

| FREQUENCY RANGE | OVERALL STABILITY OPTIONS                        |
|-----------------|--------------------------------------------------|
| 400kHz ~ 160MHz | 9711A = 25PPM<br>9711B = 50PPM<br>9711C = 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            | -65 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 80MHz       |
|                             |                 | 50          |        | 80.1MHz to 160MHz      |
| Duty Ratio                  | SY              | 45:55       | %      | 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 160MHz      |
| Start-Up Time               | TSTART          | 5           | mS     |                        |
|                             |                 | 15pF Min    |        | HCmos                  |
|                             |                 | 1-10 TTL    |        | TTL                    |

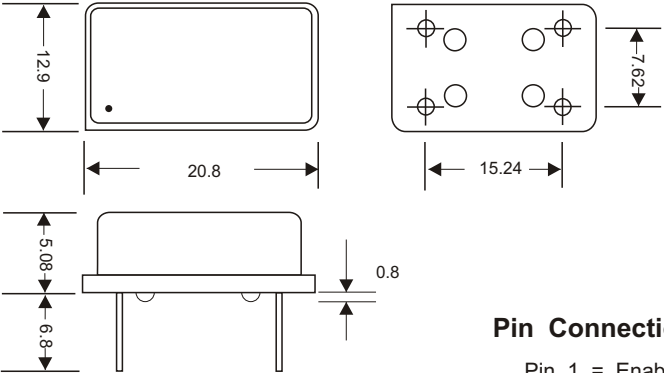
MECHANICAL

- 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.f/cm³ for 2 Hrs, leakage less than 1 x 10<sup>8</sup> Atm.cc/Sec

|             |                                                                                                |              |            |          |
|-------------|------------------------------------------------------------------------------------------------|--------------|------------|----------|
| TITLE:      | Crystal Oscillator 14-Pin DIL UNIVERSAL O/P (Hcmos & TTL) 500kHz to 100MHz With enable/disable |              |            |          |
| AEL PART N° | AEL 9711CSN                                                                                    | Issue Number | Issue Date | Approved |
|             |                                                                                                | 3            | 22/05/98   | GR       |



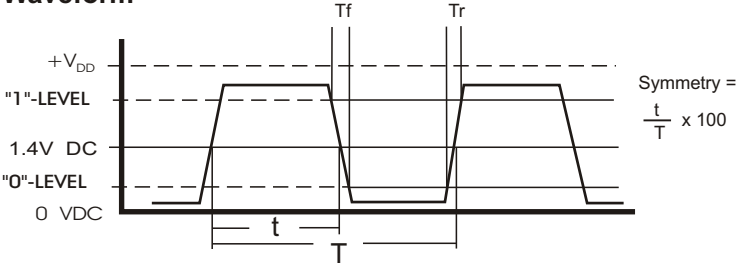
Pin Connections

- Pin 1 = Enable/Disable
- Pin 4 = Ground
- Pin 5 = Output
- Pin 8 = +V DC

| Enable/Disable Function |                |
|-------------------------|----------------|
| INH (Pin 1)             | OUTPUT (Pin 5) |
| Open                    | Active         |
| "1" (VIH ≥ 2.2V)        | Active         |
| "0" (VIL ≤ 0.8V)        | High Z         |

Tf Tr

Waveform



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