

### OX6580MK-HZ-0.5-10.000-12

#### ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Nominal Frequency	$f_0$		10.000			MHz
Supply Voltage	$V_s$	$V_s \pm 5\%$ , at +25°C	11.4	12	12.6	V
Input Current	$I_s$	Steady state, at +25°C			125	mA
	$I_w$	During warm-up, at +25°C			300	mA
Initial Frequency Accuracy	$\Delta f/f_0$	At +25°C after 15mins power on ref to nominal frequency with nominal $V_c$	-70		+70	ppb
Frequency Stability vs. Temp.	$\Delta f/f_0 (T_a)$	$T_a = -20^\circ\text{C} \dots +70^\circ\text{C}$ , ref to +25°C	-5		+5	ppb
Aging, After 30 Days of Operation	$\Delta f/\Delta t_d$	Daily	-0.3		+0.3	ppb
	$\Delta f/\Delta t_y$	1 <sup>st</sup> Year	-50		+50	ppb
	$\Delta f/\Delta t_{10y}$	10 years including 1 <sup>st</sup> year	-200		+200	ppb
Short Term Stability	ADEV( $\tau$ )	Still air, after 1 hour, $T_a = +25^\circ\text{C}$ , $\tau = 1$ s			2	ppt
		Still air, after 1 hour, $T_a = +25^\circ\text{C}$ , $\tau = 10$ s			5	ppt
		Still air, after 1 hour, $T_a = +25^\circ\text{C}$ , $\tau = 100$ s			10	ppt
Frequency Tuning Range (Slope = Positive)	$\Delta f/f_c (\Delta V_c)$	$V_c = 0$ V ref to center voltage			-0.3	ppm
		$V_c = 2.5$ V center voltage	-0.07		+0.07	ppm
		$V_c = 10$ V ref to center voltage	+0.3			ppm
Linearity					10	%
Input Impedance	$Z_{in}$	At $V_c$ input	40			k $\Omega$
Voltage Reference	$V_f$		4.85	5.0	5.15	V
Warm-up Time		< $\pm 100$ ppb, ref to 2 hour +25°C			5	min
Operating Temperature Range	$T_a$		-20		+85	°C

#### SINE WAVE OUTPUT CHARACTERISTICS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Sine Wave Output Level	$V_o$		+10	+12	+16	dBm
Load				50		$\Omega$
Harmonics					-30	dBc
Spurious					-80	dBc

**OX6580MK-HZ-0.5-10.000-12****PHASE NOISE**

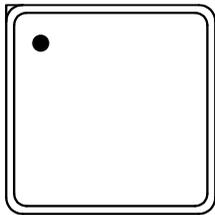
PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
@1 Hz Offset	£ ( $\Delta f$ )			-112	-108	dBc/Hz
@10 Hz Offset	£ ( $\Delta f$ )			-140	-135	dBc/Hz
@100 Hz Offset	£ ( $\Delta f$ )			-155	-150	dBc/Hz
@1 kHz Offset	£ ( $\Delta f$ )			-164	-158	dBc/Hz
@10 kHz Offset	£ ( $\Delta f$ )			-168	-160	dBc/Hz
@100 kHz Offset	£ ( $\Delta f$ )			-168	-165	dBc/Hz

**ENVIRONMENTAL MECHANICAL CONDITIONS**

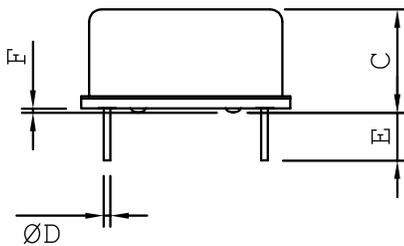
Storage Temperature range	-55°C to +95°C
Mechanical Shock	MIL-STD-202, Method 213, Test Condition J (30 g, 11 ms half-sine)
Vibration	MIL-STD-202, Method 201, (0.06" Peak to Peak, 10 to 55 Hz)
Humidity	MIL-STD-202, Method 103, Test Condition B (95% at 40°C for 96 hours)

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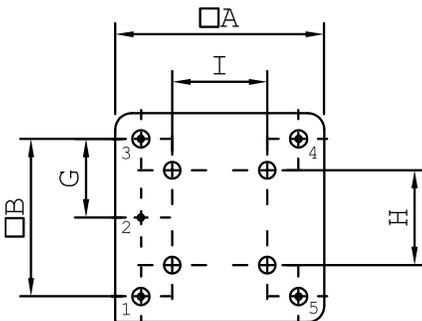
#### MECHANICAL DIMENSIONS AND PIN FUNCTIONS



TOP VIEW



SIDE VIEW



BOTTOM VIEW

PIN	SYMBOL	FUNCTION
1	OUT	RF Output
2	GND	Case/Ground
3	Vc	Voltage Control
4	Vf	Reference Voltage
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	February 26, 2026
Eng. approved	TT	February 27, 2026
REV A	Initial Release	

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