



C8051F061

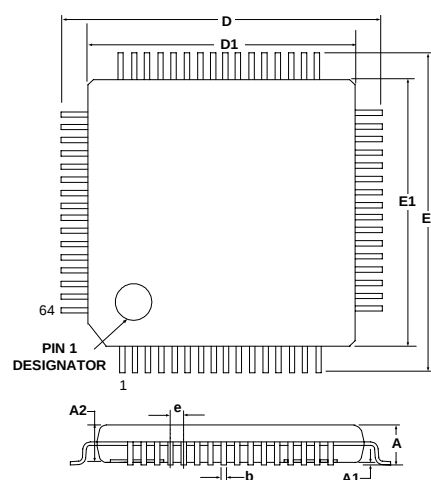
16-bit ADCs, CAN, 64KB FLASH, 64-Pin MCU

PRELIMINARY

SELECTED ELECTRICAL SPECIFICATIONS $T_A = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$, $V_{DD} = 2.7\text{V}$ unless otherwise specified.

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
GLOBAL CHARACTERISTICS					
Supply Voltage		2.7		3.6	V
Supply Current (CPU active)	Clock=25MHz		18		mA
	Clock=1MHz		0.7		mA
	Clock=32kHz; VDD Monitor Enabled		20		μA
Supply Current (shutdown)	Oscillator not running; VDD Monitor Disabled		0.1		μA
Clock Frequency Range		DC		25	MHz
16-BIT A/D CONVERTERS					
Resolution			16		bits
Integral Nonlinearity	Single-ended Mode		± 0.75	± 2	LSB
	Differential Mode		± 0.50	± 1	LSB
Differential Nonlinearity	Guaranteed Monotonic		± 0.5	± 1	LSB
Signal-to-Noise Plus Distortion	$F_{in} = 10\text{kHz}$, Single-ended		86		dB
	$F_{in} = 10\text{kHz}$, Differential		89		dB
Total Harmonic Distortion	$F_{in} = 10\text{kHz}$, Single-ended		96		dB
	$F_{in} = 10\text{kHz}$, Differential		103		dB
Spurious-Free Dynamic Range	$F_{in} = 10\text{kHz}$, Single-ended		97		dB
	$F_{in} = 10\text{kHz}$, Differential		104		dB
Throughput Rate				1	Msp/s
Input Voltage Range	Single-ended ($A_{INn} - A_{INnG}$)	0		V_{REF}	V
	Differential ($A_{IN0} - A_{IN1}$)	- V_{REF}		V_{REF}	V
Power Supply Current (each ADC)	Operating Mode, 1 Msp/s ($AV_{DD} + AV_{+}$)		5.5		mA
	Shutdown Mode		1		μA
D/A CONVERTERS					
Resolution			12		LSB
Differential Nonlinearity				± 1	LSB
Output Settling Time			10		μs

PACKAGE INFORMATION



	MIN (mm)	NOM (mm)	MAX (mm)
A	-	-	1.20
A1	0.05	-	0.15
A2	0.95	-	1.05
b	0.17	0.22	0.27
D	-	12.00	-
D1	-	10.00	-
e	-	0.50	-
E	-	12.00	-
E1	-	10.00	-

C8051F060DK DEVELOPMENT KIT

