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"[Embedded - Microcontrollers](#)" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

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Details

Product Status	Active
Core Processor	MIPS32® M4K™
Core Size	32-Bit Single-Core
Speed	80MHz
Connectivity	Ethernet, I²C, SPI, UART/USART, USB OTG
Peripherals	Brown-out Detect/Reset, DMA, POR, PWM, WDT
Number of I/O	83
Program Memory Size	64KB (64K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	32K x 8
Voltage - Supply (Vcc/Vdd)	2.3V ~ 3.6V
Data Converters	A/D 16x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 105°C (TA)
Mounting Type	Surface Mount
Package / Case	100-TQFP
Supplier Device Package	100-TQFP (12x12)
Purchase URL	https://www.e-xfl.com/product-detail/microchip-technology/pic32mx664f064lt-v-pt

PIC32MX5XX/6XX/7XX

TABLE 10: PIN NAMES FOR USB AND CAN DEVICES

121-PIN TFBGA (BOTTOM VIEW)		L11	
PIC32MX534F064L	L1	A11	
PIC32MX564F064L			
PIC32MX564F128L			
PIC32MX575F256L			
PIC32MX575F512L			
Note: The TFBGA package skips from row "H" to row "J" and has no "I" row.			
Pin #	Full Pin Name	Pin #	Full Pin Name
A1	PMD4/RE4	E2	T4CK/RC3
A2	PMD3/RE3	E3	SCK2/U6TXU6TX/U3RTS/PMA5/CN8/RG6
A3	TRD0/RG13	E4	T3CK/RC2
A4	PMD0/RE0	E5	VDD
A5	PMD8/RG0	E6	PMD9/RG1
A6	C1TX/PMD10/RF1	E7	Vss
A7	VDD	E8	SDA1/INT4/RA15
A8	Vss	E9	RTCC/IC1/RD8
A9	IC5/PMD12/RD12	E10	SS1/IC2/RD9
A10	OC3/RD2	E11	SCL1/INT3/RA14
A11	OC2/RD1	F1	MCLR
B1	No Connect (NC)	F2	SCL4/SDO2/U3TX/PMA3/CN10/RG8
B2	RG15	F3	SS2/U6RX/U3CTS/PMA2/CN11/RG9
B3	PMD2/RE2	F4	SDA4/SDI2/U3RX/PMA4/CN9/RG7
B4	PMD1/RE1	F5	Vss
B5	TRD3/RA7	F6	No Connect (NC)
B6	C1RX/PMD11/RF0	F7	No Connect (NC)
B7	VCAP	F8	VDD
B8	PMRD/CN14/RD5	F9	OSC1/CLK1/RC12
B9	OC4/RD3	F10	Vss
B10	Vss	F11	OSC2/CLK0/RC15
B11	SOSCO/T1CK/CN0/RC14	G1	INT1/RE8
C1	PMD6/RE6	G2	INT2/RE9
C2	VDD	G3	TMS/RA0
C3	TRD1/RG12	G4	No Connect (NC)
C4	TRD2/RG14	G5	VDD
C5	TRCLK/RA6	G6	Vss
C6	No Connect (NC)	G7	Vss
C7	PMD15/CN16/RD7	G8	No Connect (NC)
C8	OC5/PMWR/CN13/RD4	G9	TDO/RA5
C9	VDD	G10	SDA2/RA3
C10	SOSCI/CN1/RC13	G11	TDI/RA4
C11	IC4/PMCS1/PMA14/RD11	H1	AN5/C1IN+/VBUSON/CN7/RB5
D1	T2CK/RC1	H2	AN4/C1IN-/CN6/RB4
D2	PMD7/RE7	H3	Vss
D3	PMD5/RE5	H4	VDD
D4	Vss	H5	No Connect (NC)
D5	Vss	H6	VDD
D6	No Connect (NC)	H7	No Connect (NC)
D7	PMD14/CN15/RD6	H8	VBUS
D8	PMD13/CN19/RD13	H9	VUSB3V3
D9	SDO1/OC1/INT0/RD0	H10	D+/RG2
D10	No Connect (NC)	H11	SCL2/RA2
D11	SCK1/IC3/PMCS2/PMA15/RD10	J1	AN3/C2IN+/CN5/RB3
E1	T5CK/SDI1/RC4	J2	AN2/C2IN-/CN4/RB2

Note 1: Shaded pins are 5V tolerant.

PIC32MX5XX/6XX/7XX

Referenced Sources

This device data sheet is based on the following individual chapters of the “*PIC32 Family Reference Manual*”. These documents should be considered as the general reference for the operation of a particular module or device feature.

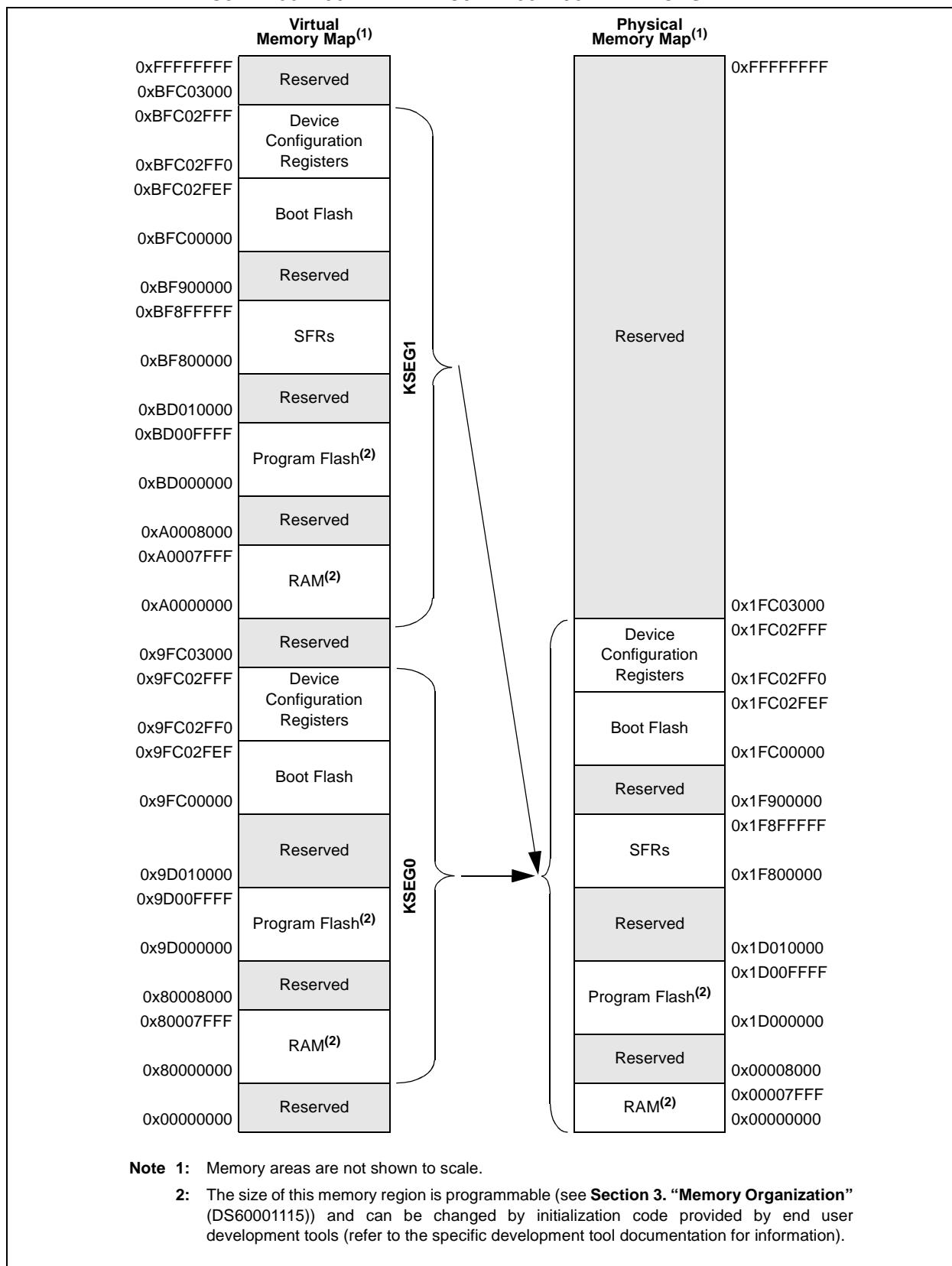
Note 1: To access the documents listed below, browse to the documentation section of the PIC32MX795F512L product page on the Microchip web site (www.microchip.com) or select a family reference manual section from the following list.

