

# R8A7780BDBG

[User's Manual: Hardware](#)



- [Product Info](#)
- [Design Support](#)
- [Documentation](#)
- [Sample Code](#)
- [Software & Tools](#)
- [Ordering](#)

## Product Spec

- [Basic Information](#)
- [Memory](#)
- [CPU \(Bit, Clock, DMA, External Bus etc\)](#)
- [Timers](#)
- [Interfaces](#)
- [Operating Conditions](#)
- [Package](#)

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)

## Recommended Product

Orderable Part Name **R8A7780BDBGV**

Star Product -

Product Longevity Program (PLP)

Production Status **Mass Production**

EU RoHS -

RoHS-pdf (China-RoHS) -

**Distributor** **Stock**

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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



 [Back to Top](#)

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	-40 to 85 °C (Ambient Temperature)



Package	
Pins	449
Terminal pitch (mm)	0.8 mm
Package Type	FBGA
Dimensions (mm)	21x21 mm <sup>2</sup>
Drawing Link	 <a href="#">prbg0449ga_a</a>
Mount pad	 <a href="#">fig0013e</a>
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	-

 [Back to Top](#)



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# R8A77800BDBG

User's Manual: Hardware



Product Info	Design Support	Documentation	Sample Code	Software & Tools	Ordering
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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)
R8A77800BDBGV	[object Object]	-	Mar, 2025	Mass Production	-	-	call	-	-	28	ARROW ELECTRONICS INC.	<a href="#">Buy</a>
R8A77800BDBGV	[object Object]	-	Mar, 2025	Mass Production	-	-	call	-	-	-	-	<a href="#">Contact</a>

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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	-	-	<a href="#">Contact</a>
YRTA-HEWSH-1U	Mass Production	Renesas	\$2382.35	HEW IDE & C Compiler SH 1 User + HW Key	-	-	<a href="#">Contact</a>
HS0005KCU02H	Mass Production	Renesas	\$1905.88	On-Chip Debug Emulator E10A-USB w/ Trace	-	-	<a href="#">Contact</a>
HS0005KCU01H	Mass Production	Renesas	\$1152.94	On-Chip Debug Emulator E10A-USB	4	ARROW ELECTRONICS INC.	<a href="#">Buy</a>

## Recommended Product

Orderable Part Name	R8A77800BDBGV
Star Product	-
Product Longevity Program (PLP)	
Production Status	Mass Production
EU RoHS	-
RoHS-pdf (China-RoHS)	-

Distributor	Stock	
ARROW ELECTRONICS INC.	28	<a href="#">Buy</a>



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