

Arable Web Mark 2 Firmware 1.1.0.5 Release Notes

Doc Number: ARA2019-00019 Rev C

Date: December 20, 2019

Release Overview

This maintenance firmware release has a fix for BUGS-629 related to modem watchdog timer. The release has gone through connectivity testing in many countries (US, UK, Mexico, Canada, Ukraine, Poland, Germany, France, the Netherlands and Spain), it is released for use on all new manufactured Mark 2s and over-the-air on existing Mark 2s in the field.

Date	December 20, 2019
Device Compatibility	Arable Mark 2 Rev 3.0 and 3.1
Module Compatibility	Quectel BG96MAR02 A07M1G (AT&T)
Impact	High
Type	General Release
Version	1.1.0.5

List of Changes

New Features

Description	ID#
No new features	

Defect Fixes

Description	ID#
A modem watchdog timer was not triggering as expected in firmware 1.1.0.4 and as such could cause increased power consumption. This has now been resolved in firmware 1.1.0.5.	BUGS-629 FIR-180
The watchdog pat time (time for application to interrupt shutdown) is now 5 seconds. It was found that previous 16 seconds pat interval led to instances where watchdog would expire if one pat is missed causing a device reset unnecessarily.	FIR-186
Optimized Data Tx/Rx to/from modem while downloading data was implemented in firmware 1.1.0.5. This helps get rid of extra delays and instead makes smarter decisions on how to work on slow, congested networks.	FIR-182
The retry on GPS lock failure has been re-introduced in order to ensure smooth GPS access. It will be re-evaluated if we can remove the retries in future release and as such reduce power consumption in GPS low coverage/indoor environments.	FIR-187

Known Issues

Description	ID#
In order to ensure year-round operations with the firmware 1.1.0.5 idle power level, it is recommended to deploy with Solar Panel.	BUGS-630
The Mark 2 does not trigger re-deployment when the mount is inserted as for Mark 1. The Mark 2 re-deployment is done through the new User Button. Plan is not to change the logic, but to provide an explanatory sticker on the Mark 2 when shipped. That will added in future shipments.	BUGS-475
The Mark 2 will continue to attempt hourly sending even during a prolonged server/network outage and can drain the battery in a few days. A gradual back-off mechanism is considered for the future.	AR1-T114