In addition to parameters, features, and other documentation, the resulting page provides links to the related family reference manual sections.

- **Section 1. “Introduction”** (DS60001127)
- **Section 2. “CPU”** (DS60001113)
- **Section 4. “Prefetch Cache”** (DS60001119)
- **Section 3. “Memory Organization”** (DS60001115)
- **Section 5. “Flash Program Memory”** (DS60001121)
- **Section 6. “Oscillator Configuration”** (DS60001112)
- **Section 7. “Resets”** (DS60001118)
- **Section 8. “Interrupt Controller”** (DS60001108)
- **Section 9. “Watchdog Timer and Power-up Timer”** (DS60001114)
- **Section 10. “Power-Saving Features”** (DS60001130)
- **Section 12. “I/O Ports”** (DS60001120)
- **Section 13. “Parallel Master Port (PMP)”** (DS60001128)
- **Section 14. “Timers”** (DS60001105)
- **Section 15. “Input Capture”** (DS60001122)
- **Section 16. “Output Capture”** (DS60001111)
- **Section 17. “10-bit Analog-to-Digital Converter (ADC)”** (DS60001104)
- **Section 19. “Comparator”** (DS60001110)
- **Section 20. “Comparator Voltage Reference (CVREF)”** (DS60001109)
- **Section 21. “Universal Asynchronous Receiver Transmitter (UART)”** (DS60001107)
- **Section 23. “Serial Peripheral Interface (SPI)”** (DS60001106)
- **Section 24. “Inter-Integrated Circuit (I2C)”** (DS60001116)
- **Section 27. “USB On-The-Go (OTG)”** (DS60001126)
- **Section 29. “Real-Time Clock and Calendar (RTCC)”** (DS60001125)
- **Section 31. “Direct Memory Access (DMA) Controller”** (DS60001117)
- **Section 32. “Configuration”** (DS60001124)
- **Section 33. “Programming and Diagnostics”** (DS60001129)
- **Section 34. “Controller Area Network (CAN)”** (DS60001154)
- **Section 35. “Ethernet Controller”** (DS60001155)

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**FIGURE 4-1: MEMORY MAP ON RESET FOR PIC32MX564F064H, PIC32MX564F064L,
PIC32MX664F064H AND PIC32MX664F064L DEVICES**



PIC32MX5XX/6XX/7XX

REGISTER 4-1: BMXCON: BUS MATRIX CONFIGURATION REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
23:16	U-0	U-0	U-0	R/W-1	R/W-1	R/W-1	R/W-1	R/W-1
	—	—	—	BMXERRIXI	BMXERRICD	BMXERRDMA	BMXERRDS	BMXERRIS
15:8	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
7:0	U-0	R/W-1	U-0	U-0	U-0	R/W-0	R/W-0	R/W-1
	—	BMXWSDRM	—	—	—	BMXARB<2:0>		

Legend:

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

bit 31-21 **Unimplemented:** Read as '0'

bit 20 **BMXERRIXI:** Enable Bus Error from IXI bit

1 = Enable bus error exceptions for unmapped address accesses initiated from IXI shared bus
0 = Disable bus error exceptions for unmapped address accesses initiated from IXI shared bus

bit 19 **BMXERRICD:** Enable Bus Error from ICD Debug Unit bit

1 = Enable bus error exceptions for unmapped address accesses initiated from ICD
0 = Disable bus error exceptions for unmapped address accesses initiated from ICD

bit 18 **BMXERRDMA:** Bus Error from DMA bit

1 = Enable bus error exceptions for unmapped address accesses initiated from DMA
0 = Disable bus error exceptions for unmapped address accesses initiated from DMA

bit 17 **BMXERRDS:** Bus Error from CPU Data Access bit (disabled in Debug mode)

1 = Enable bus error exceptions for unmapped address accesses initiated from CPU data access
0 = Disable bus error exceptions for unmapped address accesses initiated from CPU data access

bit 16 **BMXERRIS:** Bus Error from CPU Instruction Access bit (disabled in Debug mode)

1 = Enable bus error exceptions for unmapped address accesses initiated from CPU instruction access
0 = Disable bus error exceptions for unmapped address accesses initiated from CPU instruction access

bit 15-7 **Unimplemented:** Read as '0'

bit 6 **BMXWSDRM:** CPU Instruction or Data Access from Data RAM Wait State bit

1 = Data RAM accesses from CPU have one wait state for address setup
0 = Data RAM accesses from CPU have zero wait states for address setup

bit 5-3 **Unimplemented:** Read as '0'

bit 2-0 **BMXARB<2:0>:** Bus Matrix Arbitration Mode bits

111 = Reserved (using these Configuration modes will produce undefined behavior)

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011 = Reserved (using these Configuration modes will produce undefined behavior)

010 = Arbitration Mode 2

001 = Arbitration Mode 1 (default)

000 = Arbitration Mode 0

PIC32MX5XX/6XX/7XX

REGISTER 6-2: RSWRST: SOFTWARE RESET REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
23:16	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
15:8	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
7:0	U-0	U-0	U-0	U-0	U-0	U-0	U-0	W-0, HC
	—	—	—	—	—	—	—	SWRST ⁽¹⁾

Legend:

HC = Cleared by hardware

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

x = Bit is unknown

bit 31-1 **Unimplemented:** Read as '0'

bit 0 **SWRST:** Software Reset Trigger bit⁽¹⁾

1 = Enable software Reset event

0 = No effect

Note 1: The system unlock sequence must be performed before the SWRST bit can be written. Refer to **Section 6. “Oscillator”** (DS60001112) in the “PIC32 Family Reference Manual” for details.

