

- Frequency range 38MHz to 640MHz
- LVPECL Output
- Supply Voltage 3.3 VDC
- Phase jitter 0.4ps typical
- Pull range from  $\pm 30\text{ppm}$  to  $\pm 150\text{ppm}$

## DESCRIPTION

GPF64 VCXOs are packaged in a 6 pad 11.4 x 9.6mm SMD package. Typical phase jitter for GPF series VCXOs is 0.4 ps. Output is LVPECL. Applications include phase lock loop, SONET/ATM, set-top boxes, MPEG, audio/video modulation, video game consoles and HDTV.

## SPECIFICATION

Frequency Range:	38.0MHz to 640.0MHz
Supply Voltage:	3.3 VDC $\pm 5\%$
Output Logic:	LVPECL
RMS Period Jitter:	3.0ps typical
Peak to Peak Jitter:	20.0ps typical, 30.0ps maximum
Phase Jitter:	0.4ps typical, 5.0ps maximum
Initial Frequency Accuracy:	Tune to the nominal frequency with $V_c = 1.65 \pm 0.2\text{VDC}$
Output Voltage HIGH (1):	$V_{dd} - 1.025\text{V}$ minimum $V_{dd} - 0.880\text{V}$ maximum
Output Voltage LOW (0):	$V_{dd} - 1.810\text{V}$ minimum $V_{dd} - 1.620\text{V}$ maximum ( $R_L = 50\Omega$ to $V_{dd} - 2\text{V}$ )
Pulling Range:	From $\pm 30\text{ppm}$ to $\pm 150\text{ppm}$
Control Voltage Range:	$1.65 \pm 0.35$ Volts
Temperature Stability:	See table
Output Load:	$50\Omega$ into $V_{dd}$ or Thevenin equiv.
Rise/Fall Times:	0.5ns typ., 0.7ns max. 20% $V_{dd}$ to 80% $V_{dd}$
Duty Cycle:	50% $\pm 5\%$ (Measured at $V_{dd} - 1.3\text{V}$ )
Start-up Time:	10ms maximum, 5ms typical
Current Consumption:	75mA maximum at 212.5MHz 80mA maximum at 622.08MHz
Static Discharge Protection:	2kV maximum
Storage Temperature:	$-55^\circ$ to $+150^\circ\text{C}$
Ageing:	$\pm 2\text{ppm}$ per year maximum
Enable/Disable:	See table
RoHS Status:	Fully compliant or non-compliant

## FREQUENCY STABILITY

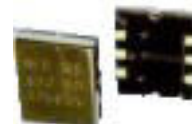
Stability Code	Stability $\pm\text{ppm}$	Temp. Range
A	25	$0^\circ \sim +70^\circ\text{C}$
B	50	$0^\circ \sim +70^\circ\text{C}$
C	100	$0^\circ \sim +70^\circ\text{C}$
D	25	$-40^\circ \sim +85^\circ\text{C}$
E	50	$-40^\circ \sim +85^\circ\text{C}$
F	100	$-40^\circ \sim +85^\circ\text{C}$

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

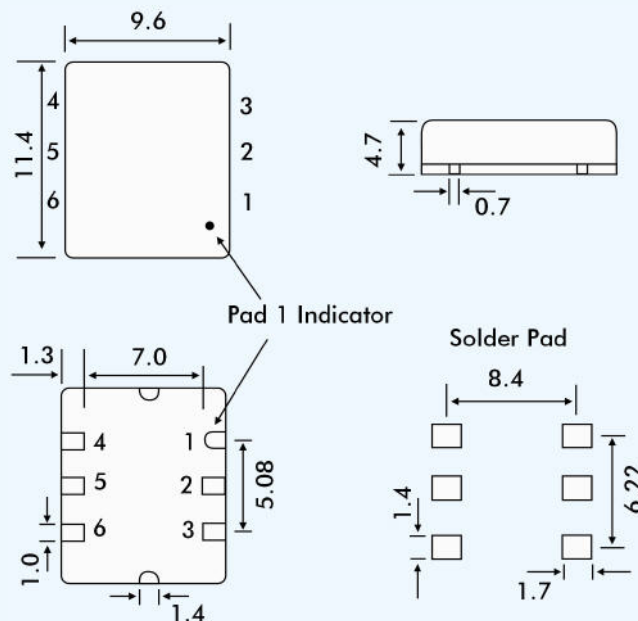
## ENABLE/DISABLE FUNCTION

Tristate Pad Status	Output Status
Not connected	LVPECL and Complimentary LVPECL enabled
Below 0.3V <sub>dd</sub> (Ref. to ground)	Both outputs are disabled (high impedance)
Above 0.7V <sub>dd</sub> (Ref. to ground)	Both outputs are enabled

## 11.4 x 9.6 x 2.5mm SMD VCXO



## OUTLINE & DIMENSIONS



### Pad Connections

- 1 Voltage Control (rounded pad)
- 2 Enable/Disable (Tristate)
- 3 Ground
- 4 Output
- 5 Complimentary Output
- 6 Supply Voltage

## PART NUMBERING

Example: **3GPF64GB-80N-60.000**

