

PIC32CXMTG

Key

- Digital
- Analog
- Memories, bridges
- Backup Area
- Processor and Crypto-accelerators

Serial Wire / JTAG Debug Port (SW-DP/SWJ-DP)

Cortex-M4F
 200 MHz
 Application Processor (CM4-C0)

DSP MPU FPU

DMA

Integrity Check Monitor

Classical Public Key Crypto-Controller

AES-128 Bridge w/Private Key Bus

I D S

16 KB ICache / ITCM 8 KB DCache / DTCM

Multi-Layer Bus MATRICES with Protection Unit

SRAM (up to 512 KB)

Dual-Plane Flash (up to 2 MB)
 ECC

Boot ROM
 Secure Boot, Crypto-Lib

Quad IO SPI with XiP

Private Key Bus

Peripheral Buses

32-bit Timer Counter USART/SPI/I2C (FLEXCOM) AES 128/256 SHA 256/512 (+HMAC) TRNG Multi-Channel SPI 24-bit PWM UART+ACC
AC Control for ANS-C12.18 IEC62058-21

Analog Comparator 12-bit ADC IPsec Link Segmented LCD Controller / SLCD Voltage Drivers Analog Comparator

System Controller

Parallel I/O Controller

Independent Watchdog Timer Watchdog Timer

Power Management Controller

Clock Generator

PLLA, PLLB, PLLC

MAIN RC OSC MAIN XTAL OSC

SLOW RC OSC 32768 Hz XTAL OSC

768-bit Backup Registers Real-Time Clock

Power Switch Real-Time Timer

Anti-Tampering

Backup Domain

Reset Controller

Core Voltage Regulator LCD Voltage Regulator

Power Supplies Controller and Monitoring