



Microcontroller Pocket Guide

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32-bit microcontroller

Product type/part number	Markets			Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory			
	Automotive	Industrial	Consumer				Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock	SWD, SPD			JTAG, Trace	Flash	ECC	RAM
XMC1100 series																									
XMC1100-T016F0008	-	●	●	0.56	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16
XMC1100-T016F0016	-	●	●	0.61	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1100-T016X0016	-	●	●	0.65	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1100-T016X0032	-	●	●	0.76	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1100-T016F0032	-	●	●	0.72	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1100-T016F0064	-	●	●	0.94	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1100-T016X0064	-	●	●	0.99	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1100-T038F0016	-	●	●	0.70	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1100-T038F0032	-	●	●	0.81	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1100-T038F0064	-	●	●	1.03	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1100-T038X0064	-	●	●	1.08	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1100-Q024F0008	-	●	●	0.61	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1100-Q024F0016	-	●	●	0.65	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1100-Q024F0032	-	●	●	0.76	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1100-Q024F0064	-	●	●	0.99	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1100-Q040F0016	-	●	●	0.72	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1100-Q040F0032	-	●	●	0.83	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1100-Q040F0064	-	●	●	1.06	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1200 series																									
XMC1200-T038F0200	-	●	●	1.91	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	200	-	16
XMC1201-T038F0016	-	●	●	0.79	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1201-T038F0032	-	●	●	0.89	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1201-T038F0064	-	●	●	1.12	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1201-T038F0128	-	●	●	1.46	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	128	-	16
XMC1201-T038F0200	-	●	●	1.91	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	200	-	16
XMC1201-Q040F0016	-	●	●	0.81	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog				Timer/PWM							Communication										LED display	Capacitive touch
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)								
																# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/I ² C	IIS/I ² S	LIN				
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/7	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/9	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/9	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/9	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/9	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/1/12	-	-	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	2x 64 segment	16 ch	

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	Automotive	Industrial	Consumer				Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock	SWD, SPD			JTAG, Trace	Flash	ECC	RAM
XMC1200 series																									
XMC1201-Q040F0032	-	●	●	0.92	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1201-Q040F0064	-	●	●	1.15	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1201-Q040F0128	-	●	●	1.48	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	128	-	16
XMC1201-Q040F0200	-	●	●	1.93	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	200	-	16
XMC1201-T028F0016	-	●	●	0.74	TSSOP-28	26	Cortex®-M1	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1202-T016X0016	-	●	●	0.74	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1202-T016X0032	-	●	●	0.85	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1202-T028X0016	-	●	●	0.79	TSSOP-28	26	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1202-T028X0032	-	●	●	0.90	TSSOP-28	26	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1202-T028X0064	-	●	●	1.13	TSSOP-28	26	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1202-Q024X0016	-	●	●	0.79	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1202-Q024X0032	-	●	●	0.90	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1202-Q040X0016	-	●	●	0.85	VQFN-40	26	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1202-Q040X0032	-	●	●	0.97	VQFN-40	26	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1202-T016X0064	-	●	●	1.09	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 106	64	-	16
XMC1300 series																									
XMC1301-T016F0008	-	●	●	0.61	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16
XMC1301-T016X0008	-	●	●	0.65	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16
XMC1301-T016F0016	-	●	●	0.65	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1301-T016X0016	-	●	●	0.70	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1301-T038F0008	-	●	●	0.70	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16
XMC1301-T038F0016	-	●	●	0.74	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1301-T038F0032	-	●	●	0.85	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1301-Q024F0008	-	●	●	0.65	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16
XMC1301-Q024F0016	-	●	●	0.70	VQFN-24	22	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1301-Q040F0008	-	●	●	0.72	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	8	-	16

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog			Timer/PWM							Communication										LED display	Capacitive touch		
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)								External Bus Unit (EBU)	
																	# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/I ² C	IIS/I ² S	LIN				
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	2x 64 segment	16 ch
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	2x 64 segment	16 ch
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	2x 64 segment	16 ch
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	2x 64 segment	16 ch
-	•	-	•	64	1/2/10	-	2x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	2x 64 segment	16 ch
-	•	-	•	64	1/2/7	-	2x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/10	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/10	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/10	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	-	-	-	-	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	-	-	-	-	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	•	-	-	-

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Product type/partnumber	Markets			Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory			
	Automotive	Industrial	Consumer				Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock	SWD, SPD			JTAG, Trace	Flash	ECC	RAM
XMC1300 series																									
XMC1301-Q040F0016	-	●	●	0.76	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1301-Q040F0032	-	●	●	0.88	VQFN-40	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1301-T016F0032	-	●	●	0.77	TSSOP-16	14	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1301-T038X0064	-	●	●	1.13	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1301-T038F0064	-	●	●	1.09	TSSOP-38	34	Cortex®-M0	32	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1302-T016X0008	-	●	●	0.70	TSSOP-16	14	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	8	-	16
XMC1302-T016X0016	-	●	●	0.74	TSSOP-16	14	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1302-T016X0032	-	●	●	0.85	TSSOP-16	14	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1302-T038X0016	-	●	●	0.83	TSSOP-38	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1302-T038X0032	-	●	●	0.94	TSSOP-38	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1302-T038X0064	-	●	●	1.17	TSSOP-38	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	8	-	16
XMC1302-T038X0128	-	●	●	1.51	TSSOP-38	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1302-T038X0200	-	●	●	1.96	TSSOP-38	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1302-Q024F0016	-	●	●	0.74	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	16	-	16
XMC1302-Q024F0032	-	●	●	0.85	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	32	-	16
XMC1302-Q024F0064	-	●	●	1.08	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1302-Q024X0016	-	●	●	0.79	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1302-Q024X0032	-	●	●	0.90	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1302-Q024X0064	-	●	●	1.12	VQFN-24	22	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1302-Q040X0016	-	●	●	0.85	VQFN-40	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	16	-	16
XMC1302-Q040X0032	-	●	●	0.97	VQFN-40	26	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1302-Q040X0064	-	●	●	1.19	VQFN-40	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1302-Q040X0128	-	●	●	1.53	VQFN-40	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1302-Q040X0200	-	●	●	1.99	VQFN-40	34	Cortex®-M0	32	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog			Timer/PWM						Communication										LED display	Capacitive touch		
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)							External Bus Unit (EBU)	
																	# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/IC	IIS/I ² S	LIN			
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	-	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	-	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	-	4 ch	-	-	1x	-	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/7	-	2x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/9	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-
-	•	-	•	64	1/2/12	-	3x	4 ch	4 ch	-	-	1x	9 ch	-	-	-	2 ch	•	•	•	•	•	•	•	-	-	-

