Specification	AXE3225P	Rev.: 1	Date: 2016-04-15

Oscillator type: SMD SPXO with PECL Output in 3.2x2.5 mm package

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	13.5		200	MHz	
Nominal frequency	125.000/156.250			MHz	Note 2
Frequency stability					
Overall tolerance (Note 3)			±25 ±50 ±100	ppm ppm ppm	Option 2 = “25” Option 2 = “50” Option 2 = “100”
Long term (aging)			±3	ppm/year	@ +40°C
RF output					
Signal waveform	LVPECL				
Load	50 Ω into V_S-2V			pF	or Thevenin equivalent
Output voltage swing	400			mV	
Rise & decay time		0.3	0.5	ns	
Symmetry (duty cycle)	40		60	%	
Phase noise (@ 156.250 MHz)		-75 -90 -120 -135 -142 -147 -155		dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz dBc/Hz	@ 10 Hz @ 100 Hz @ 1 kHz @ 10 kHz @ 100 kHz @ 1 MHz @ 10 MHz
Phase jitter (integrated phase noise)		0.2	0.5	ps	12 kHz to 20 MHz
Start-up time		10		ms	
Supply voltage V_S	2.375 3.135	2.5 3.3	2.625 3.465	V V	Option 1 = “25” Option 1 = “33”
Current consumption (steady state)		30	50	mA	15 pF load
Operating temperature range	-10 -40		+70 +85	°C °C	Option 3 = “1C” Option 3 = “4F”
Enclosure (see drawing) (LxWxH)	3.2x2.5x1.0			mm	IEC 61837-2
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. Other frequencies on request
3. Overall frequency tolerance = initial tolerance + stability vs. temperature + frequency variations vs. supply voltage (pushing) and load (pulling)

Absolute Maximum Ratings

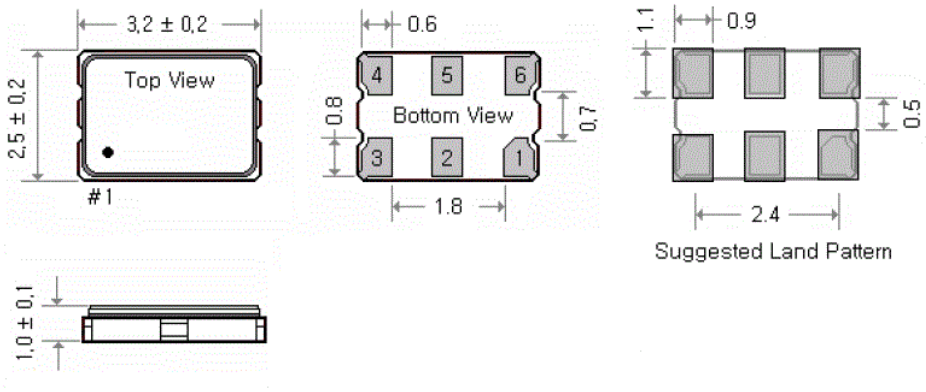
Parameter	min.	max.	Unit	Condition
Supply Voltage V_S	-0.5	V_S + 10%	V	V_S to GND
Storage Temperature	-50	+100	°C	

Ordering Code

Model	Option 1 Supply	Option 2 Stability	Option 3 Temperature range	Revision	Frequency [MHz]
AXE3225P	25 33	25 50 100	1C 4F	Rev.1	125.000

Example: AXE3225P-33-50_Rev.1 – 125.000 MHz

Enclosure drawing



Pin connections

Pin #	Symbol	Function
1	OE	Output enable/Tri-state
2	N.C.	No Connection
3	GND	Ground
4	RF OUT	RF Output
5	RF OUT2	Complementary RF Output
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	✖ 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

Revision History

Rev.	Drawing	Date [dd.mm.yyyy]	Remarks	Author	Checked
1	D0	15.04.2016	First issue AXE3225P	BN	BN