TABLE 7-4: INTERRUPT REGISTER MAP FOR PIC32MX764F128H, PIC32MX775F256H, PIC32MX775F512H AND PIC32MX795F512H DEVICES (CONTINUED)

Virtual Address (BF88_#)	Register Name ⁽¹⁾	Bit Range	Bits																All Resets	
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0		
10D0	IPC4	31:16	—	—	—	INT4IP<2:0>			INT4IS<1:0>		—	—	—	OC4IP<2:0>		OC4IS<1:0>		0000		
		15:0	—	—	—	IC4IP<2:0>			IC4IS<1:0>		—	—	—	T4IP<2:0>		T4IS<1:0>		0000		
10E0	IPC5	31:16	—	—	—	—	—	—	—	—	—	—	—	OC5IP<2:0>		OC5IS<1:0>		0000		
		15:0	—	—	—	IC5IP<2:0>			IC5IS<1:0>		—	—	—	T5IP<2:0>		T5IS<1:0>		0000		
10F0	IPC6	31:16	—	—	—	AD1IP<2:0>			AD1IS<1:0>		—	—	—	CNIP<2:0>		CNIS<1:0>		0000		
		15:0	—	—	—	I2C1IP<2:0>			I2C1IS<1:0>		—	—	—	U1IP<2:0>		U1IS<1:0>		0000		
		31:16	—	—	—						SPI3IP<2:0>		SPI3IS<1:0>							
		15:0	—	—	—						I2C3IP<2:0>		I2C3IS<1:0>							
1100	IPC7	31:16	—	—	—	U3IP<2:0>			U3IS<1:0>		—	—	—	CMP2IP<2:0>		CMP2IS<1:0>		0000		
		15:0	—	—	—	SPI2IP<2:0>			SPI2IS<1:0>		—	—	—					0000		
		31:16	—	—	—	I2C4IP<2:0>			I2C4IS<1:0>		CMP1IP<2:0>			CMP1IS<1:0>		PMPIP<2:0>		PMPIS<1:0>		0000
		15:0	—	—	—	RTCCIP<2:0>			RTCCIS<1:0>		—	—	—	FSCMIP<2:0>		FSCMIS<1:0>		0000		
1110	IPC8	31:16	—	—	—	U2IP<2:0>			U2IS<1:0>		—	—	—	U2IP<2:0>		U2IS<1:0>		0000		
		15:0	—	—	—	—	—	—	—	—	—	—	—	SPI4IP<2:0>		SPI4IS<1:0>				
1120	IPC9	31:16	—	—	—	I2C5IP<2:0>			I2C5IS<1:0>		—	—	—	DMA2IP<2:0>		DMA2IS<1:0>		0000		
		15:0	—	—	—	DMA1IP<2:0>			DMA1IS<1:0>		—	—	—	DMA0IP<2:0>		DMA0IS<1:0>		0000		
		31:16	—	—	—	DMA7IP<2:0> ⁽²⁾			DMA7IS<1:0> ⁽²⁾		—	—	—	DMA6IP<2:0> ⁽²⁾		DMA6IS<1:0> ⁽²⁾		0000		
		15:0	—	—	—	DMA5IP<2:0> ⁽²⁾			DMA5IS<1:0> ⁽²⁾		—	—	—	DMA4IP<2:0> ⁽²⁾		DMA4IS<1:0> ⁽²⁾		0000		
1130	IPC10	31:16	—	—	—	CAN2IP<2:0> ⁽²⁾			CAN2IS<1:0> ⁽²⁾		—	—	—	CAN1IP<2:0>		CAN1IS<1:0>		0000		
		15:0	—	—	—	USBIP<2:0>			USBIS<1:0>		—	—	—	FCEIP<2:0>		FCEIS<1:0>		0000		
1140	IPC11	31:16	—	—	—	U5IP<2:0>			U5IS<1:0>		—	—	—	U6IP<2:0>		U6IS<1:0>		0000		
		15:0	—	—	—	U4IP<2:0>			U4IS<1:0>		—	—	—	ETHIP<2:0>		ETHIS<1:0>		0000		
1150	IPC12	31:16	—	—	—	U5IP<2:0>			U5IS<1:0>		—	—	—	U6IP<2:0>		U6IS<1:0>		0000		
		15:0	—	—	—	U4IP<2:0>			U4IS<1:0>		—	—	—	ETHIP<2:0>		ETHIS<1:0>		0000		

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: Except where noted, all registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See **Section 12.1.1 “CLR, SET and INV Registers”** for more information.

2: This bit is unimplemented on PIC32MX764F128H device.

3: This register does not have associated CLR, SET, and INV registers.

TABLE 7-5: INTERRUPT REGISTER MAP FOR PIC32MX534F064L, PIC32MX564F064L, PIC32MX564F128L PIC32MX575F512L AND PIC32MX575F256L DEVICES (CONTINUED)