32-bit microcontroller

Product type/part number	Markets		Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory				
	Automotive	Industrial				Consumer	Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock			SWD, SPD	JTAG, Trace	Flash	ECC	RAM
XMC1400 series																									
XMC1401-Q048F0064	-	●	●	1.27	VQFN-48	42	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	128	-	16
XMC1401-Q048F0128	-	●	●	1.63	VQFN-48	42	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	128	-	16
XMC1401-F064F0064	-	●	●	1.37	LQFP-64	55	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	64	-	16
XMC1401-F064F0128	-	●	●	1.72	LQFP-64	55	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 85	128	-	16
XMC1402-T038X0032	-	●	●	1.08	TSSOP-38	34	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1402-T038X0064	-	●	●	1.31	TSSOP-38	34	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1402-T038X0128	-	●	●	1.66	TSSOP-38	34	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1402-T038X0200	-	●	●	2.12	TSSOP-38	34	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1402-Q040X0032	-	●	●	1.08	VQFN-40	35	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1402-Q040X0064	-	●	●	1.31	VQFN-40	35	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1402-Q040X0128	-	●	●	1.67	VQFN-40	35	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1402-Q048X0032	-	●	●	1.12	VQFN-48	42	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	32	-	16
XMC1402-Q048X0064	-	●	●	1.36	VQFN-48	42	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1402-Q048X0128	-	●	●	1.72	VQFN-48	42	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1402-Q064X0064	-	●	●	1.46	VQFN-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1402-Q064X0128	-	●	●	1.82	VQFN-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1402-Q064X0200	-	●	●	2.29	VQFN-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1402-F064X0064	-	●	●	1.46	LQFP-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1402-F064X0128	-	●	●	1.82	LQFP-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1402-F064X0200	-	●	●	2.29	LQFP-64	55	Cortex®-M0	48	●	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1403-Q048X0064	-	●	●	1.39	VQFN-48	42	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1403-Q048X0128	-	●	●	1.74	VQFN-48	42	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1403-Q048X0200	-	●	●	2.22	VQFN-48	42	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1403-Q064X0064	-	●	●	1.48	VQFN-64	55	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1403-Q064X0128	-	●	●	1.84	VQFN-64	55	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1403-Q064X0200	-	●	●	2.32	VQFN-64	55	Cortex®-M0	48	-	-	-	1	-	-	-	●	●	●	●	-	1.8 to 5.5	-40 to 105	200	-	16

32-bit microcontroller

Product type/part number	Markets			Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory			
	Automotive	Industrial	Consumer				Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock	SWD, SPD			JTAG, Trace	Flash	ECC	RAM
XMC1400 series																									
XMC1404-Q048X0064	-	•	•	1.48	VQFN-48	42	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1404-Q048X0128	-	•	•	1.84	VQFN-48	42	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1404-Q048X0200	-	•	•	2.32	VQFN-48	42	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1404-Q064X0064	-	•	•	1.58	VQFN-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1404-Q064X0128	-	•	•	1.94	VQFN-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1404-Q064X0200	-	•	•	2.41	VQFN-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	200	-	16
XMC1404-F064X0064	-	•	•	1.58	LQFP-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	64	-	16
XMC1404-F064X0128	-	•	•	1.94	LQFP-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	128	-	16
XMC1404-F064X0200	-	•	•	2.41	LQFP-64	55	Cortex®-M0	48	•	-	-	1	-	-	-	•	•	•	•	-	1.8 to 5.5	-40 to 105	200	-	16
XMC4100 series																									
XMC4108-Q48K64	-	•	•	2.17	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	64	•	20
XMC4108-F64K64	-	•	•	2.52	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	64	•	20
XMC4104-Q48F64	-	•	•	2.70	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	64	•	20
XMC4104-Q48F128	-	•	•	2.80	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	128	•	20
XMC4104-Q48K64	-	•	•	2.97	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	64	•	20
XMC4104-Q48K128	-	•	•	3.09	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	128	•	20
XMC4104-F64F64	-	•	•	2.82	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	64	•	20
XMC4104-F64F128	-	•	•	2.92	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	128	•	20
XMC4104-F64K64	-	•	•	3.20	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	64	•	20
XMC4104-F64K128	-	•	•	3.31	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	128	•	20
XMC4100-Q48F128	-	•	•	3.01	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	128	•	20
XMC4100-Q48K128	-	•	•	3.21	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	128	•	20
XMC4100-F64F128	-	•	•	3.12	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 85	128	•	20
XMC4100-F64K128	-	•	•	3.54	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	3.13 to 3.63	-40 to 125	128	•	20

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog				Timer/PWM						Communication										LED display	Capacitive touch	
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)								External Bus Unit (EBU)
																		# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/IC	IIS/I ² S	LIN		

-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch
-	●	-	●	96	1/2/12	-	4x	8 ch	8 ch	-	-	2x	9 ch	-	-	2	-	-	4 ch	●	●	●	●	●	●	●	-	3x 64 segment	24 ch

1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	-	-	1x	-	-	-	1	-	-	4 ch	●	●	●	●	●	●	●	-	-	-
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	-	-	1x	-	-	-	1	-	-	4 ch	●	●	●	●	●	●	●	-	-	-
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	-	-	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch

32-bit microcontroller

Product type/part number	Markets		Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory					
	Automotive	Industrial				Consumer	Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock			SWD, SPD	JTAG, Trace	Flash	ECC	RAM	
XMC4200 series																										
XMC4200-Q48F256	-	•	•	3.12	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	40
XMC4200-Q48K256	-	•	•	3.33	VQFN-48	30	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	40
XMC4200-F64F256	-	•	•	3.22	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	40
XMC4200-F64K256	-	•	•	3.66	TQFP-64	45	Cortex®-M4	80	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	40
XMC4300 series																										
XMC4300-F100F256	-	•	-	7.97	LQFP-100	75	Cortex®-M4	144	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	128
XMC4300-F100K256	-	•	-	8.77	LQFP-100	75	Cortex®-M4	144	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	128
XMC4400 series																										
XMC4402-F64F256	-	•	•	4.23	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	80
XMC4402-F64K256	-	•	•	4.80	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	80
XMC4402-F100F256	-	•	•	4.53	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	80
XMC4402-F100K256	-	•	•	5.14	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	80
XMC4400-F64F256	-	•	•	4.43	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	80
XMC4400-F64F512	-	•	•	4.64	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	512	•	80
XMC4400-F64K256	-	•	•	5.03	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	80
XMC4400-F64K512	-	•	•	5.26	TQFP-64	41	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	512	•	80
XMC4400-F100F256	-	•	•	4.88	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	256	•	80
XMC4400-F100F512	-	•	•	4.94	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	512	•	80
XMC4400-F100K256	-	•	•	5.37	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	256	•	80
XMC4400-F100K512	-	•	•	5.43	LQFP-100	75	Cortex®-M4	120	-	•	•	2	8 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	512	•	80

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog			Timer/PWM							Communication										LED display	Capacitive touch				
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)								External Bus Unit (EBU)			
																		# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/°C	IIS/°S	LIN					
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/8	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
1	●	●	-	80	2/2/9	2 ch	-	8 ch	4 ch	●	-	1x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
8	●	●	-	144	2/2/14	2 ch	-	8 ch	4 ch	-	-	-	-	-	●	●	2	●	●	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
8	●	●	-	144	2/2/14	2 ch	-	8 ch	4 ch	-	-	-	-	-	●	●	2	●	●	4 ch	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/9	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/9	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	-	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/9	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/9	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/9	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	●	4 ch	2x	-	-	●	2	●	-	4 ch	●	●	●	●	●	●	●	●	-	1x 64 segment	8 ch

