



UPD70F3529GMA9-GBK-Q-G
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UPD70F3529GMA9-GBK-G

Product Info	Design Support	Documentation	Sample Code	Software & Tools	Ordering
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Product Spec



- Basic Information
- Memory
- CPU (Bit, Clock, DMA, External Bus etc)
- Timers
- Analog
- Interfaces
- Display Functions
- Operating Conditions
- Remarks
- Package

Basic Information	
Product Status	Mass Production
Family	V850
Series	V850E2/Dx
Group	V850E2/Dx4-H

Memory	
Program memory	2048 KB Flash memory
RAM	96 KB
Data Flash	32 KB
Cache Memory Remark	2 way associative (4 KB/way)

CPU (Bit, Clock, DMA, External Bus etc)	
CPU	V850E2M (32-bit)
Max. Frequency	80 MHz
Sub-Clock (32.768 kHz)	YES
On-chip Oscillator Freq.	240kHz/8MHz
PLL	YES
Real-Time Clock (RTC)	YES
Power-On Reset	YES
Low Voltage Detection	YES
DMA Remarks	DMAC x 8 ch
External Interrupt Pins	9
I/O Ports	127

Timers	
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16-bit Timers	48 ch
32-bit Timers	4 ch
Watchdog Timers	2 ch
Other Timers	Timer for OS x 1 ch
PWM Output	45

Analog	
A/D Converters	10-bit x 12 ch, 12-bit x 12 ch

Interfaces	
CAN	3 ch
CSIs	2 ch
SPIs	1 ch
UARTs	2 ch
I2Cs	2 ch
LIN	2 ch
Serial Interface Remarks	I2S 1ch

Display Functions	
Operating Voltage	2.7 to 5.5 V
Power Supply	For CPU core: 2.7 - 5.5 V, For I/O: 2.7 - 5.5V (For B0VDD: 2.7 - 3.6 V), For A/D: 2.7 - 5.5 V
Operating Temperature	-40 to 105 °C (Ambient Temperature)

Operating Conditions	
High-resolution display controller	Video Output 1ch

Remarks	
Remarks	Automotive 32-bit microcontroller (V850E2/DK4-H)

Package	
Pins	176
Terminal pitch (mm)	0.5 mm
Package Type	HLFQFP
Dimensions (mm)	24x24 mm ²
Drawing Link	 t176gm-50d-gbk
Mount pad	 fig0014e
Mounting height (mm)[MAX]	1.6 mm
Mass (g) [TYP,]	1.9 g
Renesas code	PLQP0176KF-B (old: T176GM-50D-GBK)
JEITA code	P-HLFQFP176-24x24-0.50

Remarks	HLQFP(matrix line),PPF TYPE
Terminal material - Base	Cu alloy
Terminal material - Surface	Ni/Pd/Au

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