

- Frequency range 50.01MHz to 200MHz
- LVCMOS Output
- Supply Voltage 3.3 VDC
- High Q fundamental mode crystal
- Low jitter multiplier circuit
- Low unit cost

### **DESCRIPTION**

GV576 VCXOs, are packaged in an industry-standard, 6 pad, 7mm x 5mm SMD package. The VCXO incorporates a high Q fundamental mode crystal and a low jitter multiplier circuit.

### **SPECIFICATION**

| SI LUITGATION               |  |  |  |
|-----------------------------|--|--|--|
| Frequency Range:            | 50.01MHz to 200.0MHz   |  |  |
| Supply Voltage:             | 3.3 VDC ±5%  |  |  |
| Output Logic:               | LVCMOS   |  |  |
| Integrated Phase Jitter:    | 2.3ps typical, 4.0ps maximum<br>(for 155.250MHz)   |  |  |
| Period Jitter RMS:          | 4.0ps typical (for 155.250MHz)   |  |  |
| Period Jitter Peak to peak: | 27.0ps typical (for 155.250MHz)  |  |  |
| Phase Noise:                | See table below  |  |  |
| Initial Frequency Accuracy: | Tune to the nominal frequency with Vc= 1.65 ±0.2VDC  |  |  |
| Output Voltage HIGH (1):    | 90% Vdd minimum  |  |  |
| Output Voltage LOW (0):     | 10% Vdd maximum  |  |  |
| Pulling Range:              | From ±30ppm to ±150ppm   |  |  |
| Temperature Stability:      | See table  |  |  |
| Output Load:                | 15pF   |  |  |
| Start-up Time:              | 10ms maximum, 5ms typical  |  |  |
| Duty Cycle:                 | 50% ±5% measured at 50% Vdd  |  |  |
| Rise/Fall Times:            | 1.2ns typical (15pF load)  |  |  |
| Current Consumption:        | 25mA maximum (15pF load)   |  |  |
| Linearity:                  | 10% maximum, 6% typical  |  |  |
| Modulation Bandwidth:       | 25kHz minimum  |  |  |
| Input Impedance:            | 2 MΩ minimum   |  |  |
| Slope Polarity:             | Monotonic and Positive. (An  |  |  |
| (Transfer function)         | increase of control voltage  |  |  |
|                             | always increases output  |  |  |
|                             | frequency.)  |  |  |
| Storage Temperature:        | -50° to +100°C   |  |  |
| Ageing:                     | ±5ppm per year maximum   |  |  |
| Enable/Disable (Tristate):  | Pads 2 or 5, Enable high or 70%<br>Vdd min applied to Tri-state pad<br>to enable output.<br>30% Vdd max. to disable output<br>(high impedance) |  |  |
| RoHS Status:                | Fully compliant  |  |  |
|                             | ,  |  |  |

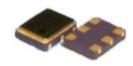
## FREQUENCY STABILITY

| 40 - 110 1 0 17 1 - 111 1 |                |                |             |  |
|---------------------------|----------------|----------------|-------------|--|
|                           | Stability Code | Stability ±ppm | Temp. Range |  |
|                           | Α              | 25             | 0°∼+70°C    |  |
|                           | В              | 50             | 0°∼+70°C    |  |
|                           | С              | 100            | 0°∼+70°C    |  |
|                           | D              | 25             | -40°∼+85°C  |  |
|                           | Е              | 50             | -40°∼+85°C  |  |
|                           | F              | 100            | -40°~+85°C  |  |

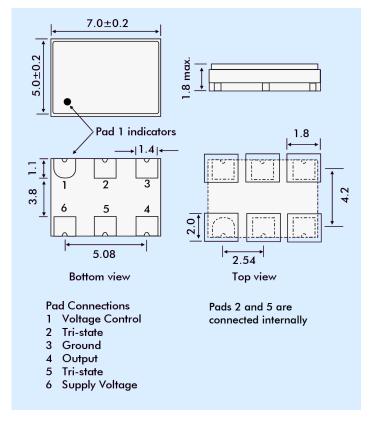
If non-standard frequency stability is required Use 'I' followed by stability, i.e. I20 for ±20ppm

# 7 x 5 x 1.8mm 6 pad SMD





### **OUTLINE & DIMENSIONS**



## PHASE NOISE

| Offset | Frequency 155.25MHz |
|--------|---------------------|
| 10Hz   | -65dBc/Hz           |
| 100Hz  | -95dBc/Hz           |
| 1kHz   | -120dBc/Hz          |
| 10kHz  | -128dBc/Hz          |
| 100kHz | -122dBc/Hz          |
| 1MHz   | -120dBc/Hz          |
| 10MHz  | -140dBc/Hz          |

### PART NUMBER SCHEDULE

