

XO5030 Series

1.5x1.5 inch, 12.0 Volt, HCMOS/Sinewave, OCXO



- Low phase noise and aging
- Ideal for Stratum 3E, PCS base stations, Synthesizers, and test equipment

Model	Frequency (MHz)	Temperature Range (°C)	Temperature Stability	Aging Yearly	Output	Supply Voltage
5030 AT-Cut	10	0 to +70	$\pm 5 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	Sine	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
5031 AT-Cut	10	0 to +70	$\pm 5 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	HCMOS	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
5032 SC-Cut	10	0 to +70	$\pm 1 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	Sine	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
5033 SC-Cut	10	0 to +70	$\pm 1 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	HCMOS	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
5035 SC-Cut	10	0 to +70	$\pm 2 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	Sine	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
5036 SC-Cut	10	0 to +70	$\pm 2 \times 10^{-8}$	$\pm 5.0 \times 10^{-8}$	HCMOS	+12 Vdc $\pm 5\%$ osc (+14 V ± 1.5 V oven)
Options	3 to 50	See Table		Consult Factory		+12 Vdc to 24 Vdc

Additional Specifications

Aging per day	$\pm 1.0 \times 10^{-9}$ for SC-cut
Warm-up power	8 watts max
Power	1.5 watt max @ 25°C steady state
Warm-up time	To within ± 0.01 ppm of Fo in 5 min @ 25°C (SC-cut)
External tuning voltage	$> \pm 1$ ppm $< \pm 3$ ppm
Tuning voltage range	0 to 7 volts
Slope	Positive

Phase Noise

	(SC-cut) 5035-5036 (dbc/Hz)	(SC-cut) 5032-5033 (dbc/Hz)	(SC-cut) 5030-5031 (dbc/Hz)
1 Hz	-90	-90	-80
10 Hz	-130	-120	-105
100 Hz	-150	-135	-135
1 kHz	-160	-145	-145
10 kHz	-160	-152	-152

Sinewave

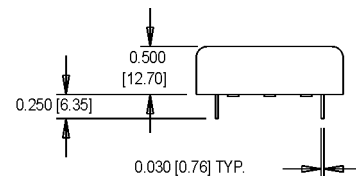
Load	50 Ω
Output Level	+3 dBm ± 3 dBm

HCMOS

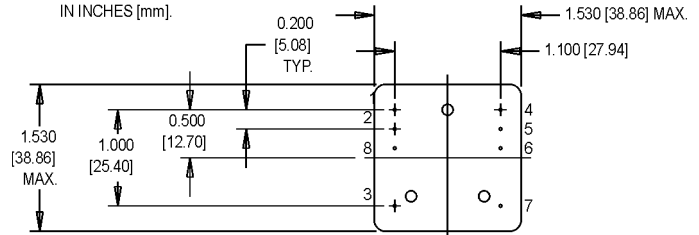
Duty cycle	40/60
Load	2 Gates

Optional Temperature Ranges and Frequency Stabilities

Temperature Range (°C)	SC-Cut Stability Limits	AT-Cut Stability Limits
0 to +50	$\pm 5 \times 10^{-9}$	$\pm 3 \times 10^{-8}$
0 to +70	$\pm 1 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
-10 to +70	$\pm 2 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
-30 to +70	$\pm 3 \times 10^{-8}$	$\pm 5 \times 10^{-8}$
-40 to +70	$\pm 4 \times 10^{-8}$	$\pm 8 \times 10^{-8}$
-55 to +70	$\pm 6 \times 10^{-8}$	$\pm 1 \times 10^{-7}$

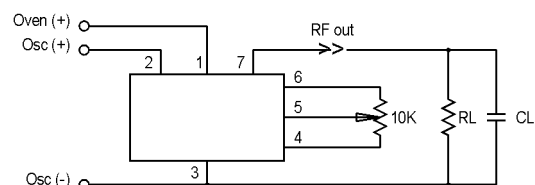


DIMENSIONS ARE SHOWN
IN INCHES [mm].



Pin Connections

PIN	FUNCTION
1	Oven Supply (+)
2	Oscillator Supply (+)
3	Case Ground & Supply Return
4	Case Ground
5	Frequency Adjust
6	Vref
7	RF Output
8	Oven Ready (Optional)



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