32-bit microcontroller

Product type/part number	Markets		Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory					
	Automotive	Industrial				Consumer	Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock			SWD, SPD	JTAG, Trace	Flash	ECC	RAM	
XMC4500 series																										
XMC4504-F100F512	-	•	•	4.79	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	512	•	128
XMC4504-F100K512	-	•	•	5.27	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	512	•	128
XMC4504-F144F512	-	•	•	5.18	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	512	•	128
XMC4504-F144K512	-	•	•	5.70	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	512	•	128
XMC4502-F100F768	-	•	•	5.18	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	768	•	160
XMC4502-F100K768	-	•	•	5.70	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	768	•	160
XMC4500-F100F768	-	•	•	5.57	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	768	•	160
XMC4500-F100F1024	-	•	•	5.77	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	160
XMC4500-F100K768	-	•	•	6.13	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	768	•	160
XMC4500-F100K1024	-	•	•	6.54	LQFP-100	75	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1024	•	160
XMC4500-F144F768	-	•	•	5.96	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	768	•	160
XMC4500-F144F1024	-	•	•	6.16	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	160
XMC4500-F144K768	-	•	•	6.13	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	768	•	160
XMC4500-F144K1024	-	•	•	6.77	LQFP-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1024	•	160
XMC4500-E144F1024	-	•	•	6.67	LFPGA-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	160
XMC4500-E144X1024	-	•	•	7.08	LFPGA-144	119	Cortex®-M4	120	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 105	1024	•	160
XMC4700 series																										
XMC4700-F100F1536	-	•	•	7.16	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4700-F100F2048	-	•	•	7.97	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4700-F100K1536	-	•	•	7.88	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1536	•	276
XMC4700-F100K2048	-	•	•	8.77	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352
XMC4700-F144F1536	-	•	•	7.58	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4700-F144F2048	-	•	•	8.38	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4700-F144K1536	-	•	•	8.34	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	40 to 125	1536	•	276
XMC4700-F144K2048	-	•	•	9.22	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog			Timer/PWM						Communication										LED display	Capacitive touch				
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)							External Bus Unit (EBU)			
																# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/IC	IIS/I ² S	LIN						
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	-	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	-	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	-	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	-	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	-	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
4	●	●	-	120	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	3	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch

32-bit microcontroller

Product type/part number	Markets			Budgetary web price [€/1 kpcs]	Package	GPIOs	Core		Co-processor			System						Debug		Supply voltage [V]	Operating temperature range T _A [°C]	Memory				
	Automotive	Industrial	Consumer				Processor type	Core frequency [MHz]	CORDIC/DIV	DSP	FPU	ERU	DMA	MPU	CRC	PRNG	Watchdog	Real-Time Clock	SWD, SPD			JTAG, Trace	Flash	ECC	RAM	
XMC4700 series																										
XMC4700-E196F1536	-	•	•	7.99	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4700-E196F2048	-	•	•	8.80	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4700-E196K1536	-	•	•	8.79	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1536	•	276
XMC4700-E196K2048	-	•	•	9.68	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352
XMC4800 series																										
XMC4800-F100F1024	-	•	-	11.84	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	200
XMC4800-F100F1536	-	•	-	12.71	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4800-F100F2048	-	•	-	13.58	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4800-F100K1024	-	•	-	13.02	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1024	•	200
XMC4800-F100K1536	-	•	-	13.98	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1536	•	276
XMC4800-F100K2048	-	•	-	14.94	LQFP-100	75	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352
XMC4800-F144F1024	-	•	-	12.29	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	200
XMC4800-F144F1536	-	•	-	13.16	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4800-F144F2048	-	•	-	14.03	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4800-F144K1024	-	•	-	13.51	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1024	•	200
XMC4800-F144K1536	-	•	-	14.47	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1536	•	276
XMC4800-F144K2048	-	•	-	15.43	LQFP-144	119	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352
XMC4800-E196F1024	-	•	-	12.73	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1024	•	200
XMC4800-E196F1536	-	•	-	13.60	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	1536	•	276
XMC4800-E196F2048	-	•	-	14.47	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 85	2048	•	352
XMC4800-E196K1024	-	•	-	14.01	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1024	•	200
XMC4800-E196K1536	-	•	-	14.96	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	1536	•	276
XMC4800-E196K2048	-	•	-	15.92	LFBGA-196	155	Cortex®-M4	144	-	•	•	2	12 ch	1	1	•	•	•	•	•	•	3.13 to 3.63	-40 to 125	2048	•	352

BCCU = Brightness and Color Control Unit for LED lighting

CCU = Capture Compare Unit

FPU = Floating Point Unit

MMC = Multi Media Card

POSIF = Motor Position Interface

SDIO = SD Card Interface with Input/Output

USIC = UART/SCI, SPI, Dual-SPI, Quad-SPI, IIC/I²C, IIS/I²S, LIN

Cache	EEPROM emulation in flash	Data/IP protection	Secure bootloader	Peripherals clock [MHz]	Analog			Timer/PWM						Communication										LED display	Capacitive touch					
					No. of 12-bit ADC/ No. of sample & hold/ No. of inputs	12-bit DAC	Comparator	CCU4	CCU8	HRPWM (150 ps)	$\Delta\Sigma$ Demodulator	POSIF	BCCU/LED	EtherCAT®	IEEE1588 Ethernet MAC	CAN 2.0B nodes	USB	SDIO/SD/MMC	USIC (Universal Serial Interface Controller)							External Bus Unit (EBU)				
																		# channels	SPI	Dual SPI	Quad SPI	UART/SCI	IIC/°C	IIS/°S	LIN					
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	-	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/18	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch
8	●	●	-	144	4/4/26	2 ch	-	16 ch	8 ch	-	4 ch	2x	-	●	●	6	●	●	6 ch	●	●	●	●	●	●	●	●	●	1x 64 segment	8 ch

