

<b>Specification</b>	<b>AXE10L/LE</b>	Rev.: 2	Date: 2014-04-04
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**Oscillator type: SMD SPXO with LVDS Output**

Parameter	min.	typ.	max.	Unit	Condition
<b>Frequency range</b>	1.000		800	MHz	
<b>Frequency stability</b> (Note 2)			±25	ppm	Option 2 = "25-0C"
			±50	ppm	Option 2 = "50-4F"
Initial tolerance				ppm	Included in
vs. operating temperature range				ppm	"frequency stability"
vs. supply voltage variation			±3	ppm	V <sub>S</sub> ±5%
vs. load change			±1	ppm	Load ±5%
Long term (aging) per year			±3	ppm	@ +25°C
<b>Frequency adjustment range</b>					
Electronic Frequency Control (EFC) range		N.A.		ppm	
<b>RF output</b>					
Signal waveform	LVDS				
Load	50			Ω	
Rise & decay time			1	ns	20% ~ 80% of amplitude
Symmetry (duty cycle)	45		55	%	@ V <sub>S</sub> /2
Start-up time			10	ms	
Jitter (RMS)			1	ps	10 kHz ~ 20 MHz
<b>Supply voltage V<sub>S</sub></b>	3.15	3.3	3.45	V	Option 1 = "33"
	4.75	5.0	5.75	V	Option 1 = "50"
<b>Current consumption</b> (steady state)			120	mA	@ +25°C (Note 3)
<b>Enable/Disable function (Pin 1)</b>	Not applicable				Model = "AXE10L"
	V <sub>L</sub> < 0.8 V: Enable				Model = "AXE10LE"
	V <sub>H</sub> > 2.0 V or OPEN: Disable				
<b>Operating temperature range</b>	0		+70	°C	Option 2 = "25-0C"
	-40		+85	°C	Option 2 = "50-4F"
<b>Enclosure (see drawing) (LxWxH)</b>	14.8x9.8x5.5 max.			mm	IEC 61837 CO 27
<b>Weight</b>			2	g	
<b>Packing</b>	Tape & Reel				IEC 60286-3

**Notes:**

1. Terminology and test conditions are according to IEC60679-1 and MIL-PRF-55310, unless otherwise stated
2. Frequency stability = initial tolerance + stability vs. temperature
3. Maximum current consumption depends on frequency and load
4. All combinations of options might not be available. Please consult factory

**Absolute Maximum Ratings**

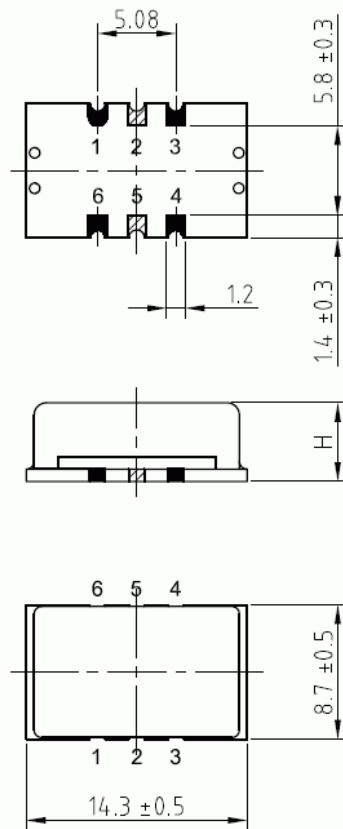
Parameter	min.	max.	Unit	Condition
Supply Voltage V <sub>S</sub>	-0.5	V <sub>S</sub> + 10%	V	V <sub>S</sub> to GND
Storage Temperature	-55	+105	°C	

**Ordering Code**

Model	Option 1 [Supply Voltage]	Option 2 [Temperature range]	Revision	Frequency [MHz]
AXE10L AXE10LE	50	25-0C	Rev.2	155.520

**Example: AXE10L-50-25-0C\_Rev.2 – 155.520 MHz**

## Enclosure drawing



## Pin connections

### AXE10L:

Pin #	Symbol	Function
1	N.C.	No Connection
2	N.C.	No Connection
3	GND	Ground
4	RF OUT1	RF Output
5	RF OUT2	Complementary RF Out
6	Vs	Supply Voltage

### AXE10LE:

Pin #	Symbol	Function
1	E/D	Enable/Disable
2	N.C.	No Connection
3	GND	Ground
4	RF OUT1	RF Output
5	RF OUT2	Complementary RF Out
6	Vs	Supply Voltage

## 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
RoHS compliant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> 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 <sub>1</sub> Method 2 Test Td <sub>2</sub> 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
2	D1	01.10.2012	Editorial changes	BN	BN
2	D2	04.04.2014	Environmental conditions updated, editorial changes	HH	HH