

Product Change Notification

This document describes the RIIM SDK product changes. This document is applicable for the following modules:

RC1882-IPM
RC1882HP-IPM
RC1892HP-IPM

Further details are described in the latest revision of the Data Sheet, User Manual, and Errata Note if applicable.

SDK Product Change Notification

Radiocrafts defines product changes in firmware (FW) by:

- C:** Correction of an existing feature
- N:** Introduction of new features
- P:** Performance improvement

FW Revision	Change Notification	Date
0.9.1	N New product pre-release	2019-07-05
1.0.0	N New product release	2019-09-24
	N Sleepy Leaf nodes supported	
	N New ICI application examples	
	P Improved building system for ICI applications with helper scripts	
1.1.0	P More readable and detailed documentation	2020-02-28
	N New platform for Border Routers without Microchip ENC28J70	
	N UDP API added	
	N CoAP packet without response added ("Fire and forget")	
	N Multicast support added	
	N Link Layer Security (LLSEC) added	
	N Added static port maps in Border Router for direct access to all nodes in the network from outside (Ethernet)	
N Added Robustness Factor		
1.2.0	P Default startup output power set to 0 dBm	2020-04-30
	N Channel hopping added for 868 and 916 MHz	
	N Single channel support for both 868 and 915 MHz bands	
	N Support for RC1882HP and RC1892HP modules	
	N New ICI application example for UDP	

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2.0.0	P	Default output power set to module maximum	2020-01-22
	P	Number of user defined CoAP resources increased from 1 to 5	
	N	Added SLIP connection	
	N	Added possibility to read input voltage (e.g. Battery)	
	P	Increased number of GPIO handlers to 9, one for each GPIO	
	N	Added Adaptive Frequency Agility	
	N	Added Listen Before Talk	
	N	Added support for 1-hop multicast	
	P	Easier to use platform update scripts	
	N	New ICI application examples: <ul style="list-style-type: none"> - Redundant Border Router example - Transparent UART example - EEPROM example - Clock example 	
3.0.0	N	Added TX/RX pin control on UART for RS485	2021-09-17
	N	Added new UART reception termination criteria: <ul style="list-style-type: none"> • Intra byte timeout • Total transmission timeout • Termination byte • Use of length byte 	
	N/C	Wake on UART / GPIO responds faster in sleeping nodes	
	N	Reason of last module reset can be queried in ICI application	
	C	Removed implicit RSSI measurement in links	
	P	Reduced power consumption in TSCH sleeping mesh routers from minimum 180 uA to minimum 118 uA	
	P	Improved throughput in TSCH mode for data to border router.	
	C	Updated examples	
	N	Added possibility to set and get Ethernet MAC address	
	N	New frequency hopping bands for Vietnam and India	
	N	New selectable predefined TSCH settings: <ul style="list-style-type: none"> • Low power • Balanced • Low latency • High throughput 	
	Stability and bug fixes		
3.1.0	N	Microsoft Visual Code integration	2021-11-12
	C	Faster retransmission of lost packets in TSCH	
	C	Fixed issue with corrupt UART buffers when used together with I2C	
	C	UDP unable to send using IPv4 addressing is fixed	

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3.2.0	C	getNetworkState always returns ONLINE for BR	2022-02-11
	P	Multicasts can now be sent continuously without the need for occasional longer pauses	
	P	Network.setMaxBroadcastRate changes EB interval quicker	
	C	Crash when using multicast fixed	
	N	Setting PANID to 0xFFFF makes the node attempt to join networks with any other PANID	
	N	TSCH parameters can be set/changed in an active network	
	N	GPIO now has PWM control	
	C	UDP port number improvement when using Ethernet and IPv4	
	N	Added 2 new examples in SDK: <ul style="list-style-type: none"> • Auto joining using PANID 0xFFFF • CoAP sprinkler example 	
	P/C	Better TSCH timing synchronization between nodes	

Note! For new orders you may receive older versions subject to stock rotation as old versions already manufactured and on stock will be sold out first. This given that the reason for the new version is non-critical, such as performance upgrade or added functionality. If the change is critical, such as for regulations compliance, an Errata Note will be issued for the old version and stock material will be called back.

Known issues

Modules with bootloader 2.2.x or earlier will not be able to work with upgrades 2.0.0 or later.
Bootloader 2.2.x has been used in a minor sample production in 2019.

Hardware Product Change Notification

No hardware is changed

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