32-bit microcontroller

Product type	Markets			Package	TriCore™	Program flash			Data flash			SRAM	DMA	ADC		Timer - GTM			
	Automotive	Industrial	Consumer			Temperature T _A [°C]	Package (Pitch)	# Cores/checker	Max frequency [MHz]	Size [MB]	Data retention			Physical size [kb]	Erase cycles	Data retention	Total (DMI, PMI) [KB]	Channels	Modules 12-bit (SAR) / 16-bit (DS)
AURIX™ – family																			
SAK-TC299TX-128F300	●	●	-	125	LFBGA-516 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	84/10 diff	48/152	80	72
SAK-TC299TY-128F300	●	●	-	125	LFBGA-516 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	84/10 diff	48/152	80	72
SAK-TC299TP-128F300	●	●	-	125, 150	LFBGA-516 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	728	128	11/10	84/10 diff	48/152	80	72
SAK-TC298TP-128F300	●	●	-	125, 150	LFBGA-416 (1.0 mm)	3/1	300	8	20 years	768	125 k	10 years	728	128	11/10	62/10 diff	48/152	80	72
SAK-TC297TA-128F300	●	●	-	125	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	60/6 diff	48/152	80	72
SAK-TC297TB-128F300	●	●	-	125	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	60/6 diff	48/152	80	72
SAK-TC297TX-128F300	●	●	-	125	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	60/6 diff	48/152	80	72
SAK-TC297TY-128F300	●	●	-	125	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	2776	128	11/10	60/6 diff	48/152	80	72
SAK-TC297TP-128F300	●	●	-	125, 150	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	728	128	11/10	60/6 diff	48/152	80	72
SAK-TC297T-128F300	●	●	-	125, 150	LFBGA-292 (0.8 mm)	3/1	300	8	20 years	768	125 k	10 years	728	128	11/10	60/6 diff	48/152	80	72
SAK-TC277TP-64F200	●	●	-	125, 150	LFBGA-292 (0.8 mm)	3/2	200	4	20 years	384	125 k	10 years	472	64	8/6	60/6 diff	32/88	48	40
SAK-TC277T-64F200	●	●	-	125, 150	LFBGA-292 (0.8 mm)	3/2	200	4	20 years	384	125 k	10 years	472	64	8/6	60/6 diff	32/88	48	40
SAK-TC275TP-64F200	●	●	-	125, 150	LQFP-176 (0.5 mm)	3/2	200	4	20 years	384	125 k	10 years	472	64	8/6	48/6 diff	32/88	48	40
SAK-TC275T-64F200	●	●	-	125, 150	LQFP-176 (0.5 mm)	3/2	200	4	20 years	384	125 k	10 years	472	64	8/6	48/6 diff	32/88	48	40
SAK-TC267D-40F200	●	●	-	125, 150	LFBGA-292 (0.8 mm)	2/1	200	2.5	20 years	96	125 k	10 years	240	48	4/3	56/3 diff	24/ 64	32	32
SAK-TC265D-40F200	●	●	-	125, 150	LQFP-176 (0.5 mm)	2/1	200	2.5	20 years	96	125 k	10 years	240	48	4/3	50/3 diff	24/ 64	32	32
SAK-TC264DA-40F200	●	●	-	125	LQFP-144 (0.5 mm)	2/1	200	2.5	20 years	96	125 k	10 years	752	48	4/3	40/3 diff	24/ 64	32	32
SAK-TC264D-40F200	●	●	-	125, 150	LQFP-144 (0.5 mm)	2/1	200	2.5	20 years	96	125 k	10 years	240	48	4/3	40/3 diff	24/ 64	32	32

DTM – 2x, 4 ch	Timer	Interfaces															Safety	Security	Power	
		FlexRay (#/ch.)	CAN-FD (nodes/obj)(DIS 2014)	CAN-FD (nodes/obj)(DIS 2015)	Queued Synchronous Peripheral Interface (QSPI)	Asynchronous/Synchronous Interface (ASCLIN)	Inter-Integrated Circuit Bus Interface (I ² C)	Single Edge Nibble Transmission (SENT)	Peripheral Sensor Interface (PSI5)	PSI with Serial PHY Connection (PSI5S)	High-Speed Communication Tunnel (HSCT)	Micro Second Channel (MSC)	External bus interface e.g. ext. memory	FFT accelerator engine	Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF)	Ethernet MAC 100 Mbit/s			SIL level	Hardware Security Module (HSM)
-	2/1	2/4	6/384	4	6	4	2	15	5	1	1	3 diff LVDS	1	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	6	4	2	15	5	1	1	3 diff LVDS	1	-	-	1	ASIL-D	No	Yes	SRAM
-	2/1	2/4	6/384	4	6	4	2	15	5	1	1	3 diff LVDS	1	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	4	4	2	15	5	1	1	3 diff LVDS	1	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	5	4	2	15	5	1	1	3 diff LVDS	-	1	1	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	5	4	2	15	5	1	1	3 diff LVDS	-	1	1	1	ASIL-D	No	Yes	SRAM
-	2/1	2/4	6/384	4	5	4	2	15	5	1	1	3 diff LVDS	-	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	5	4	2	15	5	1	1	3 diff LVDS	-	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	2/4	6/384	4	5	4	2	15	5	1	1	3 diff LVDS	-	-	-	1	ASIL-D	No	Yes	SRAM
-	2/1	1/2	4/256	4	4	4	1	10	3	1	1	2 diff LVDS	-	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	1/2	4/256	4	4	4	1	10	3	1	1	2 diff LVDS	-	-	-	1	ASIL-D	No	Yes	SRAM
-	2/1	1/2	4/256	4	4	4	1	10	3	1	1	2 diff LVDS	-	-	-	1	ASIL-D	Yes	Yes	SRAM
-	2/1	1/2	4/256	4	4	4	1	10	3	1	1	2 diff LVDS	-	-	-	1	ASIL-D	No	Yes	SRAM
-	2/1	1/2	5/256	No	4	4	1	6	2	1	1	2 diff LVDS	-	-	-	1	ASIL-D	No	Yes	Yes
-	2/1	1/2	5/256	4	4	4	1	6	2	1	1	2 diff LVDS	-	-	-	1	ASIL-D	No	Yes	Yes
-	2/1	1/2	5/256	4	4	4	1	6	2	1	1	2 diff LVDS	-	1	1	1	ASIL-D	No	Yes	Yes
-	2/1	1/2	5/256	4	4	4	1	6	2	1	1	2 diff LVDS	-	-	-	1	ASIL-D	No	Yes	Yes

32-bit microcontroller

Product type	Markets			Package		TriCore™		Program flash		Data flash			SRAM	DMA	ADC		Timer - GTM		
	Automotive	Industrial	Consumer	Temperature T _A [°C]	Package (Pitch)	# Cores/checker	Max frequency [MHz]	Size [MB]	Data retention	Physical size [kb]	Erase cycles	Data retention	Total (DMI, PMI) [KB]	Channels	Modules 12-bit (SAR) / 16-bit (DS)	Channels VADC/DSADC	GTM input/output channels	TOM – standard 16-bit PWM ch.	ATOM – complex 24-bit PWM ch.
AURIX™ – family																			
SAK-TC234LA-32F200	●	●	-	125	TQFP-144 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	704	16	4/-	24/-	8/32	32	-
SAK-TC234LX-32F200	●	●	-	125	TQFP-144 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	704	16	2/-	24/-	8/32	32	-
SAK-TC237LP-32F200	●	●	-	125, 150	LFBGA-292 (0.8 mm)	1/1	200	2	20 years	128	125 k	10 years	192	16	2/-	24/-	8/32	32	-
SAK-TC234LP-32F200	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	192	16	2/-	24/-	8/32	32	-
SAK-TC234L-32F200	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	192	16	2/-	24/-	8/32	32	-
SAK-TC233L-32F200	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	192	16	2/-	24/-	8/32	32	-
SAK-TC233LP-32F200	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	192	16	2/-	24/-	8/32	32	-
SAK-TC224L-16F133	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/1	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC224S-16F133	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/0	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC223L-16F133	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/1	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC223S-16F133	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/0	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC222L-16F133	●	●	-	125, 150	TQFP-80 (0.4 mm)	1/1	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC222S-16F133	●	●	-	125, 150	TQFP-80 (0.4 mm)	1/0	133	1	20 years	96	125 k	10 years	96	16	2/-	24/-	8/32	32	-
SAK-TC214L-8F133	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/1	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-
SAK-TC214S-8F133	●	●	-	125, 150	TQFP-144 (0.4 mm)	1/0	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-
SAK-TC213L-8F133	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/1	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-
SAK-TC213S-8F133	●	●	-	125, 150	TQFP-100 (0.4 mm)	1/0	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-
SAK-TC212L-8F133	●	●	-	125, 150	TQFP-80 (0.4 mm)	1/1	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-
SAK-TC212S-8F133	●	●	-	125, 150	TQFP-80 (0.4 mm)	1/0	133	0.5	20 years	64	125 k	10 years	56	16	2/-	24/-	8/32	32	-

