

Datasheet

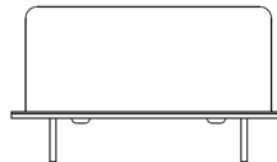
AXIOM70

OCXO WITH HCMOS OUTPUT

FEATURES

- 5-pin thru hole package, size 25.8 x 25.8 x 12.7 mm.
- HCMOS Output logic
- Supply Voltage 5.0V or 3.3V
- Standard Frequencies: 10.0 / 12.8 / 19.44 MHz

25.8 x 25.8 x 12.7 mm max.



Parameter	min.	typ.	max.	Unit	Condition
Frequency Range	10		40		
Standard frequencies	10.000 / 12.800 / 19.440			MHz	
Frequency stability					
Initial tolerance at delivery			± 500	ppb	@+25°C @V _C = centre
vs. in operating temperature range (steady state)			± 200	ppb	Option II = "200"
			± 100	ppb	Option II = "100"
			± 50	ppb	Option II = "50"
			± 25	ppb	Option II = "25"
			± 10	ppb	Option II = "10"
operating temperature range	-10		+60	°C	Note 2
vs. supply voltage variation			± 10	ppb	V _S ± 5%
vs. load change			± 10	ppb	R _L ± 5%
Long term (aging) per day, after 30 days operation		± 5	± 10	ppb	Option II = "200", "100"
		± 1	± 2	ppb	Option II = "50", "25", "10"
long term (aging) 1 st year, after 30 days operation			± 200	ppb	Option II = "200", "100"
			± 100	ppb	Option II = "50", "25", "10"
Frequency adjustment range					
Electronic Frequency Control (EFC) range	± 3			ppm	Option II = "200", "100"
	± 0.8	± 1		ppm	Option II = "50", "25", "10"
EFC voltage V _C	0.15		3.15	V	Option I = "33"
	0.25		4.75	V	Option I = "50"
EFC slope (Df / DV _C)		positive			
EFC input impedance	100			kΩ	
RF output					
Signal waveform		HCMOS			
Load		15		pF	
Rise & decay time			10	ns	
Symmetry (duty cycle)	40		60	%	
Warm-up time			5	min	Df _{final} /f ₀ < ±0.1 ppm
Reference voltage VREF output		3.0		V	Note 3
Supply voltage V_S	3.15	3.3	3.45	V	Option I = "33"
	4.75	5.0	5.25	V	Option I = "50"
Current consumption (steady state) @ +25°C			350	mA	Option I = "33"
			250	mA	Option I = "50"
Current consumption (warm-up)			900	mA	Option I = "33"
			600	mA	Option I = "50"
Operable temperature range	-20		+70	°C	
Storage temperature range	-40		+85	°C	
Enclosure (see drawing) (LxWxH)	25.8x25.8x12.7 max.			mm	
Weight			10	gram	
Packing	Palette				

Notes:

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other operating temperature range on request
3. Other reference voltage on request

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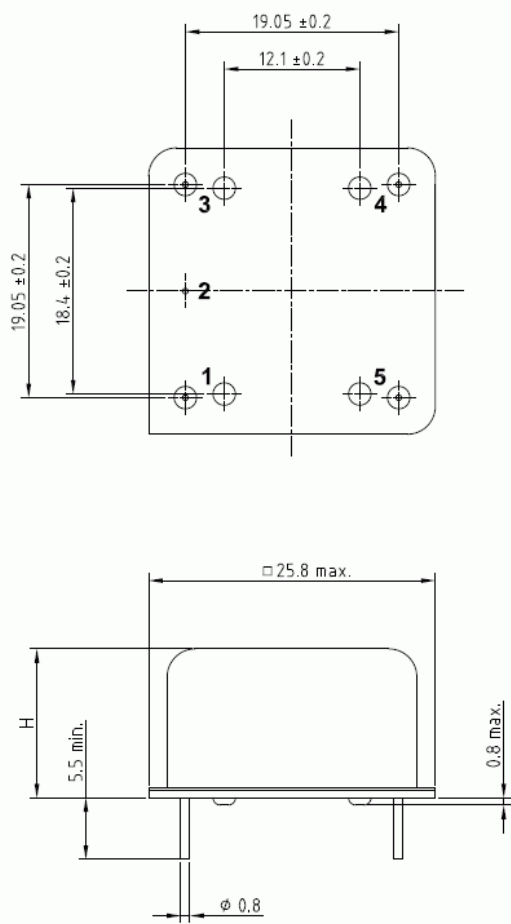
AXIOM70

OCXO WITH HCMOS OUTPUT

Ordering Code:

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM70	50	25	10.000

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	RF OUT	RF Output
2	GND	Ground, case
3	V _c	Control Voltage (EFC)
4	VREF	Reference Voltage
5	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	2-20	4.6.3	Test Ta (235 ± 5)°C Method 1
Resistance to soldering heat	2-58		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		4.7.1	30 days @ 85°C, OCXO @25°C
- extended aging		4.7.2	1000h, 2000h, 8000h @85°C

Other environmental conditions on request

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