

Separate Sheet

Main Specifications of the RH850/E2x Series

	RH850E2x-FCC2	RH850E2M	
Product name	R7F702Z12EDBG	R7F702002EABA R7F702002EABG	
Process	28nm	40nm	
CPU	G4MH core		
	6 cores (Dual core lock-step type: 4 cores)	2 cores (Dual core lock-step type: 2 cores)	
Maximum Operating Frequency	400 MHz		
Code Flash	16 MB	8 MB	
Data Flash(E2PROM)	256 KB + 64 KB	192 KB + 32 KB	
RAM	Local RAM 64 KB x 6 +Cluster RAM 1664 KB +Emulation RAM +Trace RAM	Local RAM 32 KB x 2 +Cluster RAM 704 KB	
DMA function	32 (sDMAC) / 128 (DTS)		
MPU (Memory Protection Unit) regions per core	24		
Engine Control Timer	ATU-V / GTM		
Other Timers	WDT: 6ch, OSTM: 7ch, Encoder Timer: 2ch	WDT:2ch, OSTM:3ch Encoder Timer:2ch	
Serial I/F	SCI: 4ch, High Speed-SPI: 1ch, HS-IF: 1ch		
	LIN: 8ch, PSI5-S: 1ch, PSI5:1ch	LIN: 6ch, PSI5-S: 1ch	
	CSIH: 8ch	CSIH: 6ch	
Ethernet	1ch		
Renesas High-Speed Bus	RHSB: 4ch	RHSB: 2ch	
CAN	CAN/CAN FD: 10ch	CAN/CAN FD: 5ch	
SENT	SENT: 20ch	SENT: 17ch	
ADC	SAR AD/Delta-sigma AD / Cyclic AD	96ch / 38ch / 8ch	80ch / 26ch / 8ch
Security module	ICU-M + IFS		
Debug I/F	NEXUS-JTAG, LPD, Aurora-I/F	NEXUS-JTAG, LPD	
Power Supply Voltage	4.5-5.5V/3.0-3.6V/1.025-1.155V	4.5-5.5V/3.0-3.6V/1.2-1.35V	
Other Peripherals	Safety function (Error Control Module, CRC, MISR [Multi-Input		

	Signature Generator], Voltage Monitor, Logic-BIST & Memory BIST, temperature sensor), Digital filter engine (DFE) etc.	
Package	468-pin P-BGA (25mm x 25mm) 373-pin P-BGA (21mm x 21mm)	373-pin P-BGA (21mm x 21mm) 292-pin P-BGA (17mm x 17mm)

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