

OXL4516MK-D3-5-100.000-3.3

ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Nominal Frequency	f_0		100.000			MHz
Supply Voltage	V_s	$V_s \pm 5\%$, at +25°C	3.165	3.3	3.465	V
Power Consumption	P_s	Steady state, at +25°C			0.3	W
	P_w	During warm-up, at +25°C			1.2	W
Initial Frequency Accuracy	$\Delta f/f_0$	At +25°C after 15mins power on ref to nominal frequency with nominal V_c	-200		+200	ppb
Frequency Stability vs. Temp.	$\Delta f/f_0 (T_a)$	$T_a = -40^\circ\text{C} \dots +85^\circ\text{C}$, ref to +25°C	-50		+50	ppb
Aging, After 30 Days of Operation	$\Delta f/\Delta t_d$	Daily	-2		+2	ppb
	$\Delta f/\Delta t_y$	1 st Year	-200		+200	ppb
	$\Delta f/\Delta t_{10y}$	10 years including 1 st year	-500		+500	ppb
Frequency Tuning Range (Slope = Positive)	$\Delta f/f_c (\Delta V_c)$	$V_c = 0$ V ref to center voltage			-0.8	ppm
		$V_c = 1.4$ V center voltage	-0.2		+0.2	ppm
		$V_c = 2.8$ V ref to center voltage	+0.8			ppm
Linearity					10	%
Input Impedance	Z_{in}	At V_c input	25			k Ω
Voltage Reference	V_f		2.7	2.8	2.9	V
Frequency Stability vs. Voltage	$\Delta f/f_0 (\Delta V_{cc})$	$T_a = +25^\circ\text{C}$, $V_s \pm 5\%$	-10		+10	ppb
Frequency Stability vs. Load	$\Delta f/f_0 (\Delta R_L)$	$T_a = +25^\circ\text{C}$, load $\pm 5\%$	-50		+50	ppb
G-Sensitivity		Per axis			1	ppb/g
Warm-up Time		$< \pm 100$ ppb, ref to 1 hour +25°C			1	min
Operating Temperature Range	T_a		-40		+85	°C

OXL4516MK-D3-5-100.000-3.3**CMOS OUTPUT CHARACTERISTICS**

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Output Levels	V _{OL}				+0.4	V
	V _{OH}		+2.4			V
Duty Cycle	DC	Load = 15pF	45	50	55	%
Load				15		pF
Spurious					-70	dBc

PHASE NOISE

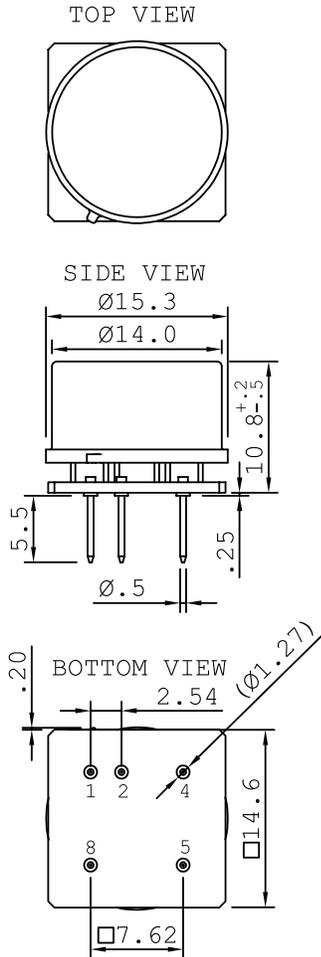
PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
@10 Hz Offset	£ (Δf)			-95	-90	dBc/Hz
@100 Hz Offset	£ (Δf)			-125	-120	dBc/Hz
@1 kHz Offset	£ (Δf)			-155	-150	dBc/Hz
@10 kHz Offset	£ (Δf)			-165	-160	dBc/Hz
@100 kHz Offset	£ (Δf)			-165	-160	dBc/Hz
@1 MHz Offset	£ (Δf)			-165	-160	dBc/Hz

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)

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MECHANICAL DIMENSIONS AND PIN FUNCTIONS



PIN	SYMBOL	FUNCTION
1	Vc	Voltage Control
2	Vf	Reference Voltage
4	GND	Ground
5	OUT	RF Output
8	Vs	Supply Voltage

Unit: mm

	Signed	Date
Created	AR	February 27, 2026
Eng. approved	TT	March 2, 2026
REV A	Initial Release	

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