

High Frequency 7 x 5 x 1.8mm SMD CMOS

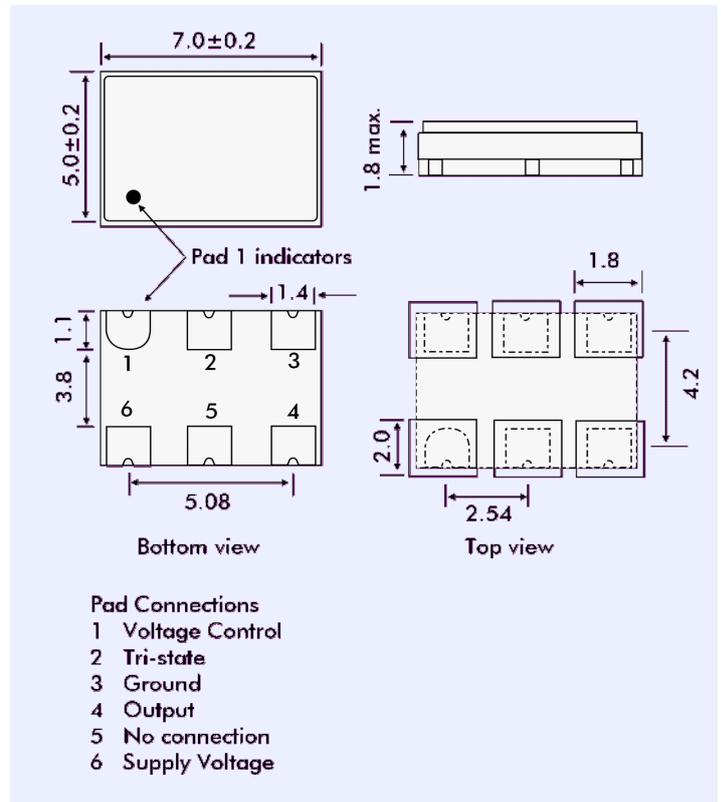
- Frequency range 50.1MHz to 200.0MHz
- CMOS/TTL Output
- Supply Voltage 3.3 VDC
- Integrated Phase Jitter 2.3ps typical
- Low-cost unit



GENERAL SPECIFICATION

Model:	'GV' Series
Technology:	High Q fundamental crystal with low jitter multiplier circuit
Output Logic:	LVCMSO
Frequency range:	50.01MHz to 200.0MHz
Supply Voltage (V _{dd}):	+3.3V ±5% (Part code = '3')
Output Logic High '1':	90% V _{dd} min.
Output Logic Low '0':	10% V _{dd} max.
Integrated Phase Jitter:	2.3ps typical, 4ps max. (for 155.520MHz)
Period Jitter RMS:	4.0ps typical
Period Jitter Peak to Peak:	27ps typical (with decoupling capacitor V _{dd} and ground)
Phase Noise:	See table
Current Consumption:	25mA max.
Rise/Fall Times:	2.4ns typical 0.3V~3.0V, 15pF load
Frequency Stability:	See table
Frequency Deviation Range:	±80ppm (standard)
Load:	15pF
Start-up Time:	10ms max., 5ms typical
Duty Cycle:	50%±5% measured at 50% V _{dd}
Linearity:	6% typical, 10% max.
Modulation Bandwidth:	25kHz min.
Input Impedance:	2MΩ min.
Slope Polarity:	Monotonic and positive (An increase of control voltage increases output frequency.)
Ageing:	±3ppm max. first year, ±2ppm/year thereafter
Enable/Disable:	Enable high. No connection or V _{dd} -0.5V min. is applied to E/D pad to enable output. Ground +0.5V max. to disable output

OUTLINE AND DIMENSIONS



PHASE NOISE at 155.520MHz

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

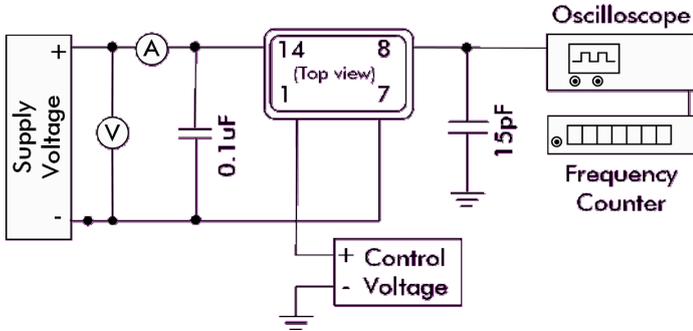
FREQUENCY STABILITY OVER TEMPERATURE

Frequency Stability over Operating Temp. Range*	±25ppm	±50ppm	±100ppm
Commercial -10° to +70°C	A	B	C
Industrial -40 to +85°C	D	E	F

* If non-standard temperature stability is required enter the desired stability in ppm after either 'C' (-10° to +70°) or 'I' (-40° to +85°C)
Example: 'C20' = ±20ppm over -10 to +70°C

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CMOS/TTL TEST CIRCUIT



PART NUMBER SCHEDULE

Example: 3GV576B-80N-155.520

Supply Voltage +3.3V

Series Designator GV576

Stability over Temperature Range

A = ±25ppm over -10° to +60°C

B = ±50ppm over -10° to +60°C

C = ±100ppm over -10° to +60°C

D = ±25ppm over -40° to +85°C

E = ±50ppm over -40° to +85°C

F = ±100ppm over -40° to +85°C

Pullability in ±ppm

Pullability Determinator

N = minimum

M = maximum

T = Typical

Frequency in MHz

TRANSFER FUNCTION

Typical response of 5G14-C-150N-27.000
(at 25°C, positive transfer)

