AXTAL ADVANCED XTAL PRODUCTS

Specification	AXIOM20-17	Issue: 03	Date: 2009-09-22

Oscillator type : OCXO for Cospas-Sarsat Beacons

Parameter	min.	typ.	max.	Unit	Condition
Frequency range				MHz	
Nominal frequency		60.750		MHz	
Frequency stability				ppm	
Initial tolerance		± 1	± 2	ppm	
vs. temperature					Note 2
- temperature ramp of ± 5 °C / h			± 2	ppb/min	Clause 4.2.2
- thermal shock of 30°C			± 2	ppb	Clause 4.2.3
operating temperature range	-40		+55	°C	Class 1 (Option I)
	-20		+55	°C	Class 2 (Option I)
vs. supply voltage variation			± 20	ppb	V_S ± 5%
vs. load change			± 20	ppb	
Overall aging 5 years			± 10	ppm	
Frequency adjustment range					
Electronic Frequency Control (EFC)		N.A.			
RF output					
Signal waveform		HCMOS			
Load		15		pF	
Rise & decay time			7	ns	
Symmetry	40		60	%	
Warm-up time			2	min	$\Delta f_{final}/f_0 < \pm 0.1$ ppm
Supply voltage VS1 (Oven)	4.75	5.0	5.25	V	
Current consumption (steady state)			100	mA	@ +25°C
Current consumption during warm-up		300	400	mA	Class 1
		250	300	mA	Class 2
Supply voltage VS2 (Oscillator)	4.75	5.0	5.25	V	
Current consumption (VS2)		10	15	mA	
Operable temperature range	-45		+60	°C	
Storage temperature range	-45		+105	°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
Handling and Testing		In accordance with AXAN-011			www.axtal.com
Processing		In accordance with AXAN-012			www.axtal.com

Notes:

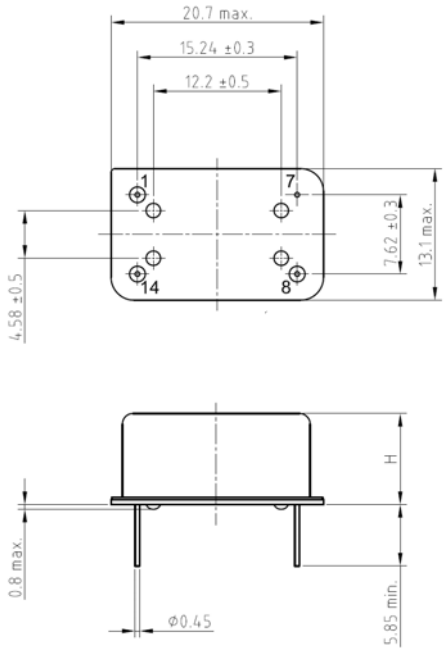
1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. In accordance with mentioned clauses of Cospas/Sarsat Specification C/S T.001. This requirement is 100 % tested

Ordering Code:

Model (Specification)	Option I (Class)	Frequency [MHz]
AXIOM20-17	2	60.750

Example: AXIOM20-17-2-60.750 MHz

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	VS1	Supply Voltage (Oven)
7	GND	Ground
8	RF OUT	RF Output
14	VS2	Supply Voltage (Oscillator)

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