Specification	AXE10	Rev.: 5	Date: 2020-12-02

Oscillator type: SMD SPXO with HCMOS Output in CO 26 or CO 27 package

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	1.544		125	MHz	
Standard frequencies				MHz	
Frequency stability				ppm	
Overall stability	±10 to ±100 See table 1			ppm	(Note 2)
vs. operating temperature range	See table 2			ppm	
Long term (aging) 1st year			±2	ppm	@ +40°C
Frequency adjustment range					
Mechanical frequency control (trimmer)				ppm	on request
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time		5	10	ns	
Symmetry (duty cycle)	40		60	%	@ V_S/2
Start-up time			10	ms	
Supply voltage V_S	3.15 4.75	3.3 5.0	3.45 5.25	V V	Option "33" Option "50"
Current consumption (steady state) (Note 3)			85 45	mA mA	Option "33" Option "50"
Enclosure (see drawing) (LxWxH)	14.4x9.5x6.0 max.			mm	IEC 61837 CO 27
Weight			2	g	
Packing	Tape & Reel				IEC 60286-3

Notes:

1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Overall stability = initial tolerance + stability vs. temperature + aging
3. May be significantly lower. Depends on frequency and load

Absolute Maximum Ratings

Parameter	min.	max.	Unit	Condition
Supply Voltage V_S	-0.5	V_S + 10%	V	V_S to GND
Storage Temperature	-55	+105	°C	

Overall stability and temperature range

Option 2	Stability [ppm]
10	±10
15	±15
25	±25
50	±50
100	±100

Table 1

Lower Temperature			Upper Temperature	
Option 3	T [°C]		Option 3	T [°C]
0	0		A	+50
1	-10		B	+60
2	-20		C	+70
3	-30		D	+75
4	-40		E	+80
5	-55		F	+85
			G	+105
			H	+125

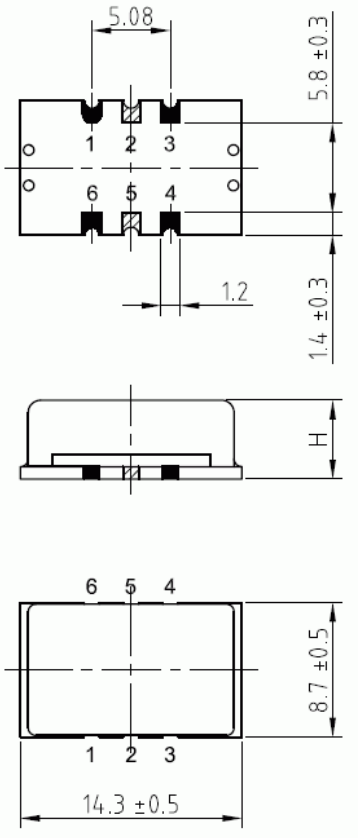
Table 2

Ordering Code

Model	Option [Supply Voltage]	Option [Stability/ppm]	Option [Temperature range]	Revision	Frequency [MHz]
AXE10	33 or 50	Table 1	Table 2	Rev.5	10.000

Example: AXE10-50-25-2C_Rev.5 – 10.000 MHz

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	N.C.	No Connection
2*	N.C.	No Connection
3	GND	Ground
4	RF OUT	RF Output
5*	N.C.	No Connection
6	Vs	Supply Voltage

*Note:
CO 26 package: Pins #2 and #5 not present

Handling and Testing

Parameter	Procedure		Source
Handling and Testing	Application Note AXAN-011		www.axtal.com
Processing	Application Note AXAN-012		www.axtal.com
Parameter	**Procedure**		**Condition**
Electrostatic discharge (ESD)			
THD devices	IEC60749-26	HBM	2000 V
SMD devices	IEC60749-27	MM	200 V
Washable	☐ Yes ✖ No		
RoHS compliant	✖ Yes ☐ No		

Environmental conditions

Test	IEC 60068 Part ...	IEC 60679-1 Clause	MIL-STD-202G Method	MIL-STD-810F Method	MIL-PRF-55310D Clause	Test conditions (IEC)
Sealing tests (if applicable)	2-17	5.6.2	112E		3.6.1.2	Gross leak: Test Qc, Fine leak: Test Qk
Solderability Resistance to soldering heat	2-20 2-58	5.6.3	208H 210F		3.6.52 3.6.48	Test Ta Method 1 Test Td_1 Method 2 Test Td_2 Method 2
Shock*	2-27	5.6.8	213B	516.4	3.6.40	Test Ea, 3 x per axes 100g, 6 ms half-sine pulse
Vibration, sinusoidal*	2-6	5.6.7.1	201A 204D	516.4-4	3.6.38.1 3.6.38.2	Test Fc, 30 min per axes, 10 Hz - 55 Hz 0,75mm; 55 Hz - 2 kHz, 10g
Vibration, random*	2-64	5.6.7.3	214A	514.5	3.6.38.3 3.6.38.4	Test Fdb
Endurance tests - ageing - extended aging		 5.7.1 5.7.2	108A		 4.8.35	 30 days @ 85°C, OCXO @25°C 1000h, 2000h, 8000h @85°C

Other environmental conditions on request

Data sheet is for information purposes only and may be subject to modifications or may be discontinued without notice.

Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
4	D0, D1	01.10.2012	Enclosure drawing updated, editorial changes	BN	BN
4	D2	04.04.2014	Environmental conditions updated, editorial changes	HH	HH
5	D2	02.12.2020	Options for stability and temperature range added	BN	BN