

<b>Specification</b>	<b>AXE20</b>	Issue: 03	Date: 2009-11-10
<b>Oscillator type : Crystal Oscillator in double-sealed DIL14 package</b>			

Parameter	min.	typ.	max.	Unit	Condition
Frequency range	1		150	MHz	V <sub>S</sub> = 5 V
	1		133	MHz	V <sub>S</sub> = 3.3 V
<b>Standard frequencies</b>					
<b>Frequency stability</b>					
Overall stability (Note 2)			± 100	ppm	Option I = "100"
			± 50	ppm	Option I = "50"
			± 25	ppm	Option I = "25"
operating temperature range (Note 3)	0		+70	°C	Option II = "A"
	-20		+70	°C	Option II = "B"
	-40		+85	°C	Option II = "C"
	-55		+105	°C	Option II = "D"
	-55		+125	°C	Option II = "E"
long term (aging)			± 2	ppm/year	@ 40°C
<b>RF output</b>					
Signal waveform	HCMOS				
Load	15			pF	
Rise & decay time			5	ns	
Symmetry (duty cycle)	40		60	%	@ V <sub>S</sub> /2
Start-up time			10	ms	
Supply voltage V <sub>S</sub>	3.15	3.3	3.45	V	Option III = "33"
	4.75	5.0	5.25		Option III = "50"
Current consumption (steady state)			45	mA	Option III = "33"
Note 4			25	mA	Option III = "50"
Storage temperature range	-55		+125	°C	
Enclosure (see drawing) LxWxH	20.7x13.1x7.5 max.			mm	IEC 60679-3 CO-02
Weight			5	gram	
Packing	Palette or tube				IEC 60286-3
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

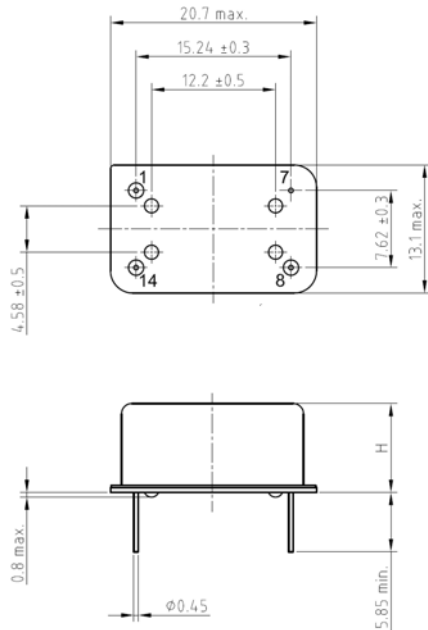
**Notes:**

1. Terminology and test conditions are according to IEC standard IEC60679-1, unless otherwise stated
2. Other stabilities on request
3. Other operating temperature ranges on request
4. Current consumption depending on frequency
5. Not all combinations of options may be available. Consult factory

**Ordering Code:**

Model (Specification)	Option I	Option II	Option III	Frequency [MHz]
AXE20	100	A	50	12.345678

## Enclosure drawing



## Pin connections

Pin #	Symbol	Function
1	N.C.	Not connected
7	GND	Ground
8	RF OUT	RF Output
14	Vs	Supply Voltage

## 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