

VK-RZ/A1LU

ver. 2.2

Embedded camera to USB/Wi-Fi/BLE
small form factor module with
Renesas Electronics RZ/A1LU ARM Cortex-A9 LSI

R7S721030VCFP

- 384MHz, 176 QFP, Fanless

3 MByte OnChip RAM

- Can RUN without ext. SDRAM

Up to 64 MByte NOR-Flash / 16 MB on board

- QSPI, 64MHz, Quad (Burst), 4-bit
- Direct fetch is possible

Up to 64 MByte SDRAM / 32 MB on board

- 64MHz, 16-bit

1 x USB Function

- USB 2.0, Micro USB connector

Micro SD

- SDHI1

User interface

- LED
- Push button

CMOS camera interface

- KBCR-M04VG-HPB2033VGA 640x480, up to 60fps, horizontal angle 98 degrees, vertical angle 75 degrees

Audio codec MAX9867ETJ+

- 3.5mm, 4 pole audio input / output jack

Wi-Fi / BLE

- Pre certified ESP32 wireless module

Exp. Ports

- RZ/A1LU - 14 I/O 3.3V
- UART
- SPI
- I2C
- ADC

Debug ports:

- RZ/A1 J-TAG 2x5 pins, Coresight™

DC IN +5V

- Consumption 250mA max

Operating temperature:

- -40 ... +85°

Dimensions:

- 45 mm x 45 mm
- Mounting holes 4 x Ø2 mm (40 mm x 40mm)



Planned Board Support Packages:

- H.264 video encoding
- H.264/MJPEG IP camera over RTSP/RTP
- UVC 1.0 compliant USB 2.0 camera supporting YUV, MJPEG, H.264
- MBED enabled
- u-boot, Linux - GCC
- FreeRTOS - IAR
- OpenCV V3.2
- IS2T MicroEJ demos - IAR
- .NET Micro Framework - GCC