DTM – 2x, 4 ch	Timer	Interfaces															Safety	Security	Power	
		FlexRay (#/ch.)	CAN-FD (nodes/obj)(DIS 2014)	CAN-FD (nodes/obj)(DIS 2015)	Queued Synchronous Peripheral Interface (QSPI)	Asynchronous/Synchronous Interface (ASCLIN)	Inter-Integrated Circuit Bus Interface (I ² C)	Single Edge Nibble Transmission (SENT)	Peripheral Sensor Interface (PSI5)	PSI with Serial PHY Connection (PSI5S)	High-Speed Communication Tunnel (HSCT)	Micro Second Channel (MSC)	External bus interface e.g. ext. memory	FFT accelerator engine	Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF)	Ethernet MAC 100 Mbit/s			SIL level	Hardware Security Module (HSM)
2	2/1	1/2	6/256	No	4	2	-	4	-	-	-	-	-	1	-	1	ASIL-D	Yes	Yes	WUT + SRAM
2	2/1	1/2	6/256	No	4	2	-	4	-	-	-	-	-	-	-	1	ASIL-D	Yes	Yes	WUT + SRAM
2	2/1	1/2	6/256	4	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	Yes	Yes	WUT + SRAM
2	2/1	1/2	6/256	4	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	Yes	Yes	WUT + SRAM
2	2/1	1/2	6/256	4	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	1/2	6/256	4	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	1/2	6/256	4	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	Yes	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-B	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-B	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-B	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-B	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-D	No	Yes	WUT + SRAM
2	2/1	-	3/128	3	4	2	-	4	-	-	-	-	-	-	-	-	ASIL-B	No	Yes	WUT + SRAM

32-bit microcontroller

Product type	Markets			Temperature T _A [°C]	Package (Pitch)	TriCore™		Program flash		Data flash			SRAM Total (DMI, PMI) [KB]	DMA Channels
	Automotive	Industrial	Consumer			# Cores/checker	Max frequency [MHz]	Size [MB]	Data retention	Physical size [kb]	Erase cycles	Data retention		
AURIX™ – family														
TC397XA-256F300S	●	●	–	125	LFBGA-292 (0.8 mm)	6/4	300	16	20 years	512	125 k	10 years	6912	128
TC399XX-256F300S	●	●	–	125–150	LFBGA-516 (0.8 mm)	6/4	300	16	20 years	512	125 k	10 years	6912	128
TC399XP-256F300S	●	●	–	125–150	LFBGA-516 (0.8 mm)	6/4	300	16	20 years	512	125 k	10 years	2816	128
TC397XX-256F300S	●	●	–	125–150	LFBGA-292 (0.8 mm)	6/4	300	16	20 years	512	125 k	10 years	6912	128
TC397XP-256F300S	●	●	–	125–150	LFBGA-292 (0.8 mm)	6/4	300	16	20 years	512	125 k	10 years	2816	128
TC389QP-160F300S	●	●	–	125–150	LFBGA-516 (0.8 mm)	4/2	300	10	20 years	512	125 k	10 years	1568	128
TC387QP-160F300S	●	●	–	125–150	LFBGA-292 (0.8 mm)	4/2	300	10	20 years	512	125 k	10 years	1568	128
TC377TX-96F300S	●	●	–	125	LFBGA-292 (0.8 mm)	3/3	300	6	20 years	256	125 k	10 years	4208	128
TC377TP-96F300S	●	●	–	125–150	LFBGA-292 (0.8 mm)	3/2	300	6	20 years	256	125 k	10 years	1136	128
TC375TP-96F300W	●	●	–	125–150	LQFP-176 (0.5 mm)	3/2	300	6	20 years	256	125 k	10 years	1136	128
TC367DP-64F300S	●	●	–	125–150	LFBGA-292 (0.8 mm)	2/2	300	4	20 years	128	125 k	10 years	672	64
TC365DP-64F300W	●	●	–	125–150	LQFP-176 (0.5 mm)	2/2	300	4	20 years	128	125 k	10 years	672	64
TC364DP-64F300W	●	●	–	125–150	LQFP-176 (0.5 mm)	2/2	300	4	20 years	128	125 k	10 years	672	64
TC364DP-64F300F	●	●	–	125–150	TQFP-144 (0.4 mm)	2/2	300	4	20 years	128	125 k	10 years	672	64
TC357TA-64F300S	●	●	–	125	LFBGA-292 (0.8 mm)	3/2	300	4	20 years	128	125 k	10 years	3152	64
TC337DA-32F200S	●	●	–	125	LFBGA-292 (0.8 mm)	2/1	200	2	20 years	128	125 k	10 years	1328	16
TC337LP-32F200S	●	●	–	125–150	LFBGA-292 (0.8 mm)	1/1	200	2	20 years	128	125 k	10 years	248	16
TC334LP-32F200F	●	●	–	125–150	TQFP-144 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	248	16
TC333LP-32F200F	●	●	–	125–150	TQFP-100 (0.4 mm)	1/1	200	2	20 years	128	125 k	10 years	248	16
TC327LP-16F160S	●	●	–	125–150	LFBGA-292 (0.8 mm)	1/1	160	1	20 years	96	125 k	10 years	152	16
TC324LP-16F160F	●	●	–	125–150	TQFP-144 (0.4 mm)	1/1	160	1	20 years	96	125 k	10 years	152	16
TC323LP-16F160F	●	●	–	125–150	TQFP-100 (0.4 mm)	1/1	160	1	20 years	96	125 k	10 years	152	16

