# Product Change Notification PCN# 20160901000



- PCN for SR-uSOM-MX6 Rev 1.3
- Transition from SR-uSOM-MX6 Rev 1.3 to SR-uSOM-MX6 Rev 1.5
- SR-uSOM-MX6 Last Time Buy (LTB) notification

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Simple. Robust. Computing Solutions

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# Background

#### Dear customer

SolidRun Ltd. is discontinuing production of devices SR-uSOM-MX6 Rev 1.3 and replacing them with SR-uSOM-MX6 Rev 1.5

Because you have purchased one or more of SolidRun Ltd. products affected by the discontinuation during the past twenty-four (24) months, we would like to know if you have any continuing requirements for the existing Revision in the future. We would appreciate your advising us of any such requirements and estimated quantities needed as soon as possible.

In an attempt to satisfy any continuing requirements you may have, SolidRun Ltd. is offering a non-cancelable Last Time Buy for the product.

SR-uSOM-MX6 Rev 1.3 Last Time Buy for models without wireless functions is August 1st 2017

SR-uSOM-MX6 Rev 1.3 Last Time Buy for models with wireless functions is January 1st 2017

SR-uSOM-MX6 Rev 1.5 samples available starting at Sept 1<sup>st</sup> 2016 in our online store at: https://www.solid-run.com/product-category/imx6-soms/

Please note that 4GByte RAM version in Rev 1.5 is not available due to size constraints. For customers who are interested in this configuration please use Rev 1.3.

We will contact you as soon as we have completed our review of all customer responses to determine the appropriate course of action required to satisfy your needs for the products. This notification period is per SolidRun Ltd. standard process.

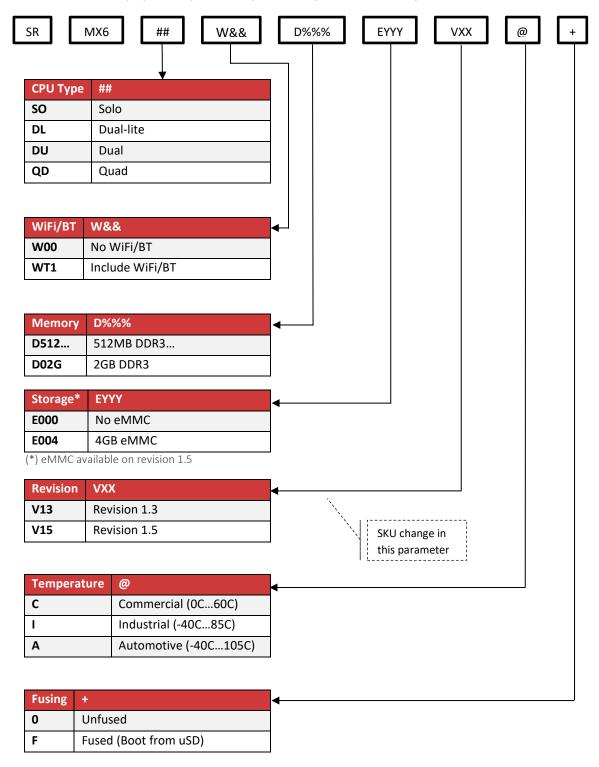


# Affected SKUs

The affected SKUs are all of the SKUs for iMX6 family of SoMs. Please see detailed information below on the changes of the SKUs.

#### SKU Format \*

(\*) for informational purposes only – for exact product SKU please refer to each product datasheet.



Please refer to PCN# 20160901001 for more information about the SKU structure.



#### Example for a changed SKU

EOL Product		Replacement Product	
SKU	Description	SKU	Description
SRMX6SOW00D512E000 <mark>V13</mark> C0	iMX6 Solo No WiFi/BT 512MB DDR No eMMC Com. Temp  <mark>R1.3</mark>  Unfused	SRMX6SOW00D512E000 <mark>V15</mark> C0	iMX6 Solo No WiFi/BT 512MB DDR No eMMC Com. Temp  <mark>R1.5</mark>  Unfused

### Motives

SolidRun Ltd. is discontinuing its SR-uSOM-MX6 Rev-1.3 and replacing it with SR-uSOM-MX6 Rev-1.5. The motivation of moving from Rev 1.3 to 1.5 from SolidRun point of view is to keep up with the demand of new features required from the field, and the upcoming EOL of the on SR-uSOM-MX6 WiFi SiP (System in Package) based on BCM4330.

