

# OCXO DIL14 AXIOM 20S



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<b>Specification</b>	<b>AXIOM20S</b>	Issue: 05	Date: 2009-09-22
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**Oscillator type : OCXO in DIL14 package with Stratum III stability**

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	10		20	MHz	
Standard frequencies	12.8 / 16.384 / 19.44 / 20.0			MHz	
Frequency stability				ppm	
Initial tolerance		± 500		ppb	@+25°C
vs. temperature in operating temperature range			± 280	ppb	steady state
operating temperature range	0 -20 -40		70 70 85	°C	Option II = "070" Option II = "2070" Option II = "4085"
vs. supply voltage variation		± 10		ppb	
vs. load change		± 10		ppb	
Holdover stability (over operating temperature range and $V_S \pm 1\%$ )			± 0.37	ppm	TELCORDIA GR-1244 CORE Stratum III or ITU-T G.813 option 1
24 hours drift			± 40	ppb	
long term (aging) 1 <sup>st</sup> year			± 0.8	ppm	@ +40°C, after 30 days
Long term aging over 15 years			± 3.5	ppm	
Long term stability (overall) 15 years			± 4.6	ppm	Note 2
Frequency adjustment range					
Electronic Frequency Control (EFC)				ppm	N.A.
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			10	ns	
Symmetry (duty cycle)	40		60	%	@ $V_S/2$
Warm-up time			5	min	$\Delta f_{\text{final}}/f_0 < \pm 0.5$ ppm
Supply voltage $V_S$	3.13 4.75	3.3 5.0	3.47 5.25	V	Option I = "33" Option I = "50"
Current consumption (steady state) @ +25°C			300 250	mA	Option I = "33" Option I = "50"
Current consumption (warm-up)			800 500	mA	Option I = "33" Option I = "50"
Enable/disable function					
Operable temperature range	-45		+90	°C	
Storage temperature range	-45		+90	°C	
Enclosure (see drawing)	20.7 x 13.1 x 11 max.			mm	IEC 60679-3 CO 02
Weight			5	gram	
Packing	Palette				
ESD Sensitivity	1500			V	HBM, IEC 61000-4-2
Handling and Testing	In accordance with AXAN-011				www.axtal.com
Processing	In accordance with AXAN-012				www.axtal.com

**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Overall frequency stability = initial tolerance + temp.stability + supply & load change + aging

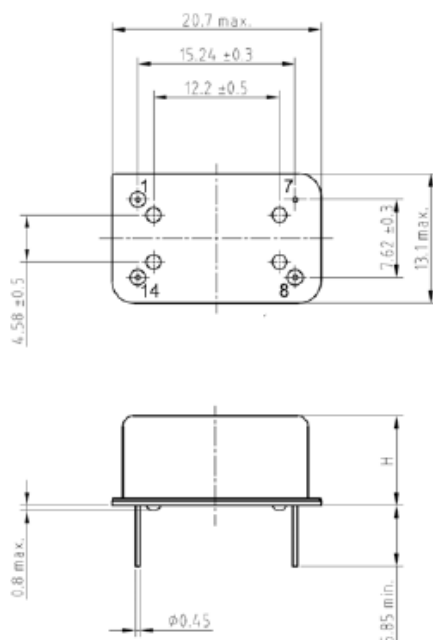
**Ordering Code:**

Model (Specification)	Option I	Option II	Frequency [MHz]
AXIOM20S	33	070	12.800

# OCXO DIL14 AXIOM 20S



## Enclosure drawing



## Pin connections

Pin #	Symbol	Function
1	N.C.	No Connection
7	GND	Ground
8	RF OUT	RF Output
14	Vs	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