ASC = Asynchronous Serial Channel
EVR = Embedded Voltage Regulator

FPU = Floating Point Unit
MSC = Micro Second Channel

MLI = Micro Link Interface
PCP = Peripheral Control Processor

Timer	Interfaces														Safety	Security	Power	
GTM/CCU/GPT modules	FlexRay (#/ch.)	CAN-FD	Queued Synchronous Peripheral Interface (QSPI)	Asynchronous/Synchronous Interface (ASCLIN)	Inter-Integrated Circuit Bus Interface (I ² C)	Single Edge Nibble Transmission (SENT)	Peripheral Sensor Interface (PSIS)	PSI with Serial PHY Connection (PSI5S)	High-Speed Communication Tunnel (HSCT)	Micro Second Channel (MSC)	External bus interface e.g. ext. memory	Signal Processing Unit (SPU)	Camera (incl. pixel preprocessing) & ext. ADC 16-bit interface (CIF)	Ethernet MAC 100 Mbit/s	SIL level	Hardware Security Module (HSM)	Embedded Voltage Regulator (EVR) (5V/3.3V)	Standby control unit
Yes/Yes/Yes	4	12	6	12	2	17	4	Yes	2	2	-	2	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	6	12	2	25	4	Yes	2	4	yes	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	6	12	2	25	4	Yes	2	4	yes	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	6	12	2	20	4	Yes	2	2	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	6	12	2	20	4	Yes	2	2	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	5	24	2	25	4	Yes	1	3	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	4	12	5	24	2	20	4	Yes	1	2	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	12	5	12	1	15	2	Yes	1	2	-	-	1	2/2	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	5	12	1	15	2	Yes	1	2	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	5	12	1	15	2	Yes	1	2	-	-	-	1/0	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	12	1	10	2	Yes	1	1	-	-	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	12	1	10	2	Yes	1	1	-	-	-	1/0	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	12	1	10	2	Yes	1	1	-	-	-	1/0	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	4	-	-	-	-	-	-	-	2	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	12	-	6	-	-	-	-	-	1	-	1/1	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	12	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	11	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	6	4	12	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	4	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	8	4	4	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)
Yes/Yes/Yes	2	6	4	4	-	6	-	-	-	-	-	-	-	-/-	ASIL-D	Full eVita	Yes	Yes (8 bit)

SDIO = SD Card Interface with Input/Output
SENT = Single Edge Nibble Transmission

SSC = Synchronous Serial Channel
USIC = ASC, SPI, I²C, I²S

K = -40/+125 °C

16/32-bit microcontroller

Product type	Automotive	Industrial	Consumer	Temperature ranges	Package	Max clock frequency [MHz]	Program memory [kByte]	SRAM (incl. cache) [kByte]	Co-processor
XC2000 family – for automotive applications									
XC2200 for body applications									
U-series									
XC2220U	●	–	–	F, K	VQFN-48	40	32–64	8	MAC
L-series									
XC2224L	●	–	–	F, K	VQFN-48	66	96–160	12	MAC
XC2234L	●	–	–	F, K	LQFP-64	66	96–160	12	MAC
N-series									
XC2238N	●	–	–	F, K	LQFP-64	80	192–320	34	MAC
XC2268N	●	–	–	F, K	LQFP-100	80	192–320	34	MAC
M-series									
XC2237M	●	–	–	F, K	LQFP-64	80	448–832	50	MAC
XC2267M	●	–	–	F, K	LQFP-100	80	448–832	50	MAC
XC2287M	●	–	–	F, K	LQFP-144	80	448–832	50	MAC
I-series									
XC2269I	●	–	–	F, K	LQFP-100	128	1088	90	MAC
XC2289I	●	–	–	F, K	LQFP-144	128	1088	90	MAC
H-series									
XC2289H	●	–	–	F, K	LQFP-144	100	1600	138	MAC
XC2299H	●	–	–	F, K	LQFP-176	100	1600	138	MAC
XC2300 for safety applications									
A-series									
XC2336A	●	–	–	F, K	LQFP-64	40	448–832	50	MAC
XC2365A	●	–	–	F, K	LQFP-100	80	448–832	50	MAC
XC2387A	●	–	–	F, K	LQFP-144	80	448–832	50	MAC
B-series									
XC2336B	●	–	–	F, K	LQFP-64	80	320	34	MAC
XC2365B	●	–	–	F, K	LQFP-100	80	192–320	18–34	MAC
C-series									
XC2388C	●	–	–	F, K	LQFP-144	100	1088–1600	138	MAC

Digital I/O lines	Number of ADC channels	Timed IO channels (PWM, capture)	External bus interface	CAN nodes	Ethernet	Communication interfaces	Additional features / remarks
33	10	17	✓	–	–	1x USIC	–
33	10	23	✓	2	–	2x USIC	–
49	19	24	✓	2	–	2x USIC	CuWb
38	9	22	✓	6	–	4x USIC	CuWb
76	16	32	✓	6	–	6x USIC	CuWb
38	9	22	✓	6	–	6x USIC	–
76	16	32	✓	6	–	8x USIC	CuWb
119	24	44	✓	6	–	8x USIC	CuWb
76	19	32	✓	6	–	10x USIC, 2x FlexRay	CuWb
118	28	44	✓	6	–	10x USIC, 2x FlexRay	CuWb
119	24	44	✓	4	–	10x USIC, 2x FlexRay	–
150	30	66	✓	6	–	10x USIC, 2x FlexRay	–
38	9	24	✓	2	–	4x USIC	–
76	16	24	✓	3	–	6x USIC	CuWb
119	24	32	✓	3	–	6x USIC	CuWb
38	9	20	✓	2	–	4x USIC	CuWb
76	16	24	✓	3	–	6x USIC	CuWb
119	24	32	✓	4	–	10x USIC, 2x FlexRay	–

16/32-bit microcontroller

Product type	Automotive	Industrial	Consumer	Temperature ranges	Package	Max clock frequency [MHz]	Program memory [kByte]	SRAM (incl. cache) [kByte]	Co-processor
XC2300 for safety applications									
D-series									
XC2321D	●	-	-	F, K	VQFN-48	80	96-160	12	MAC
XC2331D	●	-	-	F, K	LQFP-64	80	96-160	12	MAC
E-series									
XC2368E	●	-	-	F, K	LQFP-100	128	576-1088	90	MAC
XC2388E	●	-	-	F, K	LQFP-144	128	576-1088	90	MAC
S-series									
XC2320S	●	-	-	F, K	VQFN-48	66	32-64	8	MAC
XC2700 for powertrain applications									
2-series									
XC2722X	●	-	-	K	VQFN-48	40	64	8	MAC
3-Series									
XC2723X	●	-	-	K	VQFN-48	66	160	12	MAC
XC2733X	●	-	-	K	LQFP-64	66	160	12	MAC
4-series									
XC2734X	●	-	-	K	LQFP-64	80	320	34	MAC
XC2764X	●	-	-	K	LQFP-100	80	320	34	MAC
5-series									
XC2765X	●	-	-	K	LQFP-100	80	576-832	50	MAC
XC2785X	●	-	-	K	LQFP-144	80	576-832	50	MAC
7-series									
XC2787X	●	-	-	K	LQFP-144	100	1600	138	MAC
8-series									
XC2768X	●	-	-	K	LQFP-100	128	1088	90	MAC
XC2788X	●	-	-	K	LQFP-144	128	1088	90	MAC

MAC = Multiply-Accumulate-Unit (DSP)

