

- 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

GV42 VCXOs, are packaged in an industry-standard, 4 pad, 11.4mm x 9.6mm x 2.5mm SMD package. The VCXO incorporates a high Q fundamental mode crystal and a low jitter multiplier circuit.

SPECIFICATION

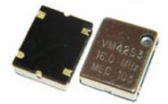
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|--|---|
| Frequency Range: | 50.01MHz to 200.0MHz |
| Supply Voltage: | 3.3 VDC $\pm 5\%$ |
| Output Logic: | LVCMOS |
| Integrated Phase Jitter: | 2.3ps typical, 4.0ps maximum (for 155.250MHz) |
| Period Jitter RMS: | 4.0ps typical (for 155.250MHz) |
| 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 $V_c = 1.65 \pm 0.2VDC$ |
| 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: | 25mA maximum (15pF load) |
| Linearity: | 10% maximum, 6% typical |
| Modulation Bandwidth: | 25kHz minimum |
| Input Impedance: | 2 M Ω 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

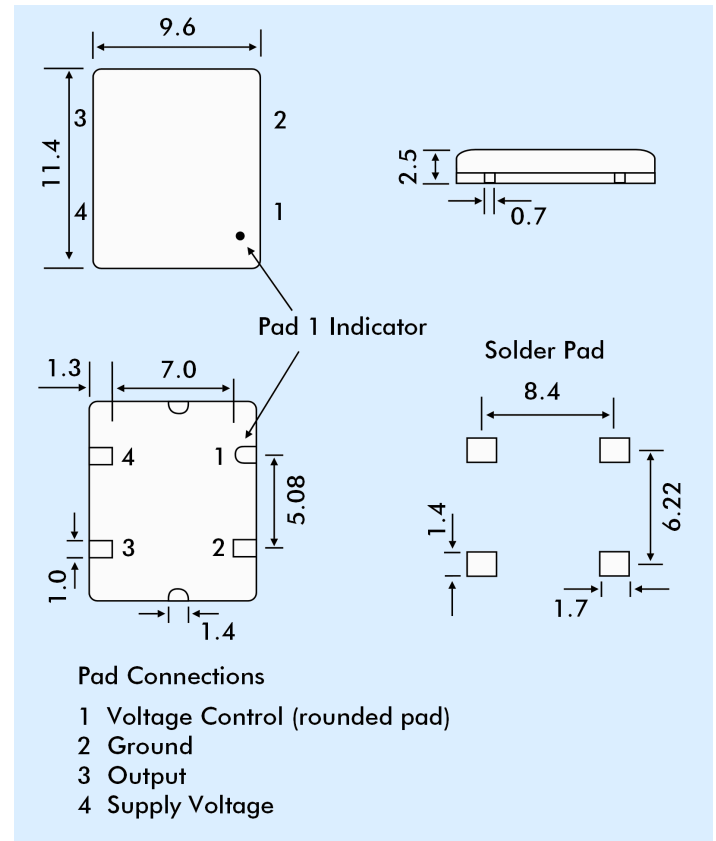
| Stability Code | Stability $\pm ppm$ | Temp. Range |
|----------------|---------------------|-------------|
| A | 25 | 0°~+70°C |
| B | 50 | 0°~+70°C |
| C | 100 | 0°~+70°C |
| D | 25 | -40°~+85°C |
| E | 50 | -40°~+85°C |
| F | 100 | -40°~+85°C |

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

11.4 x 9.6 x 2.5mm 4 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 NUMBERING

