Datasheet

AXIOM25

OCXO IN DIL14 PACKAGE, SINE WAVE OUTPUT

FEATURES

- DIL14 holder size 20.7 x 13.1 x 8.5 mm.
- Sine wave output
- Till +/-50 ppb stability over temperature range
- Standard Frequencies 10 / 12.8 / 16.384 / 20.0 MHz

20.7 x 13.1 x 8.5 mm max.

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		80	MHz	
Standard frequencies		10 / 12.8 / 16.384 / 20.000		MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C, V_C= 2.5V
vs. operating temperature range (steady state)			± 50 ± 100 ± 200 ± 300 ± 500	ppb ppb ppb ppb ppb	Option II =”50” Option II =”100” Option II =”200” Option II =”300” Option II =”500”
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 10	ppb	
vs. load change			± 20	ppb	
long term (aging) 1st year (Note 3)			± 0.5	ppm	@ +40°C, after 30 days
Frequency adjustment range					
Electronic Frequency Control (EFC)	± 2		± 5	ppm	
EFC voltage V_C	0.15 0.25	1.65 2.5	3.15 4.75	V V	Option I = “33” Option I = “50” or “12”
EFC slope (Df / DV_C)		positive			
EFC linearity				%	
EFC input impedance	100			kΩ	
RF output					
Signal waveform		Sine wave			
Load		50		Ω	
Output amplitude	+3			dBm	
Harmonic attenuation	20			dBc	
Warm-up time			2	min	Df_{final}/f_0 < ±0.1 ppm
Supply voltage V_S	3.13 4.75 11.4	3.3 5.0 12.0	3.47 5.25 12.6	V V V	Option I = “33” Option I = “50” Option I = “12”
Current consumption (steady state) @ +25°C			300 200 90	mA mA mA	Option I = “33” Option I = “50” Option I = “12”
Current consumption (warm-up)			800 500 200	mA mA mA	Option I = “33” Option I = “50” Option I = “12”
Operable temperature range	-30		+75	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing)		20.7x13.1x8.5 max.		mm	IEC 60679-3 CO 02
Weight			5	gram	
Packing		Palette or tube			
ESD Sensitivity	1500			V	HBM, IEC 61000-4-2

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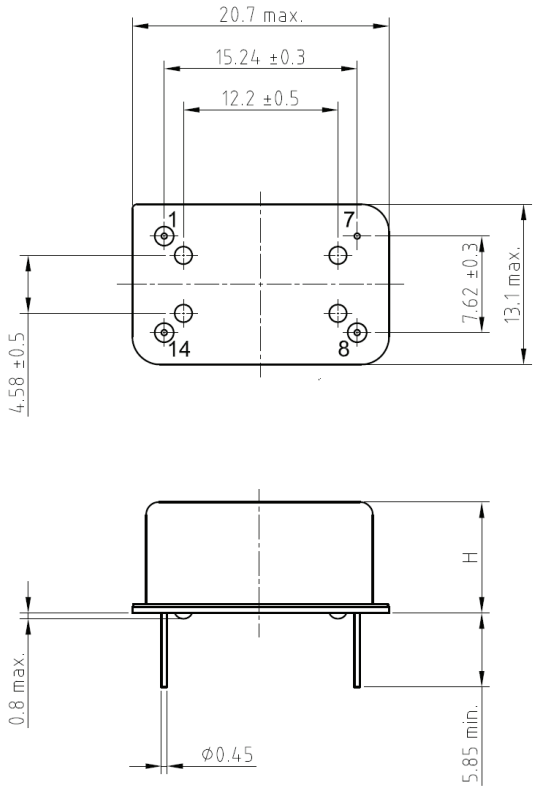
Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other operating temperature range on request
3. Aging of ± 0.2 ppm / 1st year on request

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM25	50	100	10.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	V_C	Voltage Control (EFC)
7	GND	Ground
8	RF OUT	RF Output
14	V_S	Supply Voltage

Environmental conditions

Test	IEC 60068 Part …	IEC 60679-1 clause …	Test conditions
Sealing tests (if applicable)	2-17	4.6.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	4.6.3	Test Ta (235 ± 5)°C Method 1 Test Tb Method 1A, 5s
Shock*	2-27	4.6.8	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	4.6.7	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Endurance tests - ageing - extended aging		 4.7.1 4.7.2	 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request

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