USIC = ASC, SPI, I²C, I²S

F = -40/+85 °C

K = -40/+125 °C

Digital I/O lines	Number of ADC channels	Timed IO channels (PWM, capture)	External bus interface	CAN nodes	Ethernet	Communication interfaces	Additional features / remarks
33	10	23	✓	2	-	2x USIC	-
49	19	24	✓	2	-	2x USIC	CuWb
75	16	32	✓	3	-	6x USIC, 2x FlexRay	CuWb
118	24	32	✓	3	-	8x USIC, 2x FlexRay	CuWb
33	10	17	✓	-	-	1x USIC	-
33	10	17	✓	-	-	2x USIC	-
33	10	23	✓	2	-	2x USIC	-
49	19	24	✓	2	-	2x USIC	CuWb
38	9	20	✓	2	-	4x USIC	CuWb
76	16	24	✓	2	-	4x USIC	CuWb
76	16	37	✓	2	-	4x USIC	CuWb
119	24	44	✓	2	-	4x USIC	CuWb
119	24	60	✓	2	-	6x USIC	-
76	19	32	✓	2	-	10x USIC, 2x FlexRay	CuWb
118	28	44	✓	2	-	10x USIC, 2x FlexRay	CuWb

16-bit microcontroller

Product type	Automotive	Industrial	Consumer	Temperature ranges	Package	Max clock frequency [MHz]	Program memory [kByte]	SRAM (incl. cache) [kByte]	Co-processor
C166 family									
C161									
C161CS-LF	●	●	–	B, F, K	TQFP-128	25	256/–	10	–
C161O/K/S-LM/-L25M/3V	●	●	–	B, F	MQFP-80	20/25	–	2/1/2	–
C161PI-LM/-L25M/3V	●	●	–	B, F	MQFP-100	20/25	–	3	–
C161PI-LF/-L25F/3V	●	●	–	B, F	TQFP-100	20/25	–	3	–
C164									
C164CI/CL-8EM/-8E25M	●	●	–	F, K	MQFP-80	20/25	64	4	–
C164CI-LM/-L25M/3V	●	●	–	F, K	MQFP-80	20	–	4	–
C164CM-4EF	●	●	–	F, K	TQFP-64	20	32	2	–
C165									
C165-LF/-L25F/3V	●	●	–	B, F	TQFP-100	20/25	–	2	–
C165-LM/-L25M/3V	●	●	–	B, F	MQFP-100	20/25	–	2	–
C167									
C167SR-LM	●	●	–	F, B, K	MQFP-144	25	–	4	–
C167CS-L16M/-LM/-L33M/-L40M 3V	●	●	–	F, B, K	MQFP-144	16/25/33/40	–	11	–
XC166 family									
XC164CM									
XC164CM	●	●	–	F, K	TQFP-64	40	64–128	6–8	MAC
XC164CI									
XC161CI	●	●	–	F, K	TQFP-144	40	128	8	MAC
XC164CS									
XC164CS	●	●	–	F, K	TQFP-100	40	128–256	8–12	MAC
XC167CI									
XC167CI	●	●	–	F, K	TQFP-144	40	128–256	8–12	MAC

Digital I/O lines	Number of ADC channels	Timed I/O channels (PWM, capture)	External bus interface	CAN nodes	Ethernet	Communication interfaces	Additional features / remarks
93	12	32	✓	2	-	2x ASC, 1x SSC, 1x I ² C, J1850	ROM less
63	-	-	✓	-	-	1x ASC, 1x SSC	ROM less
76	4	-	✓	-	-	1x ASC, 1x SSC, 1x I ² C	ROM less
76	4	-	✓	-	-	1x ASC, 1x SSC, 1x I ² C	ROM less
59	8	12	✓	1	-	1x ASC, 1x SSC	OTP
59	8	12	✓	1	-	1x ASC, 1x SSC	ROM less
50	8	16	✓	1	-	1x ASC, 1x SSC	OTP
77	-	-	✓	-	-	1x ASC, 1x SSC	ROM less
77	-	-	✓	-	-	1x ASC, 1x SSC	ROM less
111	16	36	✓	-	-	1x UART, 1x SSC	ROM less
111	24	36	✓	2	-	1x UART, 1x SSC	ROM less
47	14	20	✓	2	-	2x ASC, 2x SSC	-
99	12	32	✓	2	-	2x ASC, 2x SSC, 1x SDLM, 1x I ² C, J1850	-
79	14	36	✓	2	-	2x ASC, 2x SSC	-
103	16	36	✓	2	-	2x ASC, 2x SSC, 1x I ² C	-

16-bit microcontroller

Product type	Automotive	Industrial	Consumer	Temperature ranges	Package	Max clock frequency [MHz]	Program memory [kByte]	SRAM (incl. cache) [kByte]	Co-processor
XE166 real time signal controller for industrial and multi market									
Classic series - alpha line									
XE164x	-	●	●	F, K	LQFP-100	66/80	768	24-82	MAC
XE167x	-	●	●	F, K	LQFP-144	66/80	768	28-82	MAC
U series - compact line									
XE161x	-	●	●	F, K	VQFN-48	40/66	64	8	MAC
L series - econo line									
XE161x	-	●	●	F, K	VQFN-48	66/80	128-160	12	MAC
XE162x	-	●	●	F, K	LQFP-64	66/80	96-160	12	MAC
N series - value line									
XE162xN	-	●	●	F, K	LQFP-64	80	128-320	18-34	MAC
XE164xN	-	●	●	F, K	LQFP-100	-	128-320	18-34	MAC
M series - base line									
XE162xM	-	●	●	F, K	LQFP-64	80	384-576	24-50	MAC
XE164xM	-	●	●	F, K	LQFP-100	80	384-576	26-50	MAC
XE167xM	-	●	●	F, K	LQFP-144	80	384-576	34-50	MAC
H series - high line									
XE167xH	-	●	●	F, K	LQFP-144	100	1.024-1.600	138	MAC
XE169xH	-	●	●	F, K	LQFP-176	100	1.024-1.600	138	MAC

ASC = Asynchronous Serial Channel

MAC = Multiply-Accumulate-Unit (DSP)

SDLM = Serial Data Link Module

SSC = Synchronous Serial Channel

USIC = ASC, SPI, I²C, I²S

B = 0/+70 °C

F = -40/+85 °C

K = -40/+125 °C

Digital I/O lines	Number of ADC channels	Timed I/O channels (PWM, capture)	External bus interface	CAN nodes	Ethernet	Communication interfaces	Additional features / remarks
75	11-16	30-37	✓	0-4	-	4-6x USIC	-
118	16-24	30-44	✓	0-5	-	4-6x USIC	-
33	10	15	-	-	-	2x USIC	-
33	10	21	-	1	-	4x USIC	-
48	19	21	-	2	-	4x USIC	CuWb
40	9	23	✓	0-2	-	6x USIC	CuWb
75	11-16	30	✓	0-2	-	4-6x USIC	CuWb
40	9	23	-	0-2	-	6x USIC	-
76	11-16	30-37	✓	0-4	-	4-6x USIC	CuWb
119	16-24	30-44	✓	0-6	-	4-8x USIC	CuWb
98-118	24	60	✓	6	-	10x USIC	-
98-118	30	60	✓	6	-	10x USIC	-

