

GXO-L51L

3.3V LVDS Oscillator for High Speed

Data Transfer

- Differential outputs
- RMS phase jitter 0.3ps
- Multiplier-free design
- Enable / disable tristate function
- Designed for high speed data transfer



CONFIGURABLE OPTIONS	
Parameter	Option Code
Frequency	
Frequency stability	
* see note below	
Any	
±100ppm	
±50ppm	В
±25ppm (<160MHz)	А
Operating temperature range	
Any	
-10 to +70°C	
-40 to +85°C	I

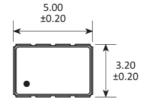
^{*} Frequency stability is inclusive of calibration @ 25°C, operating temperature range, supply voltage change and load change.

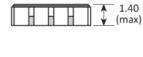


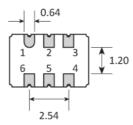
SPECIFICATIONS

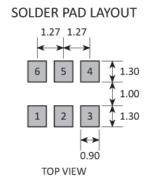
Frequency range		
Storage temperature range Supply voltage (V _{DD}) Supply current 66mA max Output LVDS Offset voltage 1.25V typ Differential output voltage Output load 100Ω Waveform 60:40 max (② 50%V _{P-P} symmetry Rise / fall time 0.7ns max (20 ~ 80%V _{P-P}) Enable / disable function	Frequency range	60.0 ~ 160MHz (3rd OT)
temperature range Supply voltage $+3.3V (\pm 5\%)$ (V_{DD}) Supply current $66mA max$ Output $LVDS$ Offset voltage $1.25V typ$ Differential output $0.247 \sim 0.454V (0.33V typ)$ voltage Output load 100Ω Waveform $60.40 max @ 50\%V_{P-P}$ symmetry Rise / fall time $0.7ns max (20 \sim 80\%V_{P-P})$ Enable / disable $Tistate (control via pad 1)$ function	Dimensions	5.0 x 3.2 x 1.4mm
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	<u> </u>	-40 to +85°C
$\begin{array}{lll} \text{Output} & \text{LVDS} \\ \\ \text{Offset voltage} & 1.25\text{V typ} \\ \\ \text{Differential output} & 0.247 \sim 0.454\text{V } (0.33\text{V typ}) \\ \\ \text{voltage} \\ \\ \text{Output load} & 100\Omega \\ \\ \text{Waveform} & 60:40 \text{ max } \textcircled{0} 50\%\text{V}_{\text{P-P}} \\ \\ \text{symmetry} \\ \\ \text{Rise / fall time} & 0.7\text{ns max } (20 \sim 80\%\text{V}_{\text{P-P}}) \\ \\ \text{Enable / disable} & \text{Tristate (control via pad 1)} \\ \\ \text{function} \\ \end{array}$		+3.3V (±5%)
Offset voltage 1.25V typ Differential output 0.247 \sim 0.454V (0.33V typ) voltage Output load 100 Ω Waveform 60:40 max @ 50%V _{P-P} symmetry Rise / fall time 0.7ns max (20 \sim 80%V _{P-P}) Enable / disable Tristate (control via pad 1) function	Supply current	66mA max
$\begin{array}{lll} \mbox{Differential output} & 0.247 \sim 0.454 \mbox{V (0.33V typ)} \\ \mbox{voltage} \\ \mbox{Output load} & 100 \mbox{\Omega} \\ \mbox{Waveform} & 60:40 \mbox{ max (0 } 50 \mbox{V}_{P-P} \\ \mbox{symmetry} \\ \mbox{Rise / fall time} & 0.7 \mbox{ns max (20 } \sim 80 \mbox{W}_{P-P}) \\ \mbox{Enable / disable} & \mbox{Tristate (control via pad 1)} \\ \mbox{function} \end{array}$	Output	LVDS
$\begin{array}{lll} \text{voltage} \\ \text{Output load} & 100\Omega \\ \text{Waveform} & 60:40 \text{ max } \textcircled{0} \text{ 50\%V}_{P-P} \\ \text{symmetry} \\ \text{Rise / fall time} & 0.7 \text{ns max } (20 \sim 80\%\text{V}_{P-P}) \\ \text{Enable / disable} & \text{Tristate (control via pad 1)} \\ \text{function} \end{array}$	Offset voltage	1.25V typ
Waveform 60:40 max @ 50%V _{P-P} symmetry Rise / fall time 0.7ns max (20 ~ 80%V _{P-P}) Enable / disable Tristate (control via pad 1) function		0.247 ~ 0.454V (0.33V typ)
symmetry Rise / fall time	Output load	100Ω
Enable / disable Tristate (control via pad 1) function	77476.5	60:40 max @ 50%V _{P-P}
function	Rise / fall time	0.7ns max (20 ~ 80%V _{P-P})
Phase jitter RMS 1ps max (0.3ps typ), 12kHz~20MHz		Tristate (control via pad 1)
	Phase jitter RMS	1ps max (0.3ps typ), 12kHz~20MHz