Virtual Address (BF88...#)	Register Name ⁽¹⁾	Bit Range	Bits															All Resets						
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0						
10D0	IPC4	31:16	—	—	—	INT4IP<2:0>			INT4IS<1:0>		—	—	—	OC4IP<2:0>		OC4IS<1:0>		0000						
		15:0	—	—	—	IC4IP<2:0>			IC4IS<1:0>		—	—	—	T4IP<2:0>		T4IS<1:0>		0000						
10E0	IPC5	31:16	—	—	—	SPI1IP<2:0>			SPI1IS<1:0>		—	—	—	OC5IP<2:0>		OC5IS<1:0>		0000						
		15:0	—	—	—	IC5IP<2:0>			IC5IS<1:0>		—	—	—	T5IP<2:0>		T5IS<1:0>		0000						
10F0	IPC6	31:16	—	—	—	AD1IP<2:0>			AD1IS<1:0>		—	—	—	CNIP<2:0>		CNIS<1:0>		0000						
		15:0	—	—	—	I2C1IP<2:0>			I2C1IS<1:0>		—	—	—	U1IP<2:0>		U1IS<1:0>		0000						
			I2C3IP<2:0>			I2C3IS<1:0>																		
			I2C4IP<2:0>			I2C4IS<1:0>								SPI3IP<2:0>		SPI3IS<1:0>								
1100	IPC7	31:16	—	—	—	U3IP<2:0>			U3IS<1:0>		—	—	—	CMP2IP<2:0>		CMP2IS<1:0>		0000						
		15:0	—	—	—	SPI2IP<2:0>			SPI2IS<1:0>					PMP1IP<2:0>		PMP1IS<1:0>								
			I2C1IP<2:0>			I2C1IS<1:0>								PMP2IP<2:0>		PMP2IS<1:0>								
1110	IPC8	31:16	—	—	—	RTCCIP<2:0>			RTCCIS<1:0>		—	—	—	FSCMIP<2:0>		FSCMIS<1:0>		0000						
		15:0	—	—	—	I2C2IP<2:0>			I2C2IS<1:0>					U2IP<2:0>		U2IS<1:0>		0000						
			I2C3IP<2:0>			I2C3IS<1:0>								SPI4IP<2:0>		SPI4IS<1:0>								
1120	IPC9	31:16	—	—	—	DMA3IP<2:0>			DMA3IS<1:0>		—	—	—	DMA2IP<2:0>		DMA2IS<1:0>		0000						
		15:0	—	—	—	DMA1IP<2:0>			DMA1IS<1:0>					DMA0IP<2:0>		DMA0IS<1:0>								
1130	IPC10	31:16	—	—	—	DMA7IP<2:0> ⁽²⁾			DMA7IS<1:0> ⁽²⁾		—	—	—	DMA6IP<2:0> ⁽²⁾		DMA6IS<1:0> ⁽²⁾		0000						
		15:0	—	—	—	DMA5IP<2:0> ⁽²⁾			DMA5IS<1:0> ⁽²⁾					DMA4IP<2:0> ⁽²⁾		DMA4IS<1:0> ⁽²⁾								
1140	IPC11	31:16	—	—	—	USBIP<2:0>			USBIS<1:0>		—	—	—	CAN1IP<2:0>		CAN1IS<1:0>		0000						
		15:0	—	—	—	U5IP<2:0>			U5IS<1:0>					FCEIP<2:0>		FCEIS<1:0>								
1150	IPC12	31:16	—	—	—	U4IP<2:0>			U4IS<1:0>		—	—	—	U6IP<2:0>		U6IS<1:0>		0000						
		15:0	—	—	—	U3IP<2:0>			U3IS<1:0>					U7IP<2:0>		U7IS<1:0>								

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: Except where noted, all registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See **Section 12.1.1 “CLR, SET and INV Registers”** for more information.

2: These bits are not available on PIC32MX534/564 devices.

3: This register does not have associated CLR, SET, and INV registers.

TABLE 7-6: INTERRUPT REGISTER MAP FOR PIC32MX664F064L, PIC32MX664F128L, PIC32MX675F256L, PIC32MX675F512L AND PIC32MX695F512L DEVICES

Virtual Address (BF88_#)	Register Name{}	Bit Range	Bits																All Resets								
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0									
1000	INTCON	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	SS0 0000									
		15:0	—	—	—	MVEC	—	TPC<2:0>		—	—	—	INT4EP	INT3EP	INT2EP	INT1EP	INT0EP	0000									
1010	INTSTAT ⁽³⁾	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000									
		15:0	—	—	—	—	—	SR IPL<2:0>		—	—	VEC<5:0>						0000									
1020	IPTMR	31:16	IPTMR<31:0>																0000								
		15:0	IPTMR<31:0>																0000								
1030	IFS0	31:16	I2C1MIF	I2C1SIF	I2C1BIF	U1TXIF	U1RXIF	U1EIF	SPI1TXIF	SPI1RXIF	SPI1EIF	OC5IF	IC5IF	T5IF	INT4IF	OC4IF	IC4IF	T4IF 0000									
		15:0	INT3IF	OC3IF	IC3IF	T3IF	INT2IF	OC2IF		IC2IF	T2IF	INT1IF	OC1IF	IC1IF	T1IF	INT0IF	CS1IF	CS0IF	CTIF 0000								
1040	IFS1	31:16	IC3EIF	IC2EIF	IC1EIF	ETHIF	—	—	USBIF	FCEIF	DMA7IF ⁽²⁾	DMA6IF ⁽²⁾	DMA5IF ⁽²⁾	DMA4IF ⁽²⁾	DMA3IF	DMA2IF	DMA1IF	DMA0IF	0000								
		15:0	RTCCIF	FSCMIF	I2C2MIF	I2C2SIF	I2C2BIF	U2TXIF	U2RXIF	U2EIF	U3TXIF	U3RXIF	U3EIF	CMP2IF	CMP1IF	PMPIF	AD1IF	CNIF	0000								
1050	IFS2	31:16	—	—	—	—		SPI4TXIF	SPI4RXIF	SPI4EIF	SPI2TXIF	SPI2RXIF	SPI2EIF		PMPIE	IC5EIF	IC4EIF	0000									
		15:0	—	—	—	—		I2C5MIF	I2C5SIF	I2C5BIF	I2C4MIF	I2C4SIF	I2C4BIF			IC5EIF	IC4EIF	0000									
1060	IEC0	31:16	I2C1MIE	I2C1SIE	I2C1BIE	U1TXIE	U1RXIE	U1EIF	SPI1TXIE	SPI1RXIE	SPI1EIE	OC5IE	IC5IE	T5IE	INT4IE	OC4IE	IC4IE	T4IE 0000									
		15:0	INT3IE	OC3IE	IC3IE	T3IE	INT2IE	OC2IE		IC2IE	T2IE	INT1IE	OC1IE	IC1IE	T1IE	INT0IE	CS1IE	CS0IE	CTIE 0000								
1070	IEC1	31:16	IC3EIE	IC2EIE	IC1EIE	ETHIE	—	—	USBIE	FCEIE	DMA7IE ⁽²⁾	DMA6IE ⁽²⁾	DMA5IE ⁽²⁾	DMA4IE ⁽²⁾	DMA3IE	DMA2IE	DMA1IE	DMA0IE	0000								
		15:0	RTCCIE	FSCMIE	I2C2MIE	I2C2SIE	I2C2BIE	U2TXIE	U2RXIE	U2EIF	U3TXIE	U3RXIE	U3EIF	CMP2IE	CMP1IE	PMPIE	AD1IE	CNIE	0000								
1080	IEC2	31:16	—	—	—	—		U2C5MIE	I2C5SIE	I2C5BIE	I2C4MIE	I2C4SIE	I2C4BIE		PMPEIE	IC5EIE	IC4EIE	0000									
		15:0	—	—	—	—		U5TXIE	U5RXIE	U5EIF	U6TXIE	U6RXIE	U6EIF			IC5EIE	IC4EIE	0000									
1090	IPC0	31:16	—	—	—	INT0IP<2:0>		INT0IS<1:0>		—	—	—	CS1IP<2:0>		CS1IS<1:0>		0000										
		15:0	—	—	—	CS0IP<2:0>		CS0IS<1:0>		—	—	—	CTIP<2:0>		CTIS<1:0>		0000										
10A0	IPC1	31:16	—	—	—	INT1IP<2:0>		INT1IS<1:0>		—	—	—	OC1IP<2:0>		OC1IS<1:0>		0000										
		15:0	—	—	—	IC1IP<2:0>		IC1IS<1:0>		—	—	—	T1IP<2:0>		T1IS<1:0>		0000										
10B0	IPC2	31:16	—	—	—	INT2IP<2:0>		INT2IS<1:0>		—	—	—	OC2IP<2:0>		OC2IS<1:0>		0000										
		15:0	—	—	—	IC2IP<2:0>		IC2IS<1:0>		—	—	—	T2IP<2:0>		T2IS<1:0>		0000										
10C0	IPC3	31:16	—	—	—	INT3IP<2:0>		INT3IS<1:0>		—	—	—	OC3IP<2:0>		OC3IS<1:0>		0000										
		15:0	—	—	—	IC3IP<2:0>		IC3IS<1:0>		—	—	—	T3IP<2:0>		T3IS<1:0>		0000										

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: Except where noted, all registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See **Section 12.1.1 “CLR, SET and INV Registers”** for more information.

