

FREQUENCIES AVAILABLE	MODEL DESIGNATOR	OVERALL STABILITY
40kHz~150MHz	1210A 1210B 1210C	± 25PPM ± 50PPM ±100PPM

**Note 1** Stability options are inclusive of: Calibration Tolerance at 25°C, Operating Temperature Range, Supply Voltage Change, Load Change, Ageing, Shock & Vibration.

Parameter	Code	Value	Unit	Remarks
Storage Temperature Range	Tstg	-55 to +125	°C	
Operating Temperature Range	Top	0 to +70	°C	
Input Voltage	V <sub>cc</sub>	+5	V DC	±10%
Max Input Current	ICC	20	mA Max	500 kHz to 20MHz
		40		20.1MHz to 70MHz
		60		70.1MHz to 150MHz
Duty Ratio	SY	40:60	%	At 50% V <sub>DD</sub>
"0" Level	V <sub>OL</sub>	0.5	V DC	Max
"1" Level	V <sub>OH</sub>	4.5	V DC	Min
Max Rise/Fall Time	Tr:Tf	10	nS Max	500 kHz to 20MHz
		6		20.1MHz to 70MHz
		4		70.1MHz to 150MHz
Start-Up Time	TSTART	5	mS	
Fan-Out (Load)		15pF Min		HCmos
		1-10 TTL		TTL

#### MECHANICAL

**Drop Test** - Drop Module onto a hard wooden surface from 20cm 3 times

**Shock Test** - 1500g (Peak) 0.35mS (1/2Sine Wave) 5 Times

**Vibration Test** - Vibrations with an amplitude of 3mm and a sweep from 10-55 Hz duration 1 minute shall be applied for 2 hours in each of the x, y, & z axes

#### ENVIRONMENTAL

**Solder Heat** - Immerse pins to within 1mm of glass stand-offs in solder bath of 280°C ±10°C for 10 secs

**Life Test** - After exposure to +125°C (Power Applied) for 1000 Hrs

**Cold Resistance** - After exposure to -40°C for 2 hrs

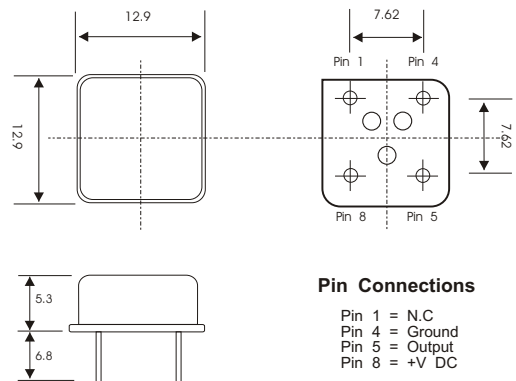
**Humidity** - After exposure to +40°C 90-95% RH for 48 Hrs

**Thermal Shock** - After 10 cycles of exposure to -55°C & 125°C with 10mins exposure at each extreme

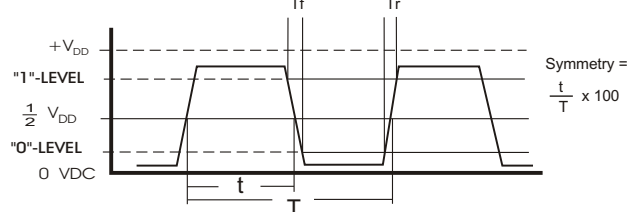
**Fine Leak** - Helium leak detector, pressure 5kg./cm<sup>2</sup> for 2 Hrs, leakage less than  $1 \times 10^{-8}$  Atm.cc/Sec

**TITLE:** AEL 1210 Series Crystal Oscillator 8-Pin DIL UNIVERSAL O/P (Hcmos & TTL) 500kHz to 100MHz

AEL PART N°	Issue Number	Issue Date	Approved
General Specification	5	19/03/2000	GR
	Frequency Increased to 150MHz		



#### Waveform



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