

Release Note

EBC-RB01

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ABSTRACT

This document describes hardware and software information for EBC-RB01.

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1. Hardware Information

Model Name		EBC-RB01	Comment
Processor System	CPU	NXP ARM Cortex-A9 i.MX6 Dual 1 GHz	
Memory	Technology	DDR3 1066 MHz	
	Capacity	On-board DDR3 1GB	
	Flash	4 GB eMMC NAND Flash for O.S	
		4 MB SPI NOR Flash for Advantech boot loader	
Graphics	HDMI	1920 x 1080 at 60Hz	
Ethernet	Chipset	NXP i.MX6 integrated RGMII	
		Microchip LAN7500	
	Speed	2 x GbE (10/100/1000 Mbps)	RJ45 connectors with LED indicator
I/O	USB	3 x USB Type A	
	CAN	1	Follow Lincoln CAN schematic
RTC	IC	SEIKO	
	Battery	RTC battery with pigtail cable	
Watchdog Timer		MSP430	
Expansion	SD Socket	1 x SD slot(Only on EVT, DVT sample)	pin header
Power	Power Supply Voltage	40±2V	Component Tolerance 60V
	Power Type	DC-in	ATX PWR Conn. 2x2P Molex 15-97-8043
	Power Consumption	TBD	
Debug	USB OTG	1 micro USB	
LED	Indicator	Power	
		Green status	
		Red status	
Environment	Operational Temperature	-40 ~ 85°C	

	Operating Humidity	5%~95% Relative Humidity, noncondensing	
Mechanical	Chassis Dimensions (W x D x H)	146 x 102 (mm)	
Certifications	Operational	CE/FCC Class B	
Others		Coating (0.03-0.13mm)	CONAP® CE-1171
		4 x Mounting holes (Φ 0.156")	130 mils trace clearance on top/bottom layers.
			130 mils on internal layers also
		CPU heat sink mounting post length on the bottom side of the board to be 0.090 inch maximum.	

2. Software Information

- Release Contents
 - ◆ This document contains important information about the package contents, supported features, known issues and limitations in this release. This release contains the latest updates for the last general availability (GA) release.
- OS: Linux Yocto Project 2.1 (Krogoth) 4.1.15-2.0.0_ga
- U-Boot: 2016.03
- Linux OS Kernel and Device Trees: 4.1.15
- Advantech SUSI API built in

3. Release Version

Rev	Date	Description	Remark	Released by
V8700	2018/06/13	Add two led gpio pins to control green light and red light	Alpha release	Alex
V8490	2018/01/22	Fixed Ethernet function issue that it cannot work in u-boot	Alpha release	Alex
V8470	2018/01/03	Add USB booting function	Alpha release	Alex
V8360	2017/11/01	The first release	Alpha release	Alex

4. Image Build

- CPU core is i.MX6 Quad
 - ◆ The machine code of EBC-RB01 is **imx6qebcrs01a1**
- You can refer following URL link to build image
 - ◆ http://ess-wiki.advantech.com.tw/view/IoTGateway/BSP/Linux/iMX6/Yocto_LBV8_User_Guide

5. Add New Features

Features	Description	Comment
Boot	Add USB booting function	Add this function for V8470
HAB	Enable HAB feature	Add this function for V8360

6. Related Document

- Document of updating image method
 - ◆ i.MX6_EBC-RB01_Upgrade_Image_Method.pdf
- HAB Document
 - ◆ i.MX_6_Linux_High_Assurance_Boot_(HAB)_User's_Guide.pdf
 - ◆ i.MX_6_Linux_HAB_Test_Procedure.pdf

7. Fixed Bugs

Bug ID	Issue	Description
1	Ethernet function issue	Ethernet function (eth0) cannot work in u-boot. (V8490)

8. Won't Fixed Bug

Bug ID	Issue	Description
None		

9. Known Issues

Features	Description	Resolution/Workaround

10. Limitations

Features	Description	Resolution/Workaround