2: These bits are not available on PIC32MX664 devices.

3: This register does not have associated CLR, SET, and INV registers.

REGISTER 9-10: CHEHIT: CACHE HIT STATISTICS REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEHIT<31:24>							
23:16	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEHIT<23:16>							
15:8	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEHIT<15:8>							
7:0	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEHIT<7:0>							

Legend:

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

x = Bit is unknown

bit 31-0 CHEHIT<31:0>: Cache Hit Count bits

Incremented each time the processor issues an instruction fetch or load that hits the prefetch cache from a cacheable region. Non-cacheable accesses do not modify this value.

REGISTER 9-11: CHEMIS: CACHE MISS STATISTICS REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEMIS<31:24>							
23:16	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEMIS<23:16>							
15:8	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEMIS<15:8>							
7:0	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x	R/W-x
	CHEMIS<7:0>							

Legend:

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

x = Bit is unknown

bit 31-0 CHEMIS<31:0>: Cache Miss Count bits

Incremented each time the processor issues an instruction fetch from a cacheable region that misses the prefetch cache. Non-cacheable accesses do not modify this value.

TABLE 10-3: DMA CHANNELS 0-7 REGISTER MAP (CONTINUED)

Virtual Address (BF38_#)	Register Name	Bit Range	Bits																All Resets
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0	
33B0	DCH4SSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHSSIZ<15:0>															0000	
33C0	DCH4DSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHDSIZ<15:0>															0000	
33D0	DCH4SPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHS PTR<15:0>															0000	
33E0	DCH4DPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHD PTR<15:0>															0000	
33F0	DCH4CSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHCSIZ<15:0>															0000	
3400	DCH4CPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHC PTR<15:0>															0000	
3410	DCH4DAT	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHPDAT<7:0>															0000	
3420	DCH5CON	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHBUSY	—	—	—	—	—	—	CHCHNS	CHEN	CHAED	CHCHN	CHAEN	—	CHEDET	CHPRI<1:0>	0000	
3430	DCH5ECON	31:16	—	—	—	—	—	—	—	CHAIRQ<7:0>								00FF	
		15:0	CHSIRQ<7:0>															FF00	
3440	DCH5INT	31:16	—	—	—	—	—	—	—	CHSDIE	CHSHIE	CHDDIE	CHDHIE	CHBCIE	CHCCIE	CHTAIE	CHERIE	0000	
		15:0	—	—	—	—	—	—	—	CHSDIF	CHSHIF	CHDDIF	CHDHIF	CHBCIF	CHCCIF	CHTAIF	CHERIF	0000	
3450	DCH5SSA	31:16	CHSSA<31:0>															0000	
		15:0	CHSSA<31:0>															0000	
3460	DCH5DSA	31:16	CHDSA<31:0>															0000	
		15:0	CHDSA<31:0>															0000	
3470	DCH5SSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHSSIZ<15:0>															0000	
3480	DCH5DSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHDSIZ<15:0>															0000	
3490	DCH5SPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHS PTR<15:0>															0000	
34A0	DCH5DPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHD PTR<15:0>															0000	
34B0	DCH5CSIZ	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHCSIZ<15:0>															0000	
34C0	DCH5CPTR	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	CHC PTR<15:0>															0000	

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: All registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See Section 12.1.1 "CLR, SET and INV Registers" for more information.

2: DMA channels 4-7 are not available on PIC32MX534/564/664/764 devices.

PIC32MX5XX/6XX/7XX

REGISTER 11-20: U1CNFG1: USB CONFIGURATION 1 REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
23:16	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
15:8	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
7:0	R/W-0	R/W-0	U-0	R/W-0	U-0	U-0	U-0	R/W-0
	UTEYE	UOEMON	—	USBSIDL	—	—	—	UASUSPND

Legend:

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

x = Bit is unknown

bit 31-8 **Unimplemented:** Read as '0'

bit 7 **UTEYE:** USB Eye-Pattern Test Enable bit

- 1 = Eye-Pattern Test is enabled
- 0 = Eye-Pattern Test is disabled

bit 6 **UOEMON:** USB \overline{OE} Monitor Enable bit

- 1 = \overline{OE} signal is active; it indicates intervals during which the D+/D- lines are driving
- 0 = \overline{OE} signal is inactive

bit 5 **Unimplemented:** Read as '0'

bit 4 **USBSIDL:** Stop in Idle Mode bit

- 1 = Discontinue module operation when device enters Idle mode
- 0 = Continue module operation in Idle mode

bit 3-1 **Unimplemented:** Read as '0'

bit 0 **UASUSPND:** Automatic Suspend Enable bit

- 1 = USB module automatically suspends upon entry to Sleep mode. See the USUSPEND bit (U1PWRC<1>) in Register 11-5.
- 0 = USB module does not automatically suspend upon entry to Sleep mode. Software must use the USUSPEND bit (U1PWRC<1>) to suspend the module, including the USB 48 MHz clock.

TABLE 12-13: CHANGE NOTICE AND PULL-UP REGISTER MAP FOR PIC32MX534F064L, PIC32MX564F064L, PIC32MX564F128L, PIC32MX575F256L, PIC32MX575F512L, PIC32MX664F064L, PIC32MX664F128L, PIC32MX675F256L, PIC32MX675F512L, PIC32MX695F512L, PIC32MX764F128L, PIC32MX775F256L, PIC32MX775F512 AND PIC32MX795F512L DEVICES

Virtual Address (BF88_#)	Register Name() ¹	Bit Range	Bits																All Resets
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0	
61C0	CNCON	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	ON	—	SIDL	—	—	—	—	—	—	—	—	—	—	—	—	0000	
61D0	CNEN	31:16	—	—	—	—	—	—	—	—	—	—	CNEN21	CNEN20	CNEN19	CNEN18	CNEN17	CNEN16	0000
		15:0	CNEN15	CNEN14	CNEN13	CNEN12	CNEN11	CNEN10	CNEN9	CNEN8	CNEN7	CNEN6	CNEN5	CNEN4	CNEN3	CNEN2	CNEN1	CNEN0	0000
61E0	CNPUE	31:16	—	—	—	—	—	—	—	—	—	—	CNPUE21	CNPUE20	CNPUE19	CNPUE18	CNPUE17	CNPUE16	0000
		15:0	CNPUE15	CNPUE14	CNPUE13	CNPUE12	CNPUE11	CNPUE10	CNPUE9	CNPUE8	CNPUE7	CNPUE6	CNPUE5	CNPUE4	CNPUE3	CNPUE2	CNPUE1	CNPUE0	0000

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: All registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See [Section 12.1.1 “CLR, SET and INV Registers”](#) for more information.

