

**Separate Sheet**

**Product Specifications of the R-Car W1R and R-Car W2H**

**R-Car W1R**

Part Number	R-Car W1R (uPD35901)
Standard	ARIB STD-T109 (Rev.1.2) PHY/MAC protocol
Frequency Band	760 MHz
Power Supply Voltage	3.3 V (IO), 1.2 V (Core)
CPU Core	32 bit (operating frequency 160MHz)
Built-in Memory	RAM: 128 KB, ROM: 32 KB
Host Interface	SDIO
Memory Interface	I <sup>2</sup> C
Package	176-pin Plastic FBGA 10mm x 10mm /0.65 ball pitch
Operating Temperature	Ta=-40°C - +85°C (JEDEC JESD 51-9), Tj = -40°C - +125°C

**R-Car W2H**

Part Number	R-Car W2H (R8A77460)	
Power Supply Voltage	1.8 V: (SD and JTAG), 1.2 V: (Core), 1.5 V: (DDR3-I/O SSTL), 2.5 V: (PCI-express), 3.3 V: (Others)	
CPU Core	ARM® Cortex®-A7 Dual	SH-4AL
Cache memory	L1 Instruction cache: 32 KB L1 Data cache: 32 KB L2 Cache: 512 KB	Cache memory
External memory	·Flash ROM and SRAM ·Data bus width: 32 bit	
Storage interface	·SD card host interface ·USB 2.0 host/ function interface	
External communication interface	·PCI Express interface ·Control area network(CAN) interface	
V2X Security function	High speed ECDSA engine NIST P-256 - 512, Brainpool support NIST / Brainpool Dynamic switching AES 128 – 256 support RSA, HASH, TRNG	

Package	501-pin FC-BGA 21 mm x 21 mm /0.80 ball pitch
Operating temperature	Ta = -40°C - +85°C (JEDEC JESD 51-9), Tc = -40°C - +115°C

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