

ENGINEERING CHANGE NOTIFICATION FORM

ECN: 80200593	REV: 1	ISSUE DATE: 04/21/2021				
TYPE OF CHANGE: Component and Firmware Modification						
DETAILED DESCRIPTION OF CHANGE: The FireFly-1A-G2 includes an updated processor to replace the original processor after it reached end-of-life. The FireFly-1A-G2 also includes updated 0.930 firmware that operates with the new processor. The FireFly-1A-G2 is form fit and function compatible with the original FireFly-1A.						
REASON FOR CHANGE: Processor end-of-life						
PRODUCTS AFFECTED:						
<table border="1"> <thead> <tr> <th>Firmware Version</th> <th>Model</th> </tr> </thead> <tbody> <tr> <td>Firmware 0.929 and previous versions for FireFly-1A</td> <td>All FireFly-1A variants</td> </tr> </tbody> </table>			Firmware Version	Model	Firmware 0.929 and previous versions for FireFly-1A	All FireFly-1A variants
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Notes:						
AVAILABILITY:						
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<p>FireFly-1A-G2 with firmware release 0.930 for the FireFly-1A provides the following improvements:</p> <p>Issue 1:</p> <p>The main processor on the original FireFly-1A product reached an end-of-life status and needed to be replaced to extend the lifetime of the FireFly-1A product.</p> <p>Resolution:</p> <p>The processor was changed to a similar processor in active production. The firmware was updated to support the new processor while maintaining functional compatibility.</p> <p>Issue 2:</p> <p>The new processor allows higher clock rates for increased time capture resolution</p> <p>Resolution:</p> <p>The 0.930 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.</p> <p>Issue 3:</p> <p>The new FireFly-1A-G2 adds an LED to indicate Lock to GPS.</p> <p>Resolution:</p> <p>The 0.930 firmware now supports LOCK LED indication.</p>						

REFERENCE DOCUMENTS/ATTACHMENTS:

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