TABLE 12-14: CHANGE NOTICE AND PULL-UP REGISTER MAP FOR PIC32MX575F256H, PIC32MX575F512H, PIC32MX675F256H, PIC32MX675F512H, PIC32MX695F512H, PIC32MX775F256H, PIC32MX775F512H AND PIC32MX795F512H DEVICES

Virtual Address (BF88_#)	Register Name() ¹	Bit Range	Bits																All Resets
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0	
61C0	CNCON	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000	
		15:0	ON	—	SIDL	—	—	—	—	—	—	—	—	—	—	—	—	0000	
61D0	CNEN	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	CNEN18	CNEN17	CNEN16	0000
		15:0	CNEN15	CNEN14	CNEN13	CNEN12	CNEN11	CNEN10	CNEN9	CNEN8	CNEN7	CNEN6	CNEN5	CNEN4	CNEN3	CNEN2	CNEN1	CNEN0	0000
61E0	CNPUE	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	CNPUE18	CNPUE17	CNPUE16	0000
		15:0	CNPUE15	CNPUE14	CNPUE13	CNPUE12	CNPUE11	CNPUE10	CNPUE9	CNPUE8	CNPUE7	CNPUE6	CNPUE5	CNPUE4	CNPUE3	CNPUE2	CNPUE1	CNPUE0	0000

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: All registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See [Section 12.1.1 “CLR, SET and INV Registers”](#) for more information.

REGISTER 14-1: TXCON: TYPE B TIMER CONTROL REGISTER (CONTINUED)

bit 3 **T32:** 32-Bit Timer Mode Select bit⁽²⁾

1 = Odd numbered and even numbered timers form a 32-bit timer

0 = Odd numbered and even numbered timers form a separate 16-bit timer

bit 2 **Unimplemented:** Read as '0'

bit 1 **TCS:** Timer Clock Source Select bit⁽³⁾

1 = External clock from TxCK pin

0 = Internal peripheral clock

bit 0 **Unimplemented:** Read as '0'

Note 1: When using the 1:1 PBCLK divisor, the user's software should not read/write the peripheral SFRs in the SYSCLK cycle immediately following the instruction that clears the module's ON bit.

2: This bit is only available on even numbered timers (Timer2 and Timer4).

3: While operating in 32-bit mode, this bit has no effect for odd numbered timers (Timer1, Timer3, and Timer5). All timer functions are set through the even numbered timers.

4: While operating in 32-bit mode, this bit must be cleared on odd numbered timers to enable the 32-bit timer in Idle mode.

REGISTER 19-1: I2CxCON: I²C CONTROL REGISTER

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
23:16	U-0	U-0	U-0	U-0	U-0	U-0	U-0	U-0
	—	—	—	—	—	—	—	—
15:8	R/W-0	U-0	R/W-0	R/W-1, HC	R/W-0	R/W-0	R/W-0	R/W-0
	ON ⁽¹⁾	—	SIDL	SCLREL	STRICT	A10M	DISSLW	SMEN
7:0	R/W-0	R/W-0	R/W-0	R/W-0, HC	R/W-0, HC	R/W-0, HC	R/W-0, HC	R/W-0, HC
	GCEN	STREN	ACKDT	ACKEN	RCEN	PEN	RSEN	SEN

Legend:

HC = Cleared by hardware

R = Readable bit

W = Writable bit

U = Unimplemented bit, read as '0'

-n = Value at POR

'1' = Bit is set

'0' = Bit is cleared

x = Bit is unknown

bit 31-16 **Unimplemented:** Read as '0'

bit 15 **ON:** I²C Enable bit⁽¹⁾

1 = Enables the I²C module and configures the SDA and SCL pins as serial port pins
0 = Disables the I²C module; all I²C pins are controlled by PORT functions

bit 14 **Unimplemented:** Read as '0'

bit 13 **SIDL:** Stop in Idle Mode bit

1 = Discontinue module operation when device enters Idle mode
0 = Continue module operation when device enters Idle mode

bit 12 **SCLREL:** SCLx Release Control bit (when operating as I²C slave)

1 = Release SCLx clock
0 = Hold SCLx clock low (clock stretch)

If STREN = 1:

Bit is R/W (software can write '0' to initiate stretch and write '1' to release clock). Cleared by hardware at the beginning of a slave transmission and at the end of slave reception.

If STREN = 0:

Bit is R/S (software can only write '1' to release clock). Cleared by hardware at the beginning of slave transmission.

bit 11 **STRICT:** Strict I²C Reserved Address Rule Enable bit

1 = Strict reserved addressing is enforced. Device does not respond to reserved address space or generate addresses in reserved address space.
0 = Strict I²C reserved address rule is not enabled

bit 10 **A10M:** 10-bit Slave Address bit

1 = I2CxADD is a 10-bit slave address
0 = I2CxADD is a 7-bit slave address

bit 9 **DISSLW:** Disable Slew Rate Control bit

1 = Slew rate control is disabled
0 = Slew rate control is enabled

bit 8 **SMEN:** SMBus Input Levels bit

1 = Enable I/O pin thresholds compliant with SMBus specification
0 = Disable SMBus input thresholds

Note 1: When using the 1:1 PBCLK divisor, the user's software should not read/write the peripheral's SFRs in the SYSCLK cycle immediately following the instruction that clears the module's ON bit.

