

## Product Division – Product Change Notice

### Product Information

PCN Tracking Number	735-00004
Issue Date	2017-04-07
Product Part Number	BMD-300-A-R BMD-301-A-R BMD-350-A-R
Customer Part Number	Not Applicable

### Change Contact

Contact	Rigado Product Support
Phone	+1 (971) 208-9870
Email	support@rigado.com

### Change Information

Detailed Description of Change	Factory firmware updated to revision AD: <ul style="list-style-type: none"> <li>• Change of Nordic Semiconductor SoftDevice S132 from v2.0.0 to v3.1.0</li> <li>• Change of RigDFU from v3.2.1 to v3.3.1</li> <li>• Change of BMDware from v3.1.1 to v3.2.0</li> <li>• Factory readback protection disabled (now handled by RigDFU v3.2.2 and later)</li> </ul>	
Method of identifying Changed Product	Product label firmware code updated to show “AD”	
Change Class / Reason for Change	MINOR / Bug fixes, performance enhancements, no hardware changes	
Anticipated Impact	Form	None
	Fit	None
	Function	<p>Loading custom firmware via SWD/JLink: Recovery/Erase step is no longer required as the IC is no longer read-back protected from the factory. MAC address can now be read from the UICR via the SWD interface.</p> <p>Loading custom firmware via OTA and serial bootloader: Either, 1) the custom firmware must be updated to use SD 132 v3.1.0 and RigDFU v3.3.1, or 2) the SD v132 and RigDFU must be downgraded to meet the custom firmware’s requirements.</p> <p>BMDware users with no programming: Added features available</p>
	Quality	None
	Reliability	None

### Change Schedule

Estimated Production Ship Date	2017-04-24
Supplier Qualification Plan Schedule	Not Applicable
Qualification Data Available	Not Applicable
Samples Available	Programming utilities available to load new firmware on existing modules via SWD/JLink and OTA/serial bootloader Contact <a href="mailto:support@rigado.com">support@rigado.com</a> for details
Last Date of Manufacture of Unchanged Product	Standard Production: 2017-02-21 Orderable with MOQ 5Kpcs and full lead-time

## Other Information:

Please see the [Rigado BMD-300 Series Factory Firmware AB to AD Migration Guide](#) for further details.

### BMDware Release Notes v3.2.1

#### Issues Fixed

*Fixed issue with DTM UART startup*

### BMDware Release Notes v3.2.0

#### Features Added

*SoftDevice S132 3.1.0 Support*

BMDware has been updated to support newer SoftDevices from Nordic Semiconductor. The main feature of this release for BMDware is support for Data Length Extension (DLE) and MTU negotiation. The maximum supported data length is 247 which works out to a payload size of 244 bytes. The MTU negotiation process will select the largest possible MTU based on the central and peripheral capabilities. If the central device supports DLE, it will be enabled. In addition, the minimum connection interval has been lowered to 7.5 ms which is the minimum for the S132.

*AT Mode Hot Swap*

AT Mode can now be controlled via the AT Mode pin without performing a system reset. This feature is not enabled by default. The following commands have been added:

AT Mode:

at\$hotswap <x> where <x> is `1` for `enable` and `0` for disable

Query the current state with:

at\$hotswap?

BLE:

Enable: 0x70 0x01

Disable: 0x70 0x00

Retrieve State: 0x71

When Hot Swap is enabled, any buffered data being transfer over BLE will be cleared. This setting is saved across resets and power cycles.

*BLE UART Improvements*

The BLE UART now takes advantages of the 6 packets per connection interval as specified by the Nordic SoftDevice. This means, even fairly speedy data transfers can be achieved (~5.6 KB/s) even with a 20 byte MTU. In addition, flow control has been improved to allow for much faster baud rates to work correctly.

*Other Features*

Added `at\$mac?` command to retrieve the MAC address via AT Mode.

#### Issues Fixed

*Fixed issue with UART flow control*

Flow control is now properly enabled. In addition, data coming in over BLE is buffered appropriately until it can be transmitted over the physical UART. Data coming into the BMD-300 over the UART is also appropriately buffered until it can be transmitted over BLE. RTS will be set when the UART input buffer is almost full and cleared once BLE transfers empty the buffer.

*Fixed device name permissions*

Device Name is now read only.

*Fixed UART enable glitch*

UART would occasionally send 0xFF or 0xFE byte to appear on the bus during power-up.

*Fixed RESET pin operation*

If the reset pin is held low, BMDware will now always reset.

## Revisions

Rev 1	2017-04-07	Initial Release
Rev 2	2017-07-28	Corrected PCN number in document body