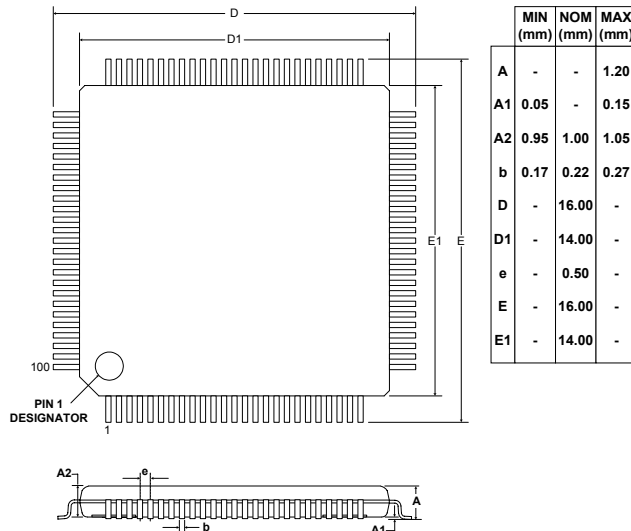


Selected Electrical Specifications

($T_A = -40$ to $+85$ °C, $V_{DD} = 2.7$ V unless otherwise specified)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
GLOBAL CHARACTERISTICS					
Digital Supply Voltage		2.7		3.6	V
Digital Supply Current with CPU active ($V_{DD} = 2.7$ V)	Clock = 25 MHz		10		mA
	Clock = 1 MHz		0.8		mA
	Clock = 32 kHz; V_{DD} Monitor Disabled		20		μ A
Digital Supply Current (shutdown)	Oscillator not running; V_{DD} Monitor Enabled		10		μ A
	Oscillator not running; V_{DD} Monitor Disabled		0.1		μ A
Digital Supply RAM Data Retention Voltage			1.5		V
CPU & DIGITAL I/O PORTS					
Clock Frequency Range		DC		25	MHz
Port Output High Voltage	$I_{OH} = -3$ mA, Port I/O push-pull	$V_{DD} - 0.7$			V
Port Output Low Voltage	$I_{OL} = 8.5$ mA			0.6	V
Input High Voltage		$0.7 \times V_{DD}$			V
Input Low Voltage				$0.3 \times V_{DD}$	V
A/D CONVERTER					
Resolution			10		bits
Integral Nonlinearity				± 1	LSB
Differential Nonlinearity	Guaranteed Monotonic			± 1	LSB
Signal-to-Noise Plus Distortion		59			dB
Throughput Rate				100	ksp/s
Input Voltage Range		0		V_{REF}	V
COMPARATORS					
Response Time	$ (CP+) - (CP-) = 100$ mV		4		μ s
Input Voltage Range		-0.25		$V_{DD} + 0.25$	V
Input Bias Current		-5	0.001	+5	nA
Input Offset Voltage		-10		+10	mV

Package Information



C8051F020DK Development Kit