24.1 Control Registers

TABLE 24-1: CAN1 REGISTER SUMMARY FOR PIC32MX534F064H, PIC32MX564F064H, PIC32MX564F128H, PIC32MX575F256H, PIC32MX575F512H, PIC32MX764F128H, PIC32MX775F256H, PIC32MX775F512H, PIC32MX795F512H, PIC32MX534F064L, PIC32MX564F064L, PIC32MX564F128L, PIC32MX575F256L, PIC32MX575F512L, PIC32MX764F128L, PIC32MX775F256L, PIC32MX775F512L AND PIC32MX795F512L DEVICES

Virtual Address (BF88_#)	Register Name	Bit Range	Bits															All Resets	
			31/15	30/14	29/13	28/12	27/11	26/10	25/9	24/8	23/7	22/6	21/5	20/4	19/3	18/2	17/1	16/0	
B000	C1CON	31:16	—	—	—	—	ABAT	REQOP<2:0>			OPMOD<2:0>			CANCAP	—	—	—	—	0480
		15:0	ON	—	SIDLE	—	CANBUSY	—	—	—	—	—	—	DNCNT<4:0>				0000	
B010	C1CFG	31:16	—	—	—	—	—	—	—	—	—	WAKFIL	—	—	—	SEG2PH<2:0>		0000	
		15:0	SEG2PHTS	SAM	SEG1PH<2:0>			PRSEG<2:0>			SJW<1:0>			BRP<5:0>				0000	
B020	C1INT	31:16	IVRIE	WAKIE	CERRIE	SERRIE	RBOVIE	—	—	—	—	—	—	MODIE	CTMRIE	RBIE	TBIE	0000	
		15:0	IVRIF	WAKIF	CERRIF	SERRIF	RBOVIF	—	—	—	—	—	—	MODIF	CTMRIF	RBIF	TBIF	0000	
B030	C1VEC	31:16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0000
		15:0	—	—	—	FILHIT<4:0>					—	ICODE<6:0>					0040		
B040	C1TREC	31:16	—	—	—	—	—	—	—	—	—	TXBO	TXBP	RXBP	TXWARN	RXWARN	EWARN	0000	
		15:0	TERRCNT<7:0>								RERRCNT<7:0>								0000
B050	C1FSTAT	31:16	FIFOIP31	FIFOIP30	FIFOIP29	FIFOIP28	FIFOIP27	FIFOIP26	FIFOIP25	FIFOIP24	FIFOIP23	FIFOIP22	FIFOIP21	FIFOIP20	FIFOIP19	FIFOIP18	FIFOIP17	FIFOIP16	0000
		15:0	FIFOIP15	FIFOIP14	FIFOIP13	FIFOIP12	FIFOIP11	FIFOIP10	FIFOIP9	FIFOIP8	FIFOIP7	FIFOIP6	FIFOIP5	FIFOIP4	FIFOIP3	FIFOIP2	FIFOIP1	FIFOIP0	0000
B060	C1RXOVF	31:16	RXOVF31	RXOVF30	RXOVF29	RXOVF28	RXOVF27	RXOVF26	RXOVF25	RXOVF24	RXOVF23	RXOVF22	RXOVF21	RXOVF20	RXOVF19	RXOVF18	RXOVF17	RXOVF16	0000
		15:0	RXOVF15	RXOVF14	RXOVF13	RXOVF12	RXOVF11	RXOVF10	RXOVF9	RXOVF8	RXOVF7	RXOVF6	RXOVF5	RXOVF4	RXOVF3	RXOVF2	RXOVF1	RXOVF0	0000
B070	C1TMR	31:16	CANTS<15:0>															0000	
		15:0	CANTSPE<15:0>															0000	
B080	C1RXM0	31:16	SID<10:0>												—	MIDE	—	EID<17:16>	xxxx
		15:0	EID<15:0>												—	EID<17:16>	xxxx		
B090	C1RXM1	31:16	SID<10:0>												—	MIDE	—	EID<17:16>	xxxx
		15:0	EID<15:0>												—	EID<17:16>	xxxx		
B0A0	C1RXM2	31:16	SID<10:0>												—	MIDE	—	EID<17:16>	xxxx
		15:0	EID<15:0>												—	EID<17:16>	xxxx		
B0B0	C1RXM3	31:16	SID<10:0>												—	MIDE	—	EID<17:16>	xxxx
		15:0	EID<15:0>												—	EID<17:16>	xxxx		
B0C0	C1FLTCON0	31:16	FLTEN3	MSEL3<1:0>		FSEL3<4:0>				FLTEN2	MSEL2<1:0>		FSEL2<4:0>				0000		
		15:0	FLTEN1	MSEL1<1:0>		FSEL1<4:0>				FLTEN0	MSEL0<1:0>		FSEL0<4:0>				0000		
B0D0	C1FLTCON1	31:16	FLTEN7	MSEL7<1:0>		FSEL7<4:0>				FLTEN6	MSEL6<1:0>		FSEL6<4:0>				0000		
		15:0	FLTEN5	MSEL5<1:0>		FSEL5<4:0>				FLTEN4	MSEL4<1:0>		FSEL4<4:0>				0000		
B0E0	C1FLTCON2	31:16	FLTEN11	MSEL11<1:0>		FSEL11<4:0>				FLTEN10	MSEL10<1:0>		FSEL10<4:0>				0000		
		15:0	FLTEN9	MSEL9<1:0>		FSEL9<4:0>				FLTEN8	MSEL8<1:0>		FSEL8<4:0>				0000		

Legend: x = unknown value on Reset; — = unimplemented, read as '0'. Reset values are shown in hexadecimal.

Note 1: All registers in this table have corresponding CLR, SET and INV registers at their virtual addresses, plus offsets of 0x4, 0x8 and 0xC, respectively. See [Section 12.1.1 “CLR, SET and INV Registers”](#) for more information.

REGISTER 24-10: CiFLTCON0: CAN FILTER CONTROL REGISTER 0 (CONTINUED)

- bit 15 **FLTEN1:** Filter 1 Enable bit
1 = Filter is enabled
0 = Filter is disabled
- bit 14-13 **MSEL1<1:0>:** Filter 1 Mask Select bits
11 = Acceptance Mask 3 selected
10 = Acceptance Mask 2 selected
01 = Acceptance Mask 1 selected
00 = Acceptance Mask 0 selected
- bit 12-8 **FSEL1<4:0>:** FIFO Selection bits
11111 = Message matching filter is stored in FIFO buffer 31
11110 = Message matching filter is stored in FIFO buffer 30
•
•
•
00001 = Message matching filter is stored in FIFO buffer 1
00000 = Message matching filter is stored in FIFO buffer 0
- bit 7 **FLTENO:** Filter 0 Enable bit
1 = Filter is enabled
0 = Filter is disabled
- bit 6-5 **MSEL0<1:0>:** Filter 0 Mask Select bits
11 = Acceptance Mask 3 selected
10 = Acceptance Mask 2 selected
01 = Acceptance Mask 1 selected
00 = Acceptance Mask 0 selected
- bit 4-0 **FSEL0<4:0>:** FIFO Selection bits
11111 = Message matching filter is stored in FIFO buffer 31
11110 = Message matching filter is stored in FIFO buffer 30
•
•
•
00001 = Message matching filter is stored in FIFO buffer 1
00000 = Message matching filter is stored in FIFO buffer 0

Note: The bits in this register can only be modified if the corresponding filter enable (FLTENn) bit is '0'.

