

R8A77800BNBG

User's Manual: Hardware



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- Design Support
- Documentation
- Sample Code
- Software & Tools
- Ordering

Product Spec



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Basic Information

Product Status	Mass Production
Family	SuperH
Series	SH7780
Group	SH7780

Memory

Program memory	0 KB ROMless
RAM	16 KB
Cache Memory Remark	32 KB (instruction), 32 KB (operand), 4-way set associative

CPU (Bit, Clock, DMA, External Bus etc)

CPU	SH-4A (32-bit)
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Recommended Product

Orderable Part Name **R8A77800BNBGV#UM**

Star Product -

Product Longevity Program (PLP)

Production Status **Mass Production**

EU RoHS -

RoHS-pdf (China-RoHS) -



Max. Frequency	400 MHz
PLL	YES
Real-Time Clock (RTC)	YES
Power-On Reset	YES
Memory Management Unit	YES
Floating Point Unit	YES
DMA Remarks	DMAC x 12 ch
External Address/Data Bus	YES
External Interrupt Pins	9
I/O Ports	83



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Timers	
16-bit Timers	4 ch
32-bit Timers	6 ch
Watchdog Timers	1 ch

Interfaces	
CSIs	4 ch
SPIs	1 ch
UARTs	2 ch
Serial Interface Remarks	SCIF (CSI:2ch/UART:2ch), SIOF (CSI:1ch), HSPI (SPI:1ch), SSI (CSI:1ch)

Operating Conditions	
Operating Voltage	3 to 3.6 V
Power Supply	VDDQ = 3.0 to 3.6V, VDD = 1.25V
Operating Temperature	-20 to 75 °C (Ambient Temperature)



Package	
Pins	449
Terminal pitch (mm)	0.8 mm
Package Type	FBGA
Dimensions (mm)	21x21 mm ²
Drawing Link	 prbg0449ga_a
Mount pad	 fig0013e
Mounting height (mm)[MAX]	1.9 mm
Mass (g) [TYP,]	1.4 g
Renesas code	PRBG0449GA-A (old: BP-449V)
JEITA code	P-FBGA449-21x21-0.80
Terminal material - Base	Sn-Ag-Cu
Terminal material - Surface	-

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Orderable Part Name	Package Code	Production Status	Request Samples	Request Pricing	Distributor Stock	Distributors	Distributor Purchase	EU RoHS	RoHS-pdf (China-RoHS)	1000 Piece Budgetary Price	Star Product	Product Longevity Program (PLP)
R8A77800BNBGV#UM	[object Object]	-	Mar, 2025	Mass Production	-	-	call	-	-	-	-	Contact
R8A77800BNBGV	[object Object]	-	Mar, 2025	Mass Production	-	-	call	-	-	2	ARROW ELECTRONICS INC.	Buy

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Related Tool

Tools Orderable Part Number(s)	Production Status	Manufacturer	Suggested Single Tool Price	Description	Distributor Stock	Distributors	Distributor Purchase
YRTA-HEWSH-1UL	Mass Production	Renesas	\$2557.54	HEW IDE & C Compiler SH 1 User LAN	-	-	Contact
YRTA-HEWSH-1U	Mass Production	Renesas	\$2382.35	HEW IDE & C Compiler SH 1 User + HW Key	-	-	Contact
HS0005KCU02H	Mass Production	Renesas	\$1905.88	On-Chip Debug Emulator E10A-USB w/ Trace	-	-	Contact
HS0005KCU01H	Mass Production	Renesas	\$1152.94	On-Chip Debug Emulator E10A-USB	4	ARROW ELECTRONICS INC.	Buy

Recommended Product

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Star Product	-
Product Longevity Program (PLP)	
Production Status	Mass Production
EU RoHS	-
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