PCN – Product Change Notification

Topic:	**ODIN-W260-01B and ODIN-W262-01B**
	UBX-16030793
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1 Affected Products

Product Name	Order Number	Type No (Old)	Type No (New)	Remarks
ODIN-W260	ODIN-W260-01B	ODIN-W260-01B-00	ODIN-W260-01B-01	
ODIN-W262	ODIN-W262-01B	ODIN-W262-01B-00	ODIN-W262-01B-01	

2 Type of Change

[ ] Hardware modification
[x] Firmware update
[x] Others, documentation, labelling, type number

3 Description of Change

A new software version will be introduced in production of ODIN-W260-01B and ODIN-W262-01B. This version includes correction of an issue with the non-volatile memory management for user settings found in the current software.

More details regarding the issue is provided in the Appendix A.

3.1 Updated documentation

The following documentation has been updated to reflect the change in the products.

Document	Document No	Updates
AT Command Manual [1]	UBX-14044127	Applicable products updated
Extended Data Mode Protocol Specification [2]	UBX-14044126	Applicable products updated
ODIN-W2 Data Sheet [3]	UBX-14039949	Applicable products updated
ODIN-W2 Getting Started [4]	UBX-15017452	Applicable products updated
ODIN-W2 System Integration Manual [5]	UBX-14040040	Applicable products updated
Open Source Software Licenses [6]	UBX-15022695	Applicable products updated

4 Schedule

Estimated First Shipment Date[1]:	2017-01-16
Documentation:	Available

5 Customer Impact and Recommended Action

Customers placing orders on the existing order number will receive the updated software automatically after the estimated first shipment date.

u-blox has taken utmost care to ensure that the updated software is backward compatible with its predecessor. The update is done on low software level and is expected to be transparent in customer applications.

It is recommended to update existing ODIN-W260-01B and ODIN-W262-01B modules through a re-flash operation. The new software version is available on www.u-blox.com.

5.1 Unimpacted customers

It has been identified that customers who do not use Bluetooth and any of the following AT commands in their application are not affected:

AT+UWSCA=x,1

AT+UWAPCA=x,1

AT+UETHCA=1

AT+UBRGCA=x,1

AT+UPPPCA=1

AT&W, followed by AT+CPWROFF

AT+UFACTORY, followed by AT+CPWROFF

6 Reference Documents

[1] Short Range Modules AT Command Manual, UBX-14044127

[2] Extended Data Mode Protocol Specification, UBX-14044126

[3] ODIN-W2 Data Sheet, UBX-14039949

[4] ODIN-W2 Getting Started, UBX-15017452

[5] ODIN-W2 System Integration Manual, UBX-14040040

[6] Open Source Software Licenses Application Note, UBX-15022695

[1] The Estimated First Shipment Date is the forecasted date that a customer may expect to receive the changed product with the new Type Number. This is determined by the estimated date of inventory depletion on the PCN issue date. This may be affected by fluctuations in supply and demand. Consequently, although customers should be prepared to receive changed product on this date, u-blox will continue to ship pre-changed product until the inventory has been depleted. This may result in pre-changed product being shipped to customers after this forecasted date.

A Appendix – Detailed issue description

ODIN-W2 stores all settings in non-volatile memory, implemented in an embedded flash memory. The flash file system provides a garbage collection algorithm that eliminates erased data without compromising the valid data.

u-blox found an error in the garbage collection algorithm that can manifest itself as either the module losing user settings or, in an absolute worst case, as a module lock during a flash write.

This issue would appear once the first sector in the flash is completely filled and is due for garbage collection. If the customer application does not repeatedly store the new settings or use features in the software that does so, the problem will never occur. As the memory sector is large, it is not likely to happen in a short term scenario, but deployed over several years, the risk might increase.

The updated software in ODIN-W260-01B-01 and ODIN-W262-01B-01, corrects the issue in the garbage collection algorithm and handling of the non-volatile memory is secured for the use cases identified as problematic in the previous versions.