OX6180MRHA-D3-2-100.000-5

ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION		VALUE		UNIT
			Min.	Typ.	Max.	
Nominal Frequency	f_o			100.000		MHz
Supply Voltage	V_s	Vs ±5% @ +25°C	4.75	5.0	5.25	V
Power Consumption	P_s	Steady state, @ +25°C			1.5	W
	P_w	During warm-up, @ +25°C			4	W
Initial Frequency Accuracy	$\Delta f/f_0$	@+25°C after 15mins power on ref to nominal frequency with nominal Vc	-100		+100	ppb
Frequency Stability vs. Temp.	$\Delta f/f_0$ (T_a)	Ta= -40°C…+85°C, ref to +25˚C	-20		+20	ppb
Aging, after 30 days of operation	$\Delta f/\Delta t_d$	Daily	-0.8		+0.8	ppb
	$\Delta f/\Delta t_y$	1st Year	-100		+100	ppb
	$\Delta f/\Delta t_y$	Over 10 Years	-0.35		+0.35	ppm
Frequency Stability vs. Supply Voltage	$\Delta f/f_0$ (ΔV_{CC})	Ta=+25°C, Vs±5%	-5		+5	ppb
Frequency Stability vs. Load	$\Delta f/f_0$ (ΔRL)	Ta=+25°C, load±5%	-5		+5	ppb
G-Sensitivity		Per axis			1	ppb/g
Operating Temperature Range	Ta		-40		+85	˚C

SINE WAVE OUTPUT CHARACTERISTICS

PARAMETER	SYMBOL	CONDITION		VALUE		UNIT
			Min.	Typ.	Max.	
Sine wave output level	V_O		+11	+13	+15	dBm
Load				50		Ω
Harmonics					-30	dBc
Spurious					-80	dBc

PHASE NOISE

PARAMETER	SYMBOL	CONDITION		VALUE		UNIT
			Min.	Typ.	Max.	
@10 Hz Offset	£ (Δ f)				-90	dBc/Hz
@100 Hz Offset	£ (Δ f)				-120	dBc/Hz
@1 kHz Offset	£ (Δ f)				-147	dBc/Hz
@10 kHz Offset	£ (Δ f)				-168	dBc/Hz
@100 kHz Offset	£ (Δ f)				-175	dBc/Hz
@1 MHz Offset	£ (Δ f)				-177	dBc/Hz

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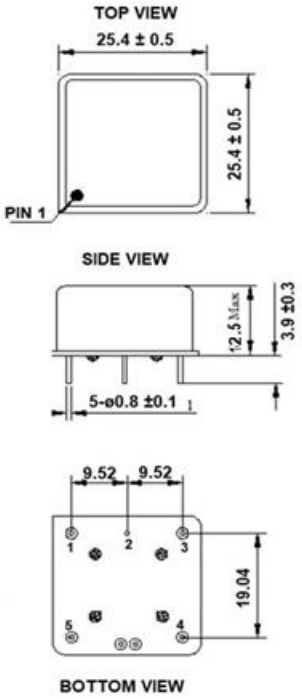
ENVIRONMENTAL MECHANICAL CONDITIONS

Storage Temperature range	-55°C to +105°C
Mechanical Shock	MIL-STD-202, Method 213, Test Condition J (30 g, 11 ms half-sine)
Vibration	MIL STD 202, Method 201, (0.06" Peak to Peak, 10 to 55 Hz)
Humidity	MIL STD 202, Method 103, Test Condition B (95% at 40°C for 96 hours)
Radiation Tolerance	This Product will be built with: a. Active and Passive Components which will meet or exceed AEC criterium b. All Active Components integrated in the design will have been up-screened to 30krad level of Level of Gamma radiation per Mil-Std-883 Method 1019 Condition C c. All materials utilized will be traceable to the manufacturer's Lot# and Date Code d. The Oscillator will meet criterion of JEDEC_JESD234 for proton irradiation for 200 to 50MeV e. Swept Quartz will be utilized when specified by the customer at additional charge f. Additional Screening or Lot Acceptance Testing can be customized / specified with additional charges

MECHANICAL DIMENSIONS AND PIN FUNCTIONS



PIN	SYMBOL	FUNCTION
1	OUT	RF Output
2	GND	Case Ground
3	NC	Not Connected
4	NC	Not Connected
5	Vs	Supply Voltage

OX6180MRHA-D3-2-100.000-5

	Signed	Date
Created	CP	May 12, 2025
Eng. approved	GR	May 12,2025
Rev A Initial Release **B** GR, June 02, 2025 Updated the Environmental Mechanical Conditions		