GR-peach Specification Rev.F
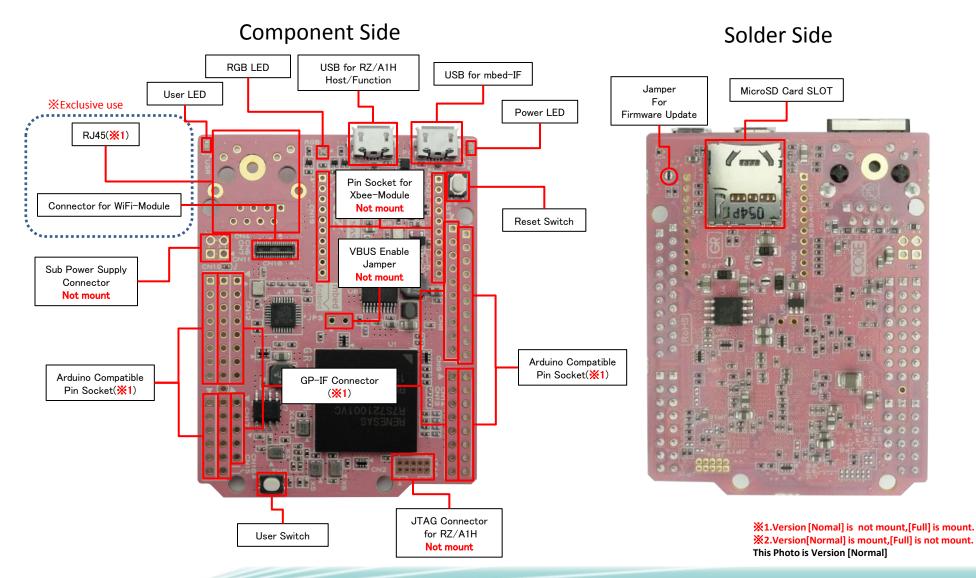
Parts	Manufacture	Model Number	Note
MPU	Renesas Electronics	R7S721001VLBG	Cortex-A9 RZ/A1H BGA 324pin RAM10MB Max:400MHz
FLASH ROM	Macronix	MX25L6435EM2I-10G	8MByte SOP 8pin (SPI Multi I/O)
External Memory	ALPS	SCHA4B0400	MicroSD Card SLOT (SPI)
Communication I/F Micro USB	JST	UB-MC5BR3-SD204-4S	RZ/A1H side MicroUSB Connector(HOST/FUNCTION)
			Mbed-IF side Debug/Programming MicroUSB Connector
Ethernet	MICROCHIP	LAN8710A	10/100BASE-TX -RJ45 Jack- (※1)(※2)
Wireless I/F 1	HIROSE	DF40C-30DP-0.4V(51)	Wi-Fi Module Connector For ROHM BP3595(Exclusive I/F -USB / UART-) (※1)
Wireless I/F 2	Hirosugi-keiki	FSS-21043-10 x2	For Xbee Module Connector (Not mount)
Expantion Connector	Hirosugi-keiki	FSS-41085-05 x1 FSS-41085-06 x2 FSS-41085-08 x5 FSS-41085-10 x2	Arduino Compatible Pin Socket(※2) 6pin x1 / 8pin x2 / 10pin x1
			Pin Socket for GR-Shield (※2) 5pin x1 / 6pin x1 / 8pin x3 / 10pin x1
Debug Connector	Hirosugi-keiki	PSS-720303-05	10pin JTAG Connector(CoreSight10) (Not mount)
Switch	ALPS	SKRPABE010	System Reset Switch x1
			User Switch x1
LED	ROHM	SML-D12P8W	Power LED -Green-(Uncontrollable)
		SML-D12U8W	User LED -Red- x1
		SMLP34RGB2W	Full Color LED x1
Power Supply	VBUS 1	DC 5V MicroUSB Connector(Connected mbed-IF)	
	VBUS 2	DC 5V MicroUSB Connector(Connected RZ/A1H)	
	Vin	DC 5.5～16V(Arduino Compatible Pin -Vin- / Auxiliary Power Connector)	
Board Size		53.34(W) x 67.58(D) (mm)	

※1.Exclusive use Ethernet,Wireless I/F 1
※2.Version [Nomal] is not mount,[Full] is mount.

