Itron

Electric / Gas / Water
Information collection, analysis and application

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Federal Communications Commission
Authorization and Evaluation Division
7435 Oakland Mills Road
Columbia, MD 21046

Re: Model update
Model MLOG03, FCC ID: RIC-MLOG02

To Whom It May Concern,

Itron is seeking authorization of this Class II Permissive Change application for FCC ID: RIC-MLOG02. The MLOG02 radio has undergone a model update. Listed below are changes that have occurred between the MLOG02 and MLOG03 model update.

Mechanical

- The housing has changed, and now fully encloses the PCB and antenna
- The housing is made from polycarbonate
- The internal compartment of the housing including and surrounding the PCB is now fully encapsulated in a silicon potting compound
- Our vibration sensing means has changed and we now have a separate sensor attached to the main PCB via 3 wires
- The sensor is encapsulated in a stainless steel can and placed at the base of the design, close to the original sensor placement found in MLOG-02

Electrically

- The PCB layout has changed
- The RF filters on the RF front end have changed (we have added a differential filter and modified the single ended filter values and component types)
- Balun filter values have changed
- Component types have changed

- Decoupling components around the RF transceiver IC have changed in size and value
- The location of the internal battery has changed

Software

This has changed only in so far as layout between RF transceiver IC and processor required pin swapping. The RF protocol and communications between processor and RF transceiver IC have not changed.

The following components and operation parameters **remain the same** between MLOG02 and MLOG03:

- RF transceiver IC. Therefore the LO, IF remain the same.
- RF protocol
- Output transmit power
- Crystal remains the same part and value
- The TX / RF frequencies
- The antenna

End use

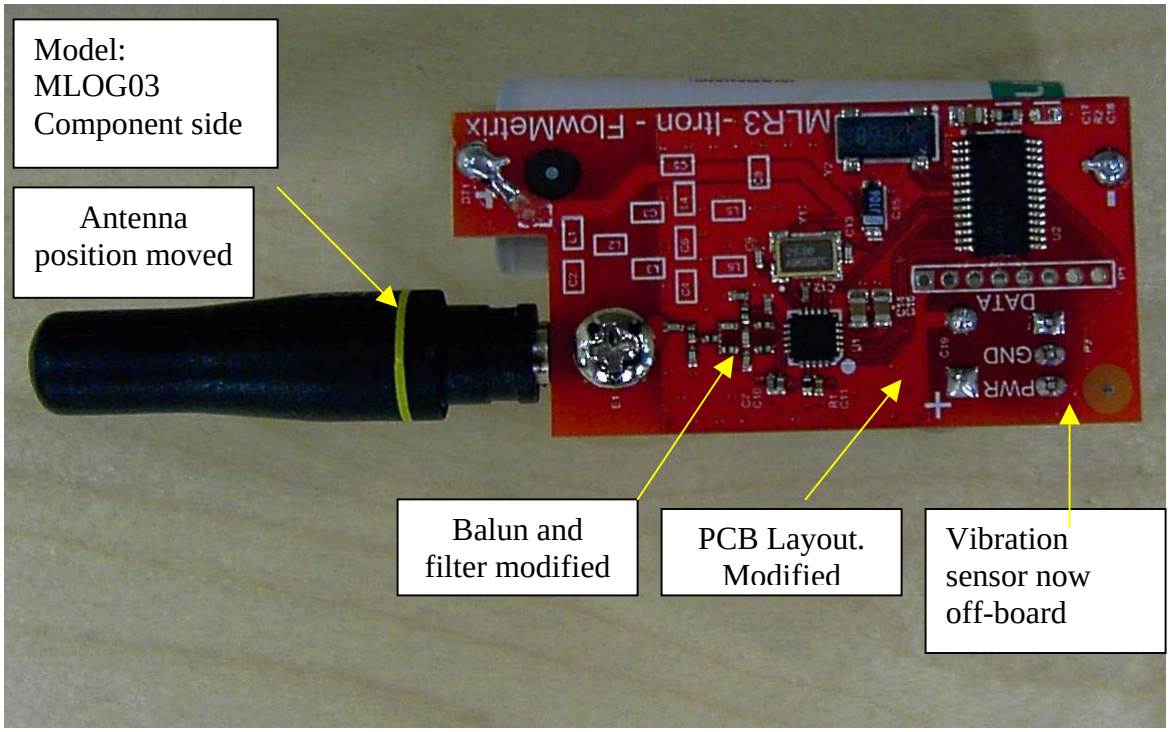
This remains the same; the unit will be attached to a mains water pipe.

