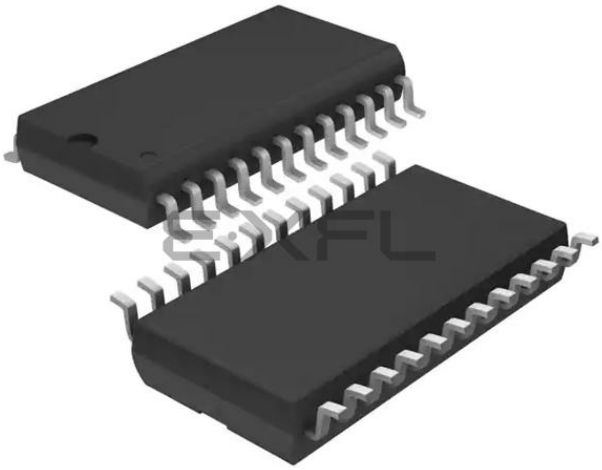
Infineon Technologies - XC835MT2FGIABFXUMA1 Datasheet



Details	
Product Status	Obsolete
Core Processor	XC800
Core Size	8-Bit
Speed	24MHz
Connectivity	I²C, SSC, UART/USART
Peripherals	Brown-out Detect/Reset, LED, POR, PWM, WDT
Number of I/O	21
Program Memory Size	8KB (8K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	512 x 8
Voltage - Supply (Vcc/Vdd)	2.5V ~ 5.5V
Data Converters	A/D 8x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	24-SOIC (0.295", 7.50mm Width)
Supplier Device Package	PG-DSO-24-1
Purchase URL	https://www.e-xfl.com/product-detail/infineon-technologies/xc835mt2fgiabfxuma1

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XC835/836 Data Sheet

Revision History: V1.4 2011-10

Previous Versions: V 1.2

Page	Subjects (major changes since last revision)
Page 3	Added a new variant (SAF-XC836-2FRA) in Table 2.
Page 24	Added the SAK temperature range in Table 7.
Page 21	Updated the Chip Identification number in Table 5.

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2.3 Pin Configuration

The pin configuration of the XC835 in **Figure 4**.

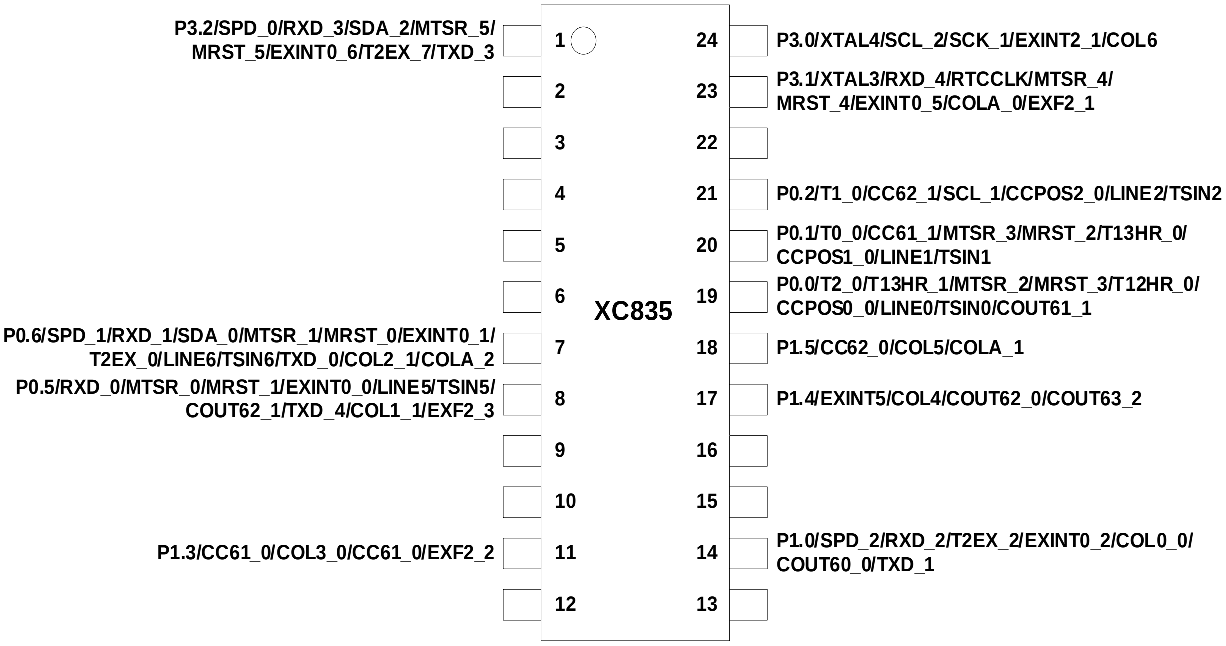

Figure 4 XC835 Pin Configuration, PG-DSO-24 Package (top view)

Table 16 shows the maximum active current within the device in the reduced voltage condition of 2.5 V < V_{DDP} < 3.0 V. The active current consumption needs to be below the specified values as according to the V_{DDP} voltage. If the conditions are not met, a brownout reset may be triggered.

Table 16 Active Current Consumption Reduced Voltage Condition

V_{DDP}	2.5 V	2.6 V	2.7 V	2.8 V
Maximum active current	7 mA	13 mA	20 mA	25 mA

Table 17 provides the active current consumption of some modules operating at 8 MHz active mode, 3 V power supply at 25° C. The typical values shown are used as a reference guide for device operating in reduced voltage conditions.

Table 17 Typical Active Current Consumption[1] [2]

Active Current Consumption	**Symbol**	**Limit Values**	**Unit**	**Test Condition**
		Typ.		
Baseload current[3]	I_{CPUDDC}	6900	µA	Modules including Core, memories, UART, T0, T1 and EVR. Disable ADC analog (GLOBCTR.ANON = 0).
ADC[4]	I_{ADCDDC}	3760	µA	Set PMCON1.ADC_DIS to 0 and GLOBECTR. ANON to 1
SSC[5]	I_{SSCDDC}	460	µA	Set PMCON1.SSC_DIS to 0
CCU6[6]	$I_{CCU6DDC}$	3320	µA	Set PMCON1.CCU_DIS to 0
Timer 2[7]	I_{T2DDC}	200	µA	Set PMCON1.T2_DIS to 0
MDU[8]	I_{MDUDDC}	1260	µA	Set PMCON1.MDU_DIS to 0
CORDIC[9]	$I_{CORDICDDC}$	1880	µA	Set PMCON1.CDC_DIS to 0
LEDTSCU[10]	I_{LEDDDC}	850	µA	Set PMCON1.LTS_DIS to 0
IIC[11]	I_{IICDDC}	580	µA	Set PMCON1.IIC_DIS to 0

1) Modules that are controllable by programming the register PMCON1.

2) Not subject to production test, verified by design/characterisation.

3) Baseload current is measured when the device is running in user mode with an endless loop in the flash memory. All modules in register PMCON1 are disabled.

4) ADC active current is measured with: module enable, ADC analog clock at 8MHz, running in parallel conversion request in autoscan mode for 4 channels

5) SSC active curremt is measured with: module enabled, running in loop back mode at a baud rate of 1 MBaud

6) CCU6 active current is measured with: module enabled, all timers running in 8 MHz, 6 PWM outputs are generated.