8-bit microcontroller

Product type	Automotive	Industrial	Consumer	Temperature ranges	Package	Max clock frequency [MHz]	Program memory [KByte]	SRAM (incl. cache) [KByte]	Co-processor
C500 family									
C505CA-4EM /-LM	•	•	•	F, B, K	MQFP-44	20	0	1.25	–
C515C-8EM	•	•	•	F, B, K	MQFP-80	10	64	2.25	–
XC800 family									
XC82x-series									
XC822MT	•	•	•	F, K	TSSOP-16	24	2–4	0.5	–
XC83x-series									
XC836MT	•	•	•	F, K, L	TSSOP-28	24	4–8	0.5	VC
XC86x-series									
XC866	•	•	•	F, K, A, L	TSSOP-38	26.67	4–16	0.75	–
XC866L	•	•	•	F, K, A, L	TSSOP-38	26.67	4–16	0.75	–
XC87x-series									
XC878	•	•	•	F, K, X	LQFP-64	27	52–64	3	[VC]
XC88x-series									
XC886	•	•	•	F, K, A, L	TQFP-48	24	24–32	1.75	[VC]
XC888	•	•	•	F, K, [A], [L]	TQFP-64	24	24–32	1.74	[VC]
CIC family (companion IC)									
CIC61508	•	•	–	K	TSSOP-38	26.67	–	0.25	–

- [] = Optional features
- HCP = High Current Pads
- MAC = Multiply-Accumulate-Unit (DSP)
- MDU = Multiply Divide Unit

- LIN BSL = LIN Bootstrap Loader
- SSC = Synchronous Serial Channel
- TP = Touchpad Library in ROM
- VC = Vector Computer (MDU + CORDIC)

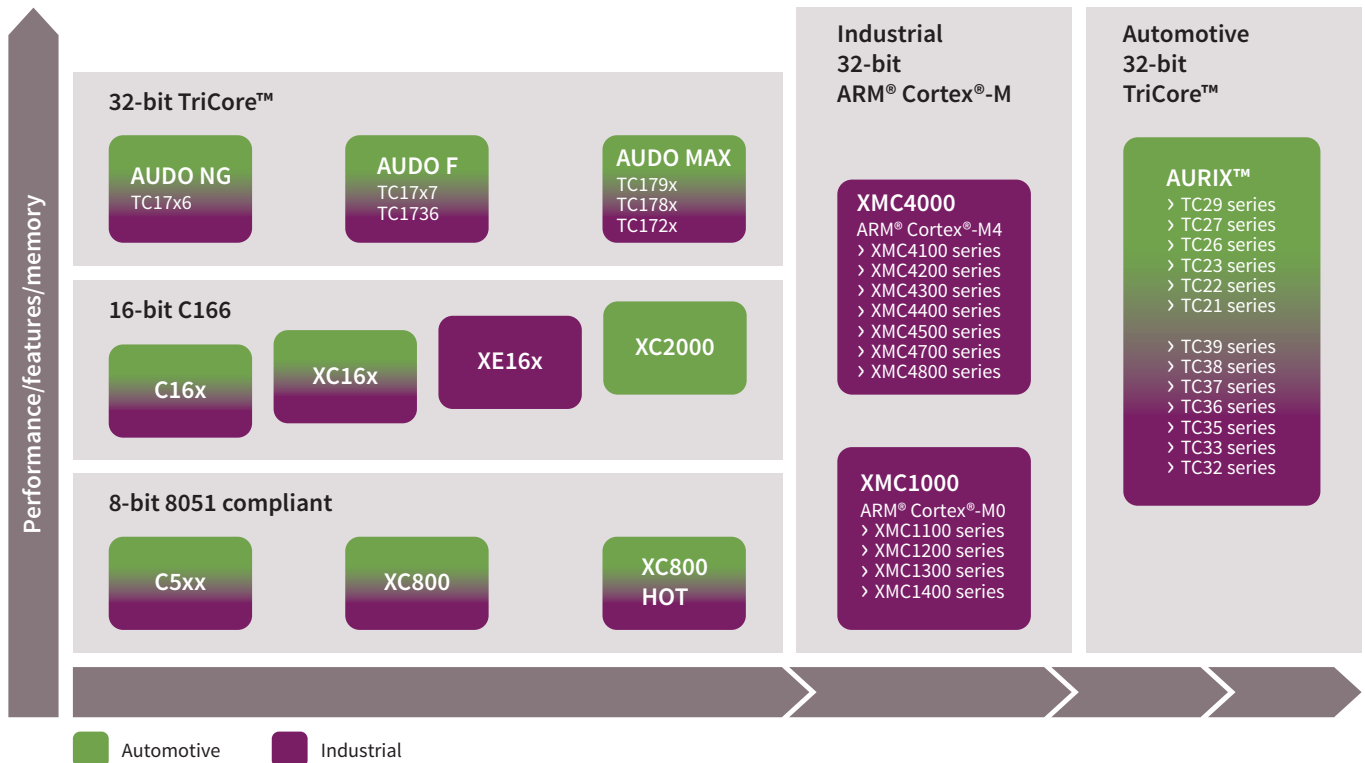
- A = -40/+140 °C
- F = -40/+85 °C
- K = -40/+125 °C
- L = -40/+150 °C
- X = -40/+105 °C

Digital I/O lines	Number of ADC channels	Timed I/O channels (PWM, capture)	External bus interface	CAN nodes	Ethernet	Communication interfaces	Additional features / remarks
34	8	4	-	1	-	1x USART	OTP, ROM less
49	8	4	-	1	-	1x USART, 1x SSC	OTP
17	4	4	-	-	-	1x UART, 1x SSC, LIN	-
25	8	4	-	-	-	1x UART, 1x SSC, LIN	-
27	8	4	-	-	-	1x UART, 1x SSC	-
27	8	4	-	-	-	1x UART, LIN BSL, 1x SSC	-
48	8	10	✓	[2]	-	2x UART, 1x SSC, [LIN]	-
34	8	4	-	[2]	-	2x UART, [LIN BSL], [1x SSC]	-
48	8	4	-	[2]	-	2x UART, [LIN BSL], [1x SSC]	-
-	-	-	-	-	-	Safety signature watchdog	Flash

Voltage regulators

Microcontroller family	Input voltage [V]	Input current (max) [mA]	Voltage regulator
XC8xx	5.0 ... 3.3	20	IFX20001/IFX24401/IFX2931/IFX25001/FX21401/IFX4949
XE166/XC2000	1.5 and 3.3 or 5.0	100	IFX25401/IFX24401/IFX2931/IFX4949
TriCore™	1.5 ... 3.3	> 400	IFX27001/IFX8117/IFX91041/IFX80471/IFX25001/IFX1117
XMC4000 series	3.3	300	IFX1763/IFX544xx
XMC1000 series	1.8 ... 5.5	< 100	IFX544xx/IFX542xx/IFX4949/IFX2931/IFX25001

Infineon microcontrollers roadmap





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