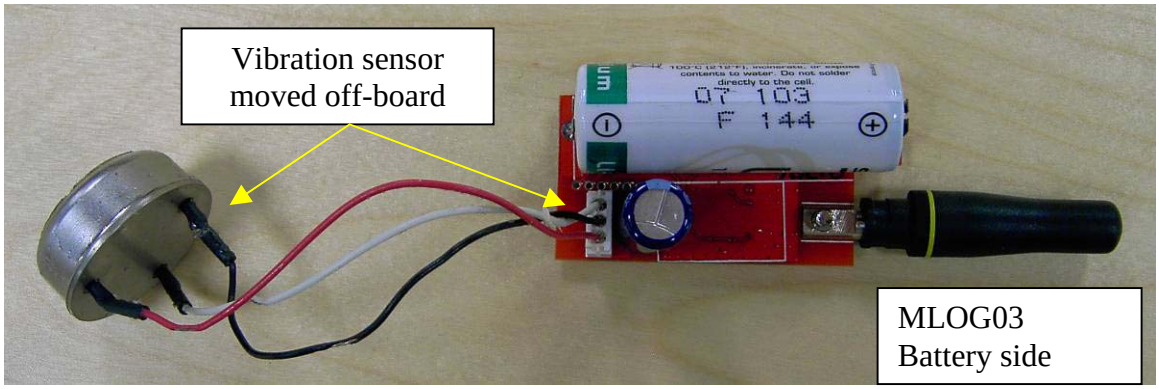
A test report and other technical exhibits have been submitted in support of the above changes. The device continues to be compliant with FCC requirements.

