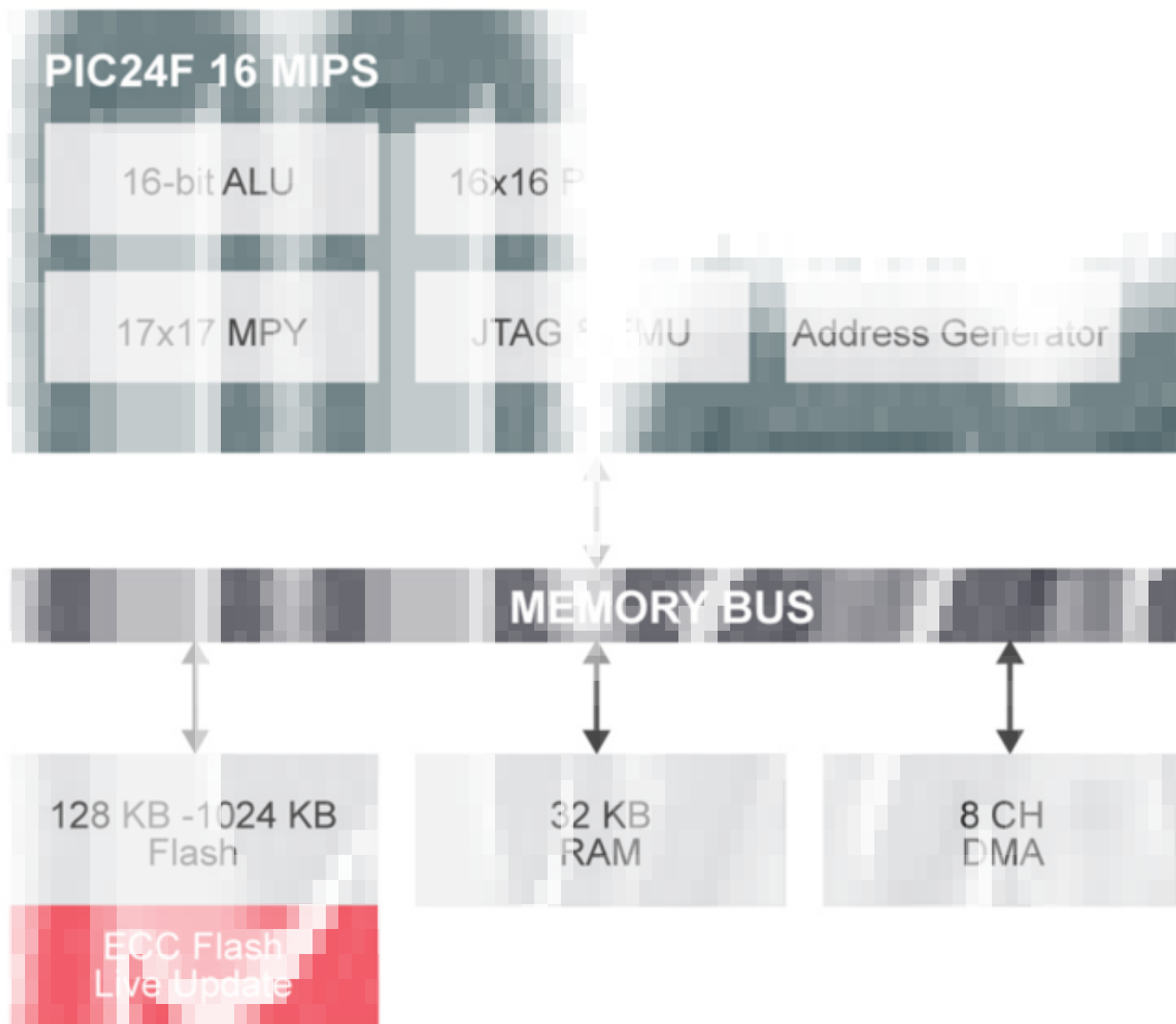Microchip rozšíril ponuku o nová rodinu 16-bitových mikrokontrolérov PIC24F s označením "GB6", s pridanou Flash (ECC) pamäťou až do 1MB a RAM až do 32KB.

Vlastnosti

- CPU
    - Modified Harvard Architecture

    - Up to 16 MIPS Operation @ 32 MHz

    - 8 MHz Internal Oscillator:
     - 96 MHz PLL option
     - Multiple clock divide options
     - Run-time self-calibration capability for maintaining better than ±0.20% accuracy
     - Fast start-up

    - 17-Bit x 17-Bit Single-Cycle Hardware Fractional/Integer Multiplier

    - 32-Bit by 16-Bit Hardware Divider

    - 16 x 16-Bit Working Register Array

    - C Compiler Optimized Instruction Set Architecture

    - Two Address Generation Units for Separate Read and Write Addressing of Data Memory

- Analog Features
    - 10/12-Bit, up to 24-Channel Analog-to-Digital (A/D) Converter:
     - 12-bit conversion rate of 200 ksps
     - Auto-scan and threshold compare features
     - Conversion available during Sleep

    - Three Rail-to-Rail, Enhanced Analog Comparators with Programmable Input/Output Configuration

    - Charge Time Measurement Unit (CTMU):
     - Used for capacitive touch sensing, up to 24 channels
     - Time measurement down to 100 ps resolution

- Dual Partition Flash with Live Update Capability
    - Capable of Holding Two Independent Software Applications, including Bootloader

    - Permits Simultaneous Programming of One Partition while Executing Application Code from the Other

    - Allows Run-Time Switching Between Active Partitions

- Low-Power Features
    - Sleep and Idle modes Selectively Shut Down Peripherals and/or Core for Substantial Power Reduction and Fast Wake-up

    - Doze mode Allows CPU to Run at a Lower Clock Speed than Peripherals

    - Alternate Clock modes Allow On-the-Fly Switching to a Lower Clock Speed for Selective Power Reduction

    - Wide Range Digitally Controlled Oscillator (DCO) for Fast Start-up and Low-Power Operation

- Universal Serial Bus Features
    - USB v2.0 On-The-Go (OTG) Compliant

    - Low-Speed (1.5 Mb/s) and Full-Speed (12 Mb/s) USB Operation in Host mode

    - Full-Speed USB Operation in Device mode

- High-Precision PLL for USB

- USB Device mode Operation from FRC Oscillator – No Crystal Oscillator Required

- On-Chip USB Transceiver with Interface for Off-Chip USB Transceiver

- Supports Control, Interrupt, Isochronous and Bulk Transfers

- On-Chip Pull-up and Pull-Down Resistors

Blokové zapojenie

- High-Precision PLL for USB

- USB Device mode Operation from FRC Oscillator – No Crystal Oscillator Required

PIC24F 16 MIPS

16-bit ALU

16x16

17x17 MPY

JTAG MU

Address Generator

MEMORY BUS

128 KB - 1024 KB
Flash

ECC Flash
Live Update

32 KB
RAM

8 CH
DMA

Cena

[Microchip direct](#) ponúka PIC24FJ1024GB610T-I/PT v púzdre TQFP100 za 4,20 Eur za kusové množstvo.

Odkazy
[GB6 Family Datasheet](#)

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Odkazy
[GB6 Family Datasheet](#)

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