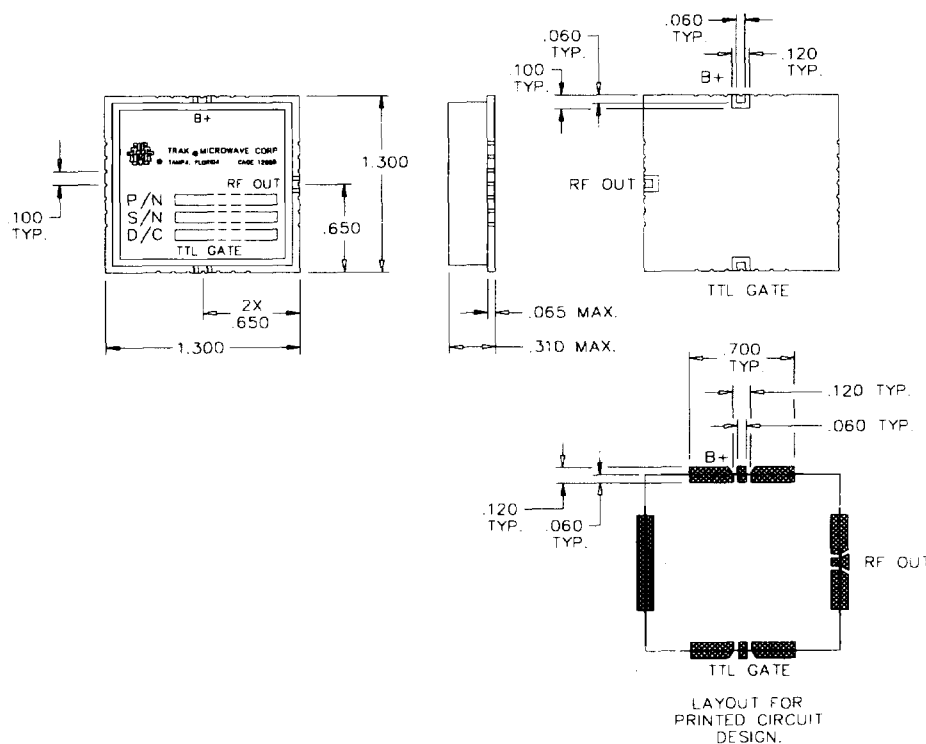
Several options are offered with these oscillators and are designated by the last three digits of the model number, with -000 indicating no options.

Example:

A 100 MHz oscillator with extended temperature and high speed gating would have the following model number:
10-001-9100-102, 100.0000 MHz.



Outline A



Outline B