Interface

Component Side

RGB LED

USB for RZ/A1H Host/Function

USB for mbed-IF

User LED

Power LED

※Exclusive use

RJ45(※1)

Connector for WiFi-Module

Pin Socket for Xbee-Module
Not mount

Reset Switch

Sub Power Supply Connector
Not mount

VBUS Enable Jamper
Not mount

Arduino Compatible Pin Socket(※1)

Arduino Compatible Pin Socket(※1)

GP-IF Connector (※1)

User Switch

JTAG Connector for RZ/A1H
Not mount

Solder Side

Jamper For Firmware Update

MicroSD Card SLOT

※1.Version [Nomal] is not mount,[Full] is mount.
※2.Version[Normal] is mount,[Full] is not mount.
This Photo is Version [Normal]

Block Diagram

VBUS-M

12MHz

MicroUSB

Reset Switch

Mbed-IF LPC11U35

JTAG

Arduino Connecotor 1

5V
3.3V
Vin
(5.5〜16V)

13.333MHz
48MHz
27MHz
22.5792MHz

MicroUSB

VBUS-R

Jamper

VBUS Switch TPS2041

Switch
LED(RED)
LED(RGB)

Xbee Connector 1
Xbee Connector 2

GR Connector 1
GR Connector 2
GR Connector 3
GR Connector 5

GR Connector 4

GR Connector 6

RZ/A1H

Reset Interface
UART Ch.2
JTAG Interface
Boot Mode Select

Clock Divider

USB HOST / Function Controller Ch.0

GPO
IRQ Contoroller
GPI

GPO x4

GPIO x11 (UART Ch.5/7) (SPI Ch.1) (SSI Ch.2) (CAN Ch.2) (TIMER) (IRQ)

GPIO x35 (LVDS) (Camera) (UART) (SPI) (I2C) (SSI) (SDIO) (MMC) (LIN) (SCI) (IEBus) (LCD) (PWM) (TIOC) (IRQ) (SPDIF)

CEU(NTSC)
USB Ch.1

Cortex-A9
Instruction 32kB Data 32kB L1 Cache
128kB L2 Cache
10MB RAM
DMA Controller
OS Timer
Watchdog Timer

SPI Multi I/O Bus Controller Ch.0
SPI Ch.2
Ethernet Controller (MII)
GPO

USB HOST Controller Ch.1
SDIO HOST Controller Ch.0
UART Ch.6
GPIO

GPI x6 (A/D Converter) (IRQ)

GPIO x8 (UART) (SPI) (I2C) (SSI) (CAMERA) (PWM) (TIMER) (IRQ) (LCD)

GPIO x8 (UART)(SPI)(SSI) (PWM)(IRQ)(TIMER) (SoundGenerator) (CAMERA) (LCD)

Serial FLASH ROM 8MB For Boot/OS
Micro SD Card SLOT

25MHz

Ethernet PHY LAN8710A

RJ45

WiFi I/F Connector For ROHM BP3595

Arduino Connecotor 2

Arduino Connecotor 3

Arduino Connecotor 4

Not mount

Version [Normal] is not mount,[Full] is mount

Pinassign(Arduino Compatible Pinsocket)

Solder Side

MicroSD Card Slot

Soler Side

Pinassign(GR-peach Expantion I/F)

Solder Side

JP21
JP7
JP6
JP16
JP17
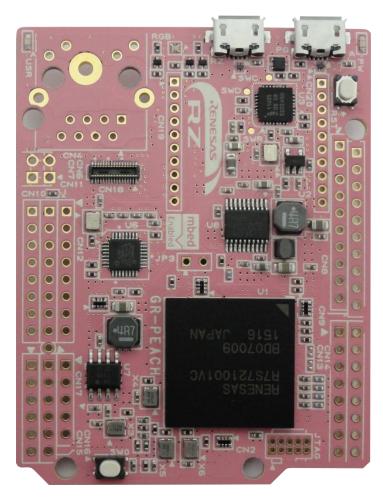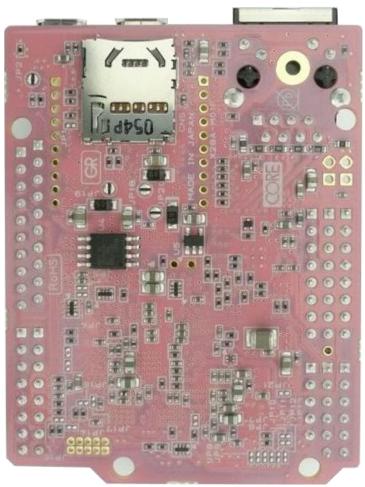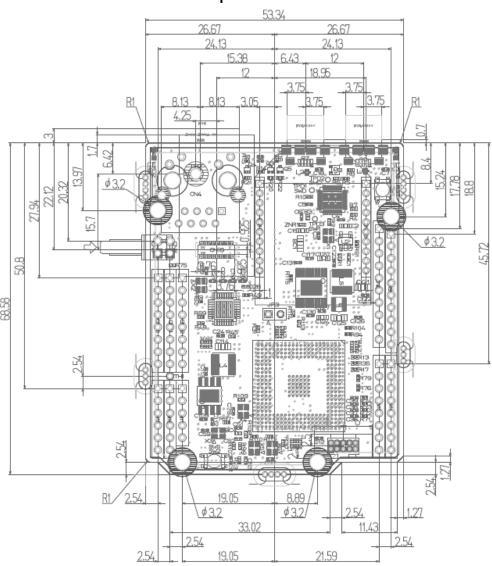
Appearance

Component Side

Solder Side

Mechanical Footprint

Component Side

Solder Side(top view)