Notes on compatibility and differences between Rev 1.3 and Rev 1.5

- 1. In Rev 1.5 the PCB, the two mechanical holes and placement of board to board headers is <u>footprint compatible</u> to Rev 1.3 without changes.
- 2. Replaced BCM4330 based SiP with TI WL1831MOD SiP (from the WiLink 8 family) affecting WiFi and Bluetooth.
- 3. Added option to support eMMC on SR-uSOM-MX6 Rev 1.5.
- 4. Added option to support SPI NOR flash on SR-uSOM-MX6 Rev 1.5.
- 5. Improved FlexCAN support.
- 6. Added elnk output interface support.
- 7. Placement of i.MX6 device and DDR components has shifted slightly. Due to that customer heatsink might need to be modified.
  - SolidRun will provide modified heatsink that supports both Rev 1.3 and Rev 1.5; and is compatible with previous heatsink power dissipation wise.



## Mechanical

- 1. Placement of antenna UFL connector has changed. Refer to the below diagram of placement of new antennas.
- 2. A second UFL antenna connector was introduced to support dual antenna TI WiLink 8 SKUs. Default build of the SR-uSOM-MX6 assumes single antenna.
- 3. Placement of i.MX6 device and DDR has shifted slightly. Refer to the below diagram.
- 4. Additional 3<sup>rd</sup> mechanical hole was added but can be used **ONLY** if eMMC is not assembled on SR-uSOM-MX6 Rev 1.5.

### Electrical

- 1. TI WiLink 8 uses same SD1 SDIO and UART4 interfaces to communicate with the WiFi and Bluetooth devices. The same GPIOs that controls enabling and disabling both Rev 1.3 and 1.5 WiFi/BT.
- 2. TI WiLink 8 main power is supplied from 3.3v rail (NVCC\_EIMO signals) vs. VIN\_5V0 in Rev 1.3. WiLink 8 typical max current is 285mA when transmitting (2.4GHz TX 20M SISO 6 OFDM mode).
- 3. Rev 1.5 includes an option to harvest SD3 interface from the 70 pin board to board header and use it to support an on-board eMMC device. Default build reserves Rev 1.3 functionality and does not include the on SR-uSOM-MX6 eMMC device.
- 4. Rev 1.5 supports on board Micron SPI NOR flash 24 ball T-PBGA. Default build does not assemble SPI ROM.
- 5. Harvest the 70pin header reserved pin connectivity and add FlexCAN signals, compliment the elnk interface signals. Refer to the Rev 1.5 simplified schematics for more information.

# Software

- 1. SolidRun will provide modifications guidance on porting the WiFi and Bluetooth support under Linux kernel 3.14.
  - The guidance will be in two forms patches on kernel 3.14 and patches that are already integrated in SolidRun i.MX6 Github kernel.
- 2. Software migration instructions will be posted on SolidRun i.MX6 MicroSOM wiki page
  - http://wiki.solid-run.com/doku.php?id=products:imx6:software
- 3. When using the more available pins on the 70 pin header, please refer to the Rev 1.5 simplified schematics published on SolidRun i.MX6 page Wiki pages  $\frac{1}{2}$ 
  - http://wiki.solid-run.com/lib/exe/fetch.php?media=imx6:microsom:docs:sr-usom-mx6-rev-1\_5-simplified-schematics.pdf

#### Contact

Please contact SolidRun if you have any questions.

For commercial and sales inquiries please email to: <a href="mailto:sales@solid-run.com">sales@solid-run.com</a>

For technical questions please email to: <a href="mailto:support@solid-run.com">support@solid-run.com</a>



# Appendix A

#### 6.4 WiLink 8 Module Markings

Figure 6-2 shows the markings for the TI WiLink 8 module.

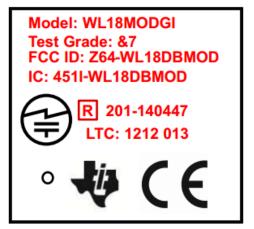


Figure 6-2. WiLink 8 Module Markings

Table 6-4 describes the WiLink 8 module markings.

Table 6-4. Description of WiLink 8 Module Markings

MARKING	DESCRIPTION
WL18 MODGI	Model
&7	Test grade (for more information, see Section 6.5, Test Grades)
Z64-WL18DBMOD	FCC ID: single modular FCC grant ID
451I-WL18DBMOD	IC: single modular IC grant ID
201-140447	R: single modular TELEC grant ID
YYWW SSF	LTC (lot trace code):  YY = year (for example, 12 = 2012)  WW = week  SS = serial number (01 to 99) matching manufacturer lot number  F = Reserved for internal use
<b>(1)</b>	TELEC compliance mark
CE	CE compliance mark

Further documentation on the WL1831 SiP can be found at:

http://processors.wiki.ti.com/index.php/WL18xx

http://www.ti.com/product/WL1831MOD



# Appendix B



#### Original file can be seen at:

 $\frac{\text{http://wiki.solid-run.com/lib/exe/fetch.php?media=imx6:microsom:docs:sr-usom-mx6-1.3-vs-}{1.5.pdf}$