Sincerely,

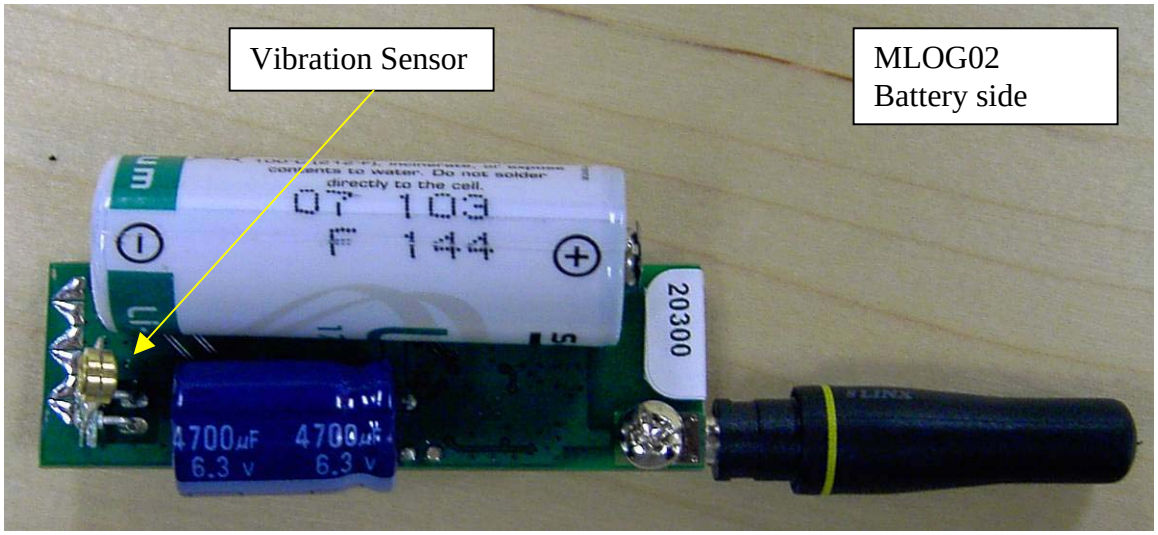
Stacy K. Destito

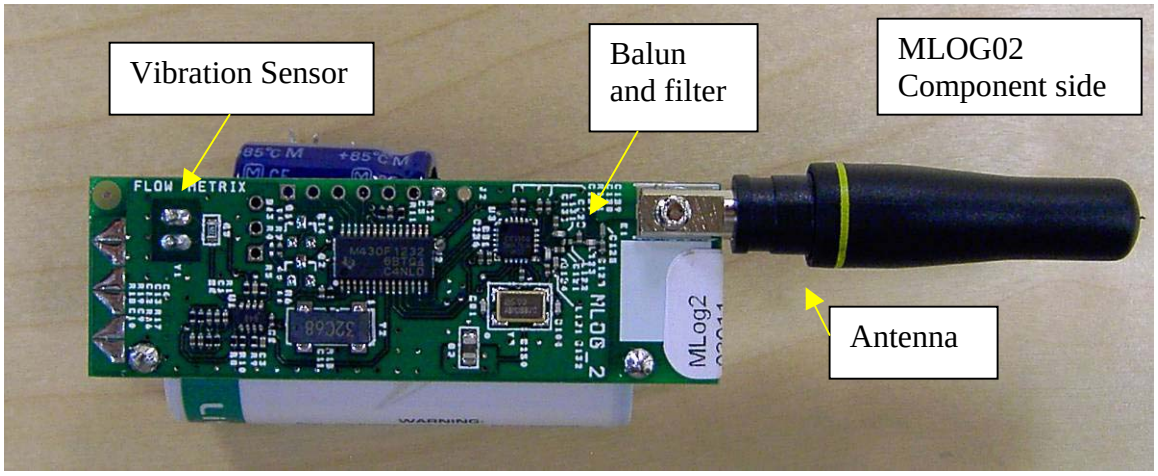
Patent & Regulatory Agent


Model:
MLOG03
Component side
Antenna
position moved
Balun and
filter modified
PCB Layout.
Modified
Vibration
sensor now
off-board


Vibration sensor
moved off-board
MLOG03
Battery side

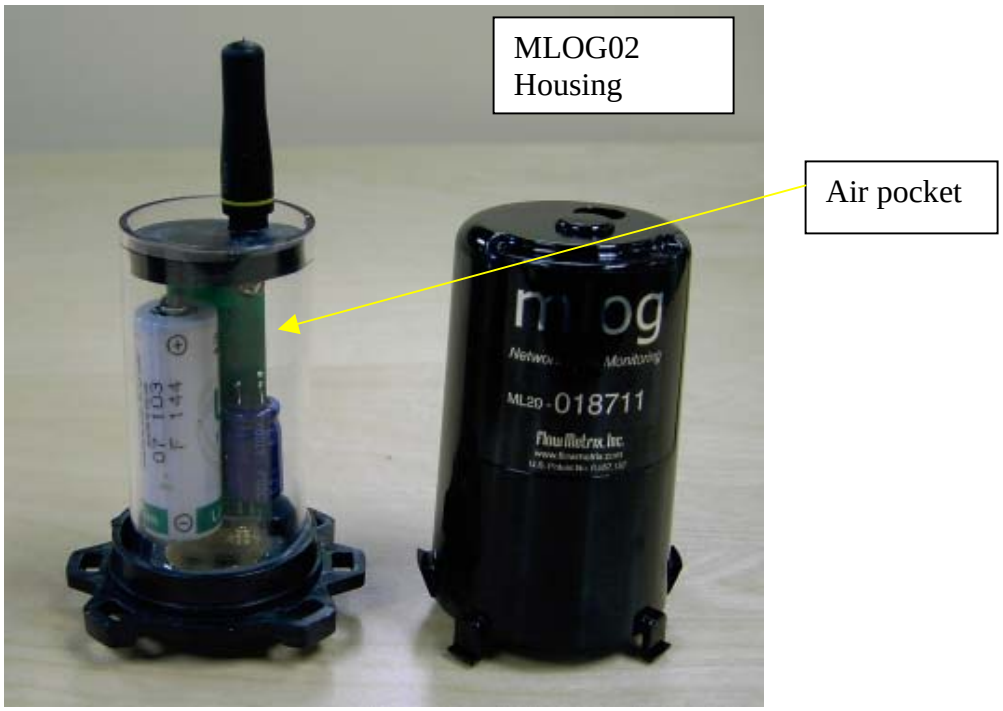
MLOG Radio Model 2 (MLOG02)

