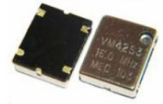


- Frequency range 200.1MHz to 800MHz
- LVCMOS Output
- Supply Voltage 3.3 VDC
- High Q fundamental mode crystal
- Low jitter multiplier circuit



### DESCRIPTION

GW42 VCXOs, are packaged in an industry-standard, 4 pad, 11.4mm x 9.6mm x 2.5mm SMD package. GW42 VCXOs incorporate a high Q fundamental crystal and a low jitter multiplier circuit.

### SPECIFICATION

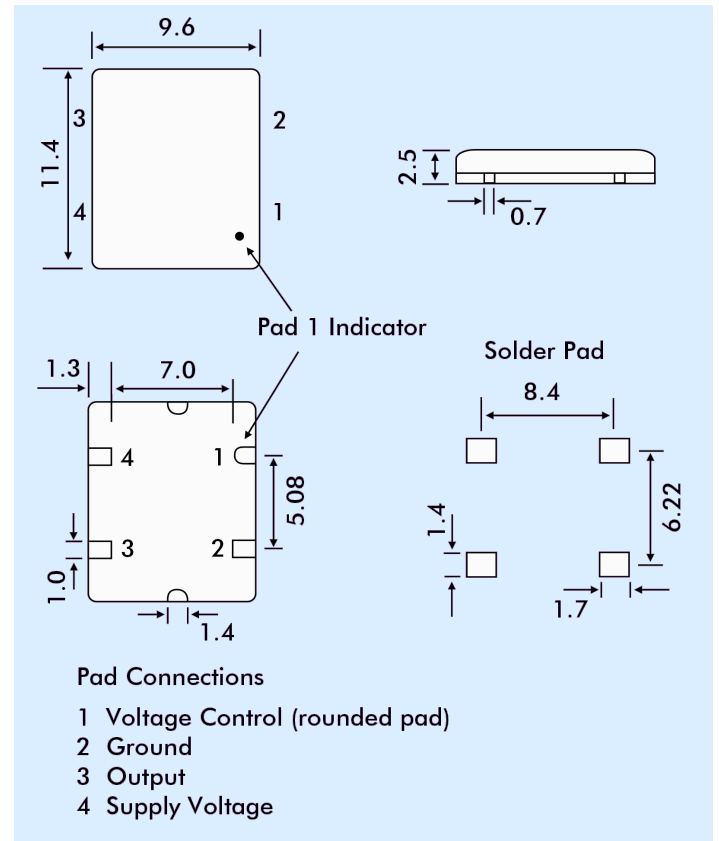
|                                     |   |
|-------------------------------------|---|
| Frequency Range:                    | 200.1MHz to 800.0MHz  |
| Supply Voltage:                     | 3.3 VDC $\pm 5\%$   |
| Output Logic:                       | LVCMOS  |
| Integrated Phase Jitter:            | 2.6ps typical, 4.0ps maximum (for 155.250MHz)   |
| Period Jitter RMS:                  | 4.3ps 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 $V_c = 1.65 \pm 0.2VDC$                                  |
| Output Voltage HIGH (1):            | 90% Vdd minimum   |
| Output Voltage LOW (0):             | 10% Vdd maximum   |
| Pulling Range:                      | From $\pm 30ppm$ to $\pm 150ppm$  |
| Temperature Stability:              | See table   |
| Output Load:                        | 15pF  |
| Start-up Time:                      | 10ms maximum, 5ms typical   |
| Duty Cycle:                         | 50% $\pm 5\%$ measured at 50% Vdd   |
| Rise/Fall Times:                    | 1.2ns typical (15pF load)   |
| Current Consumption                 |   |
| <96MHz:                             | 30mA maximum (15pF load)  |
| >96MHz:                             | 40mA maximum (15pF load)  |
| Linearity:                          | 10% maximum, 6% typical   |
| Modulation Bandwidth:               | 25kHz minimum   |
| Input Impedance:                    | 2 M $\Omega$ minimum  |
| Slope Polarity: (Transfer function) | Monotonic and Positive. (An increase of control voltage always increases output frequency.) |
| Storage Temperature:                | -50° to +100°C  |
| Ageing:                             | $\pm 5ppm$ per year maximum   |
| Enable/Disable (Tristate):          | Not available (4 pad package)   |
| RoHS Status:                        | Fully compliant   |

### FREQUENCY STABILITY

| Stability Code | Stability $\pm ppm$ | Temp. Range |
|----------------|---------------------|-------------|
| A              | 25                  | 0°~+70°C    |
| B              | 50                  | 0°~+70°C    |
| C              | 100                 | 0°~+70°C    |
| D              | 25                  | -40°~+85°C  |
| E              | 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  $\pm 20ppm$

### OUTLINE & DIMENSIONS



### PHASE NOISE

|        |            |
|--------|------------|
| 10Hz   | -65dBc/Hz  |
| 100Hz  | -95dBc/Hz  |
| 1kHz   | -120dBc/Hz |
| 10kHz  | -125dBc/Hz |
| 100kHz | -121dBc/Hz |
| 1MHz   | -120dBc/Hz |
| 10MHz  | -140dBc/Hz |

### PART NUMBER SCHEDULE