PACKAGE DRAWING









PAD	CONNECTION
1	Enable / disable
2	Not connected
3	Ground
4	Output 1 (Q)
5	Output 2 (Q)
6	Supply

Dimensions in mm



ORDERING INFORMATION

To request a quotation for the GXO-L51L please use the configurable options form to choose the options you require and then submit your configured product to our team. Our expert advisers are always happy to help with your requirements and can be contacted on +44 1460 256 100 or at sales@golledge.com.

Following product selection you will be issued with a seven character Golledge part number. Your Golledge part number is the internationally accepted Golledge manufacturing part number (MPN) that should be used for all project documentation, including bills of materials (BoMs) and purchase orders.

If you have any queries regarding any of our documentation our dedicated sales team will be happy to help.

ENABLE / DISABLE FUNCTION

Input (pad 1 [*])	Output 1 (pad 4)	Output 2 (pad 5)			
Open	Enabled	Enabled			
'1' level (≥0.7 V _{DD})	Enabled	Enabled			
'0' level (≤0.3 V _{DD})	High Impedanceive	High Impedance			

^{*}Enable / Disable function can be on pad 2 on request.

MARKING

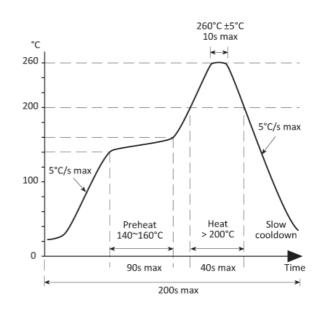


 Pin 1 Marking type: Laser

DC = Date Code in YM, eg. "GF" = Jun 2017

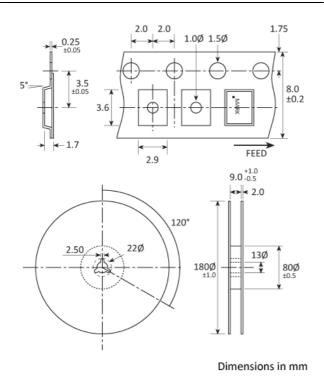
	Α	В	С	D	Ε	F	G	Н	J	K	L	M
Υ	1	2	3	4	5	6	7	8	9	0		
M	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

SOLDERING PROFILE





TAPE & REEL SPECIFICATION



HANDLING & STORAGE



Human Body Model (HBM) 1A (250V to <500V)



Moisture Sensitivity Level (MSL): 1 (or not applicable)

CONSTRUCTION

Ceramic body with gold-plated pads Metal lid, seam sealed

COMPLIANCE



Lead-free (< 0.1% by weight)



RoHS compliant with no exemptions. $$ See our

declaration



REACH compliant. See our statement



Free of conflict minerals. See our declaration



Free of Halogens. See our declaration



Free of Ozone-depleting substances. <u>See our</u>

declaration