

USB Function Controller

- USB specification 2.0 compliant
- Full-speed (12 Mbps) or low-speed (1.5 Mbps) operation
- Integrated clock recovery; no external crystal required for either full-speed or low-speed operation
- Supports two fixed-function endpoints
- Dedicated 256 byte USB buffer memory
- Integrated transceiver; no external resistors required

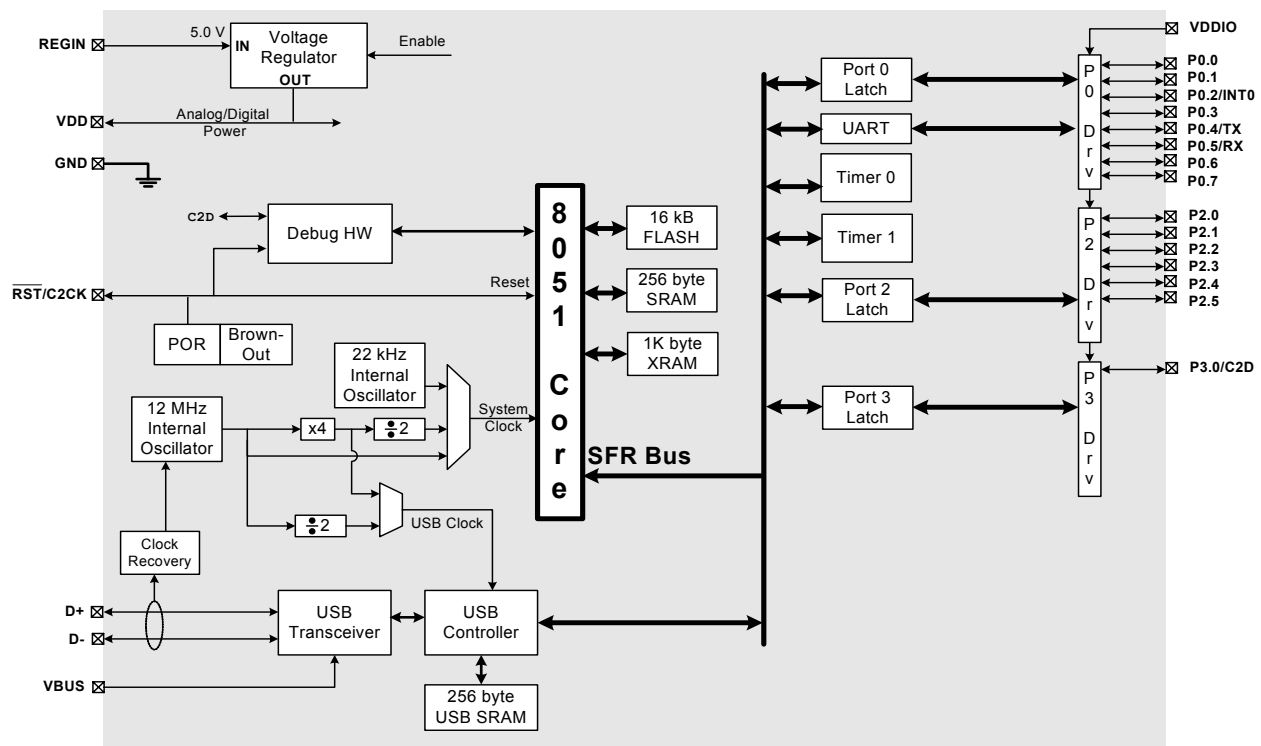
POR/Brown-Out Detector

On-Chip Debug

- On-chip debug circuitry facilitates full speed, non-intrusive in-system debug (no emulator required)
- Provides breakpoints, single stepping
- Inspect/modify memory, registers, and USB memory
- Superior performance to emulation systems using ICE-chips, target pods, and sockets

Separate I/O Supply Pin (V_{DDIO})

- Enables interfacing to external logic that operates between 2.0 V and V

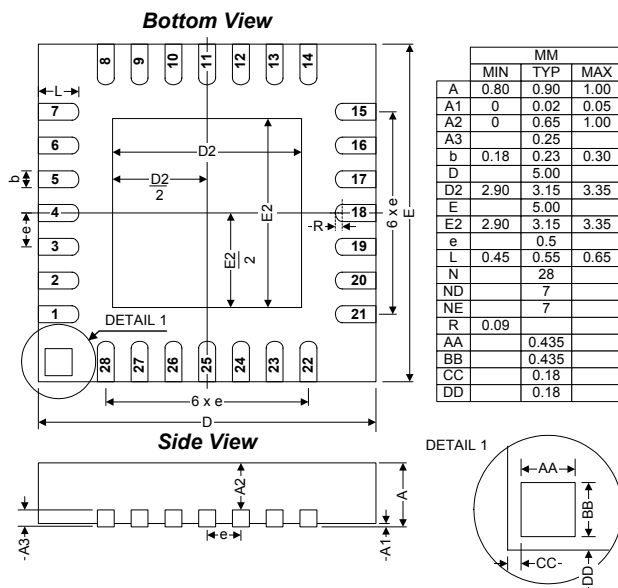


Selected Electrical Specifications

($T_A = 40$ to $+70$ °C, $V_{REG} = 5.0$ V unless otherwise specified)

Parameter	Conditions	Min	Typ	Max	Units
Global Characteristics					
Regulator Input Voltage (REGIN)		4.0	—	5.25	V
V_{DD} (V_{REG} Output)		3.0	3.3	3.6	V
V_{REG} Bias Current	V_{REG} Enabled	—	75	—	μ A
Supply Current with CPU and USB active	CPU Clock=24 MHz, USB Clock=48 MHz CPU Clock=12 MHz, USB Clock=6 MHz	—	18 9	—	mA mA
Supply Current (suspend mode, oscillator off)	V_{DD} Monitor Enabled; V_{REG} Disabled V_{DD} Monitor Disabled; V_{REG} Disabled	—	30 <0.1	—	μ A μ A
CPU System Clock Range		DC	—	25	MHz
Internal Oscillator and Clocks					
Frequency	Clock Recovery Enabled	11.97	12.0	12.03	MHz
	Clock Recovery Disabled	11.82	12.0	12.18	MHz
USB Clock	Full-Speed Operation	47.88	48.0	48.12	MHz
	Low-Speed Operation	5.91	6.0	6.09	MHz

Package Information



C8051F326DK Development Kit