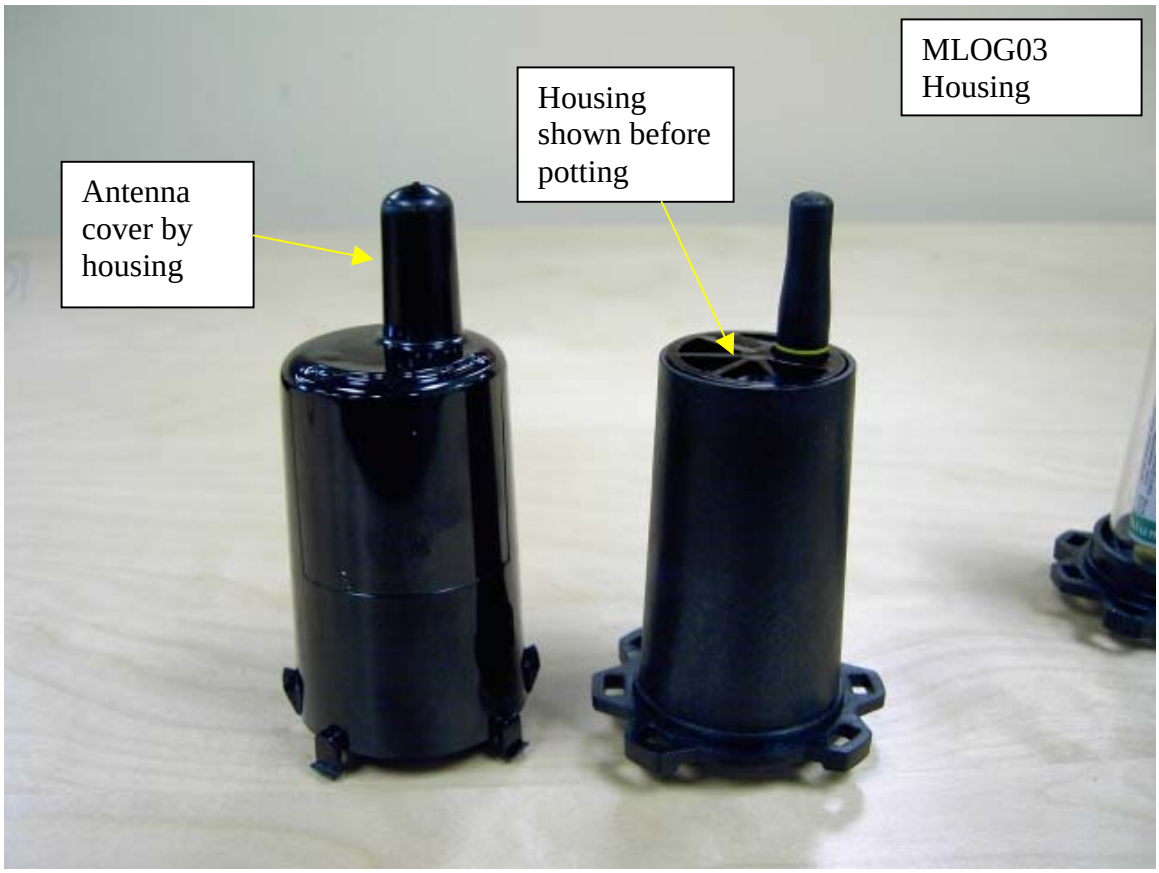




Housings


MLOG02 and MLOG03 Housing


MLOG02
Housing
Air pocket
ML20-018711
FlowMetrix Inc.


MLOG03
Housing
Housing
shown before
potting
Antenna
cover by
housing