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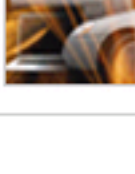
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R8A77240D500BG

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Products

MPU & MCU

SuperH Family

SH7780 Series

SH7724

R8A77240D500BG

Overview

Documentation

Design Support

Product Spec

Order Information

Package & Packing

Product Spec

Price	-	12-bit A/D Converter (ch)	0
Bit Size	32	Over 14-bit A/D Converter (ch)	0
Family	SuperH	Delta-Sigma A/D Converter	NO
Series	SH7780	8-bit D/A Converter (ch)	0
Group	SH7724	10-bit D/A Converter (ch)	0
Program Memory (KB)	0	12-bit D/A Converter (ch)	0
RAM (KB)	18	Over 14-bit D/A Converter (ch)	0
Data Flash (KB)	0	CAN (ch)	0
Program Memory Type	ROMless	Ethernet	YES
Cache Memory	YES	Ethernet Remarks	10Mbps/100Mbps
Cache Memory Remarks	32K (Instruction), 32K (Data), 256K (L2 Cache), 4-way	USB Host	YES
Pin Count	449	USB Peripheral	YES
CPU	SH-4A	USB Ports (ch)	2
Max. Freq (MHz)	500	USB Hi-Speed Support	YES
Sub-clock (32.768 kHz)	NO	USB Endpoints	10
On-chip Oscillator	NO	USB Isochronous Transfer Support	YES
On-chip Oscillator Freq. (MHz)	-	USB Remarks	Low-speed Support (Host only)
PLL	YES	Clocked Serial Interface (ch)	10
RTC	YES	SPI (ch)	2
Power-On Reset	YES	UART (ch)	7
Low Voltage Detection	NO	I2C (ch)	2
Memory Management Unit	YES	LIN (ch)	0
Floating Point Unit	YES	IEBus (ch)	0
DMA	YES	Serial Interface Remarks	MSIOF (SCI:2ch/SPI:2ch), SCIF (SCI:3ch/UART:3ch), SCIFA (SCI:3ch/UART:3ch), IrDA (UART:1ch), FSI (SCI:2ch), I2C:2ch
DMA Remarks	DMAC x 6ch x 2, 2D-DMAC x 8ch, SPU2 (DMAC x 3ch), EtherMAC(E-DMAC x 1ch)	LCD Segment Count	0
External Bus Expansion	YES	LCD Remarks	-
External Interrupt Pins	9	Display Function	YES
I/O Ports	180	Display Function Remarks	LCDC :-SXGA, VOU : 720x240
8-bit Timer (ch)	0	Operating Voltage Max (V)	3.6
16-bit Timer (ch)	4	Operating Voltage Min (V)	2.7
32-bit Timer (ch)	7	Power Supply	VccQ = VccQ_SDC = 2.7-3.6V, VccQ1 = VccQ_LCD = VccQ_VIO = VccQ_MMC = VccQ_SR = 1.65-1.95V/2.7-3.6V, AVcc = DV33 = AV33 = 3.0-3.6V, VDD = VDD_PLL = VDD_FLL = 1.25-1.36V, DV12 = AV12 = UV12 = 1.15-1.30V, VccQ_DDR = 1.7-1.9V
Watchdog Timer (ch)	1	Operating Temperature Max (°C)	85
Other Timers	-	Operating Temperature Min (°C)	-40
PWM Output	4	Operating Temperature Remarks	Ambient Temperature
3-phase PWM Output Function	NO	Remarks	-
8-bit A/D Converter (ch)	0	Production Status	Mass Production
10-bit A/D Converter (ch)	0		

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Order Information

Orderable Part No.	Production Status.	Packing	Environmental	remark
R8A77240D500BG#U0	Mass Production	Tray	Pb Free	-

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Package & Packing

prbg0449ga_a

fig0013e

Package	
Renesas code	PRBG0449GA-A
Previous code	BP-449V
JEITA code	P-FBGA449-21x21-0.80
Name	FBGA
Terminal count	449
Terminal pitch (mm)	0.8
Dimensions (mm)	21x21
Mass (g) [Reference value]	1.4
Mounting height (mm) [MAX]	1.9
Terminal material - Base	Sn-Ag-Cu
Terminal material - Surface	-
Drawing Link	prbg0449ga_a
Mount pad	fig0013e

Packing	
Container JEDEC tray	tray0086
Packing JEDEC Tray Complete dry pack	tray-D

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