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REGISTER 24-14: CiFLTCON4: CAN FILTER CONTROL REGISTER 4

Bit Range	Bit 31/23/15/7	Bit 30/22/14/6	Bit 29/21/13/5	Bit 28/20/12/4	Bit 27/19/11/3	Bit 26/18/10/2	Bit 25/17/9/1	Bit 24/16/8/0
31:24	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0
	FLTEN19	MSEL19<1:0>			FSEL19<4:0>			
23:16	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0
	FLTEN18	MSEL18<1:0>			FSEL18<4:0>			
15:8	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0
	FLTEN17	MSEL17<1:0>			FSEL17<4:0>			
7:0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0
	FLTEN16	MSEL16<1:0>			FSEL16<4:0>			

Legend:

R = Readable bit	W = Writable bit	U = Unimplemented bit, read as '0'
-n = Value at POR	'1' = Bit is set	'0' = Bit is cleared
		x = Bit is unknown

bit 31 **FLTEN19:** Filter 19 Enable bit

1 = Filter is enabled
0 = Filter is disabled

bit 30-29 **MSEL19<1:0>:** Filter 19 Mask Select bits

11 = Acceptance Mask 3 selected
10 = Acceptance Mask 2 selected
01 = Acceptance Mask 1 selected
00 = Acceptance Mask 0 selected

bit 28-24 **FSEL19<4:0>:** FIFO Selection bits

11111 = Message matching filter is stored in FIFO buffer 31
11110 = Message matching filter is stored in FIFO buffer 30

•
•
•

00001 = Message matching filter is stored in FIFO buffer 1
00000 = Message matching filter is stored in FIFO buffer 0

bit 23 **FLTEN18:** Filter 18 Enable bit

1 = Filter is enabled
0 = Filter is disabled

bit 22-21 **MSEL18<1:0>:** Filter 18 Mask Select bits

11 = Acceptance Mask 3 selected
10 = Acceptance Mask 2 selected
01 = Acceptance Mask 1 selected
00 = Acceptance Mask 0 selected

bit 20-16 **FSEL18<4:0>:** FIFO Selection bits

11111 = Message matching filter is stored in FIFO buffer 31
11110 = Message matching filter is stored in FIFO buffer 30

•
•
•

00001 = Message matching filter is stored in FIFO buffer 1
00000 = Message matching filter is stored in FIFO buffer 0

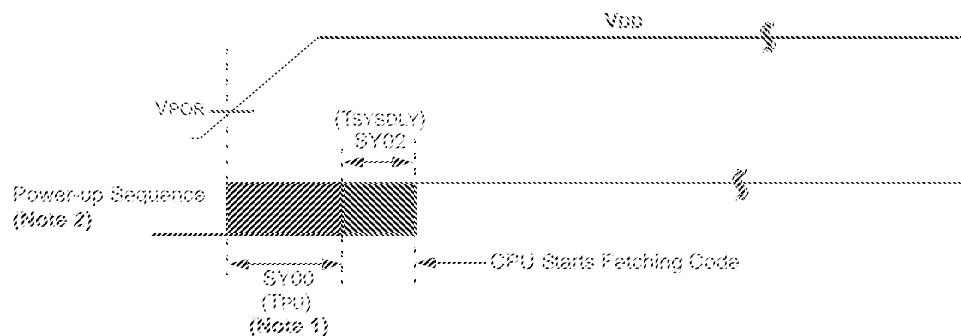
Note: The bits in this register can only be modified if the corresponding filter enable (FLTENn) bit is '0'.

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FIGURE 32-4: POWER-ON RESET TIMING CHARACTERISTICS

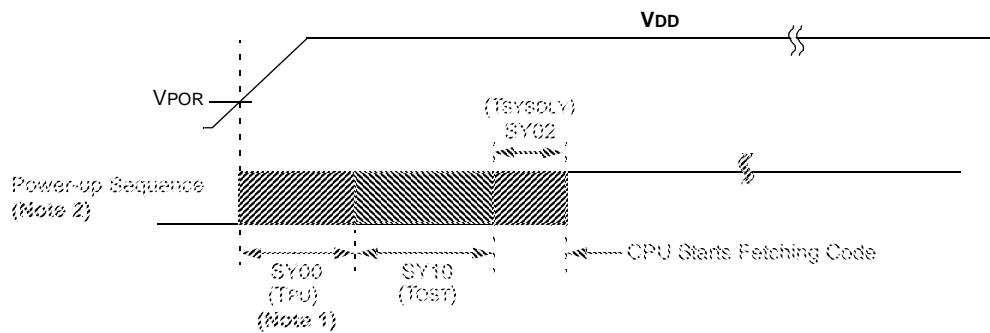
Internal Voltage Regulator Enabled

Clock Sources = (FRC, FRCDIV, FRCDIV16, FRCPLL, EC, ECPLL and LPRO)



Internal Voltage Regulator Enabled

Clock Sources = (HS, HSPLL, XT, XTPLL and Sosc)



Note 1: The power-up period will be extended if the power-up sequence completes before the device exits from BOR ($V_{DD} < V_{DDMIN}$).

2: Includes interval voltage regulator stabilization delay.

Revision J (September 2016)

This revision includes typographical and formatting updates throughout the data sheet text. In addition, all SFR Register maps were moved from the Memory chapter to their respective peripheral chapters.

All other major updates are referenced by their respective section in Table B-7.

TABLE B-7: MAJOR SECTION UPDATES

Section Name	Update Description
"32-bit Microcontrollers (up to 512 KB Flash and 128 KB SRAM) with Graphics Interface, USB, CAN, and Ethernet"	Updated Communication Interfaces for LIN support to 2.1. Updated Qualification and Class B Support to AEC-Q100 REVH.
2.0 "Guidelines for Getting Started with 32-bit MCUs"	The Recommended Minimum Connection diagram was updated (see Figure 2-1). The Example of MCLR Pin Connections diagram was updated (see Figure 2-2). 2.11 "EMI/EMC/EFT (IEC 61000-4-4 and IEC 61000-4-2) Suppression Considerations" was added.
4.0 "Memory Organization"	The SFR Memory Map was added (see Table 4-1).
7.0 "Interrupt Controller"	The UART interrupt sources were updated in the Interrupt IRQ, Vector, and Bit location table (see Table 7-1).
8.0 "Oscillator Configuration"	Updated the bit value definitions for the TUN<5:0> bits in the OCSTUN register (see Register 8-2).
15.0 "Watchdog Timer (WDT)"	The content in this chapter was relocated from the Special Features chapter to its own chapter.
18.0 "Serial Peripheral Interface (SPI)"	The register map tables were combined (see Table 18-1).
19.0 "Inter-Integrated Circuit (I²C)"	The register map tables were combined (see Table 19-1). The PMADDR register was updated (see Register 21-3).
21.0 "Parallel Master Port (PMP)"	The bit value definitions for the ADRMUX<1:0> and CSF<1:0> bits in the PMCON register were updated (see Register 21-1).
29.0 "Special Features"	Removed the duplicate bit value definition for '010' in the DEVCFG2 register (see Register 29-3). Note 1 was added to the Programming, Debugging, and Trace Ports block diagram (see Figure 29-2). The DDPCON register was relocated (see Register 29-6). The Device ID, Revision, and Configuration Summary was updated (see Table 29-2).

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