OX6580MK-D3-20-100.000-12

ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION		VALUE		UNIT
			Min.	Typ.	Max.	
Nominal Frequency	f_o			100.000		MHz
Supply Voltage	V_s	Vs ±5%, at +25°C	11.4	12	12.6	V
Input Current	Is	Steady state, at +25°C		125		mA
	Iw	During warm-up, at +25°C			400	mA
Initial Frequency Accuracy	$\Delta f/f_0$	At +25°C after 15mins power on ref to nominal frequency with nominal Vc	-200		+200	ppb
Frequency Stability vs. Temp.	$\Delta f/f_0$ (T_a)	Ta= -40°C…+85°C, ref to +25˚C	-200		+200	ppb
Aging, After 30 Days of Operation	$\Delta f/\Delta t_d$	Daily	-2		+2	ppb
	$\Delta f/\Delta t_y$	1st Year	-200		+200	ppb
	$\Delta f/\Delta t_{10y}$	10 years including 1st year	-0.6		+0.6	ppm
Frequency Tuning Range (Slope = Positive)	$\Delta f/f_C$ (ΔV_C)	V_C = 0 V ref to center voltage			-1.0	ppm
		V_C = 5 V center voltage	-0.2		+0.2	ppm
		V_C = 10 V ref to center voltage	+1.0			ppm
Linearity					10	%
Input Impedance	Zin	At V_C input	100			kΩ
Frequency Stability vs. Voltage	$\Delta f/f_0$ (ΔV_{CC})	T_a=+25°C, Vs±5%	-10		+10	ppb
Frequency Stability vs. Load	$\Delta f/f_0$ (ΔRL)	T_a=+25°C, load±5%	-5		+5	ppb
G-Sensitivity		Per axis		1		ppb/g
Warm-up Time		< ±500 ppb, ref to 1 hour +25°C			3	min
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		+9		+15	dBm
Load			45	50	55	Ω
Harmonics					-30	dBc
VSWR				2:1		
Spurious					-80	dBc

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PHASE NOISE

PARAMETER	SYMBOL	CONDITION		VALUE		UNIT
			Min.	Typ.	Max.	
@10 Hz Offset	£ (Δ f)			-100	-97	dBc/Hz
@100 Hz Offset	£ (Δ f)			-134	-132	dBc/Hz
@1 kHz Offset	£ (Δ f)			-162	-160	dBc/Hz
@10 kHz Offset	£ (Δ f)			-176	-175	dBc/Hz
@100 kHz Offset	£ (Δ f)			-178	-175	dBc/Hz

ENVIRONMENTAL MECHANICAL CONDITIONS

Storage Temperature range	-55°C to +95°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)

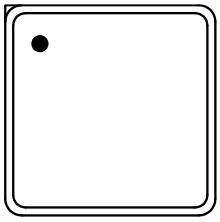
A RAMI TECHNOLOGY Company

RoHS Compliant

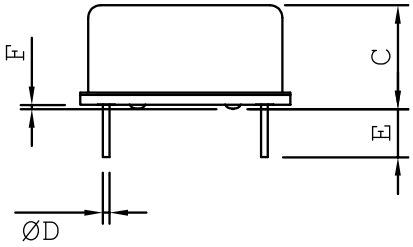
Oven Controlled Crystal Oscillator

OX6580MK-D3-20-100.000-12

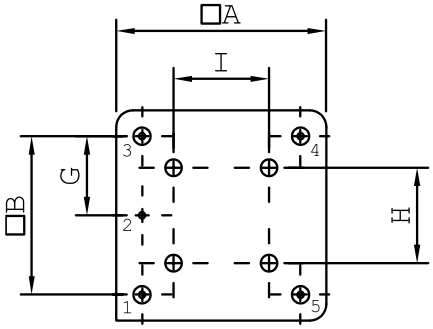
MECHANICAL DIMENSIONS AND PIN FUNCTIONS



TOP VIEW



SIDE VIEW



BOTTOM VIEW

PIN	SYMBOL	FUNCTION
1	OUT	RF Output
2	GND	Case/Ground
3	Vc	Voltage Control
4	DNC	Do No Connect
5	Vs	Supply Voltage

DIMENSIONS (mm)			
	Min	Typ.	Max
A	25.4		25.7
B	18.8	19.0	19.2
C		12.7	
D	0.7		0.9
E	4.6		6.2
F	0.4		0.7
G	9.4		9.6
H			NA
I			NA

	Signed	Date
Created	AR	March 06, 2026
Eng. approved	TT	March 6, 2026
REV A	**Initial Release**	