Microchip latest AVR Families

New AVR-DA Family

The new AVR-DA family of microcontrollers feature the well-known AVR® CPU, now running at up to 24 MHz across the full supply voltage range of 1.8V to 5.5V. The family includes 32 KB, 64 KB and 128 KB Flash variants in 28- to 64-pin package options. The AVR-DA family is designed to bring capacitive touch sensing and real-time control functions to applications including industrial control, home appliance products, automotive and Internet of Things (IoT).

The family uses the latest Core Independent Peripherals with low power features and 5V operation for increased noise immunity. The Event System, Configurable Custom Logic (CCL), along with intelligent analog peripherals, like 12-bit differential ADC, Zero-Cross Detect (ZCD), DAC and the latest generation Peripheral Touch Controller (PTC) with driven shield technology make the AVR-DA family perfect for low-latency control applications and capacitive touch user interfaces. The high memory density of the AVR-DA family is well suited for communications stack intensive applications, both wired and wireless.

AVR128DA64

The AVR128DA64 microcontroller is the first member of the AVR-DA family featuring the AVR processor with hardware multiplier - running at up to 24 MHz and with 128 KB Flash, 16 KB SRAM and 512 bytes of EEPROM in 64-pin packages. The AVR128DA64 will be available in TQFP and VQFN package options.

The AVR128DA64 product supports as many as 46 self-capacitance and 529 mutual capacitance touch channels, which makes the AVR-DA the perfect choice for human interface applications where multiple capacitive touch keys, sliders, wheels or 2D surface are required.

Parametrics

Name	Value
Program Memory Type	Flash
Program Memory Size (KB)	128
CPU Speed (MIPS/DMIPS)	24
SRAM (KB)	16
Data EEPROM/HEF (bytes)	512
Digital Communication Peripherals	6-UART, 2-SPI, 2-I2C
Timers	7 x 16-bit
ADC Input	22 ch, 12-bit
Number of Comparators	3
Temperature Range (°C)	-40 to 125
Operating Voltage Range (V)	1.8 to 5.5
Pin Count	64
Low Power	Yes

Functional Safety:

This product is recommended for safety critical applications targeting both industrial and automotive products (IEC 61508 and ISO 26262). Necessary documentation such as FMEDA report and Safety Manual can be provided on request. Certified development tools are also available for this product.

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