

Specification	AXE3225WT	Rev.: 1	Date: 2019-01-04
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Oscillator type: SMD SPXO with HCMOS Output in 3.2x2.5 mm package

Wide operating temperature range -55°C to +125°C

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	1.5		160	MHz	
Standard frequencies				MHz	
Frequency stability					
Overall tolerance (Note 2)			±25 ±50 ±100	ppm ppm ppm	Option 1 = "25" Option 1 = "50" Option 1 = "100"
Long term (aging)			±3	ppm/year	@ +40°C
RF output					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time		5	10	ns	Note 3
Symmetry (duty cycle)	40		60	%	
Start-up time		10		ms	
Supply voltage V_S	3.135	3.3	3.465	V	
Current consumption (steady state @ 15 pF load)			7 30	mA mA	1.5 MHz ~ 50 MHz >50 MHz ~ 160 MHz
Operating temperature range (Note 4)	-40 -40 -55		+85 +105 +125	°C °C °C	Option 2 = "4F" Option 2 = "4G" Option 2 = "5H"
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. Overall frequency tolerance = initial tolerance + stability vs. temperature + frequency variations vs. supply voltage (pushing) and load (pulling)
3. Depending of frequency
4. Overall tolerance of ±25 ppm not available for option 2 = "4G" and "5H"

Absolute Maximum Ratings

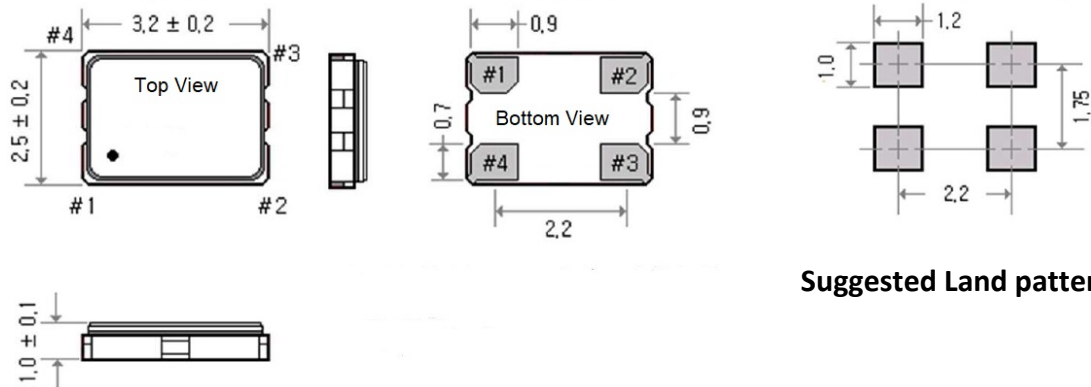
Parameter	min.	max.	Unit	Condition
Supply Voltage V _S	-0.5	V _S + 10%	V	V _S to GND
Storage Temperature	-50	+125	°C	

Ordering Code

Model	Option 1 Stability	Option 2 Temperature range	Revision	Frequency [MHz]
AXE3225WT	25 50 100	4F 4G 5H	Rev.1	125.000

Example: AXE3225WT-50-4G_Rev.1 – 100.000 MHz

Enclosure drawing



Suggested Land pattern

Pin connections

Pin #	Symbol	Function
1	OE	Output enable/Tri-state
2	GND	Ground
3	RF OUT	RF Output
4	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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
RoHS compliant	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Moisture sensitivity Level	MSL 1		

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	04.01.2019	First issue AXE3225WT	BN	BN