

ENGINEERING CHANGE NOTIFICATION FORM

ECN: 80200571		REV: 1	ISSUE DATE: 11/16/2018
TYPE OF CHANGE: Component and Firmware Modification			
DETAILED DESCRIPTION OF CHANGE: The G2 version of the LC_XO includes an updated processor to address the LC_XO's original processor's end-of-life. The G2 version of the LC_XO also includes updated 0.929b firmware that operates with the new processor. The G2 version of the LC_XO is fit form and function compatible with the original LC_XO.			
REASON FOR CHANGE: Processor end-of-life			
PRODUCTS AFFECTED: 724783-01 Rev. * OSC,10MHZ,LC_XO GPSDO W/ OCXO (JLT PN: 1009301-ROHS) 158874A-01 Rev. 1.0 OSC,10MHZ,LC_XO GPSDO W/ TCXO (JLT PN: 1009309-ROHS)			
Firmware Version		Model	
Firmware 0.929 and previous versions for LC_XO		LC_XO (please list individual versions)	
Notes:			
AVAILABILITY:			
MILESTONE		DATE	
ECN release for hardware change and firmware release files		11/16/2018	
LC_XO G2 with firmware release 0.929b for the LC_XO provides the following improvements: Issue 1: The main processor on the original LC_XO product reached an end-of-life status and needed to be replaced to extend the lifetime of the LC_XO product. Resolution: The processor was changed to a similar processor in active production. The firmware was updated to support the new processor while maintaining functional compatibility. Issue 2: The new processor allows higher clock rates for increased time capture resolution Resolution: The 0.929b firmware improves the time capture resolution from $\pm 8\text{ns}$ to $\pm 5\text{ns}$ using the higher clock rates, while maintaining power consumption at the current specifications. Increased time capture resolution results in improved oscillator stability while locked to GPS or an external 1PPS.			
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PLEASE CONTACT JACKSON LABS TECHNOLOGIES, INC. WITH ANY QUESTIONS