C2000[™] Piccolo[™] LaunchPad Evalution Kit



The C2000 Piccolo LaunchPad evaluation kit, based on the F28027 microcontroller (MCU), is a modular, quick-launch evaluation kit that contains everything needed – device, emulation and software – to explore the latest digital control techniques in areas such as power, lighting and motor control.



▲ C2000 LaunchPad (shown at actual size of 2.0" × 2.6")

Evaluation kit	Orderable part number	Price (\$ U.S.)
C2000 Piccolo LaunchPad	LAUNCHXL-F28027	17
LED BoosterPack (requires C2000 LaunchPad)	BOOSTXL-C2KLED	30

Rapidly prototype and speed time to market

- On-board JTAG emulator eliminates need for external emulator
- Double-sided header pins for easy access to peripheral pins and C2000 BoosterPack expansions
- Features new Piccolo F2802x MCU to bring powerful control capabilities of Piccolo MCUs to even more low-end applications
- No external hardware required to get started on C2000 LaunchPad
- Basic applications can make use of onboard hardware (such as LEDs and push buttons) and require no external components

Jump start software development

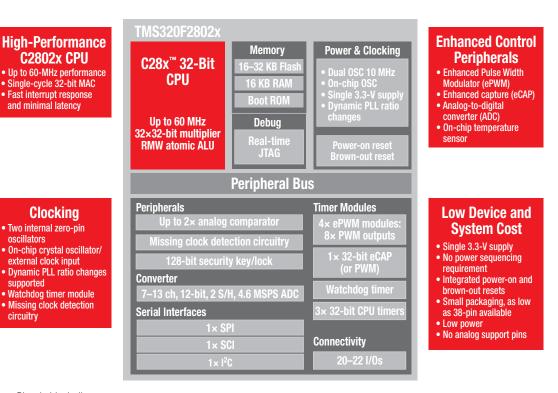
- Use TI's Code Composer Studio[™] v5 IDE for free with the C2000 LaunchPad
- Download controlSUITE[™] software for exhaustive examples, libraries and other resources, all free and open for use and modification
- Explore advanced application libraries, such as digital motor control and digital power
- Design your own BoosterPacks! C2000 LaunchPad and LED BoosterPack design files are open source and included in the controlSUITE software package



■ Expand your C2000 Piccolo LaunchPad with application-focused C2000 BoosterPacks, which plug right into the headers. Pictured: C2000 Piccolo LaunchPad plus C2000 LED BoosterPack plus MSP430™ Capacitive Touch BoosterPack

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The F2802x microcontrollers bring even more value to cost-sensitive applications requiring control-tuned processing, such as digital lighting control, digital power and digital motor control.



Piccolo block diagram

Clocking

external clock input

oscillators

supported

circuitry

F2802x series

Part number	CPU speed (MHz)	RAM (KB)	Flash (KB)	PWM channels	HRPWM	Timers	Captures	ADC	ADC speed (kSPS)	Comparators	SPI	SCI/ UART	I ² C	I/Os	Package	Temperature range	Pricing (\$ U.S.)
F28027	60	12	64	8	4	9	1	1× 12 bit	4600	1–2	1	1	1	20–22	38 TSSOP, 48 QFP	-40 to 125°C	2.92–3.55
F28026	60	12	32	8	4	9	1	1× 12 bit	4600	1–2	1	1	1	20–22	38 TSSOP, 48 QFP	-40 to 125°C	2.77–3.33
F28023	50	12	64	8	4	9	1	1× 12 bit	3800	1–2	1	1	1	20–22	38 TSSOP, 48 QFP	–40 to 125°C	2.53-3.09
F28022	50	12	32	8	4	9	1	1× 12 bit	3800	1–2	1	1	1	20–22	38 TSSOP, 48 QFP	–40 to 125°C	2.39–2.88
F28021	40	10	64	8	0	9	1	1× 12 bit	2000	1–2	1	1	1	20–22	38 TSSOP, 48 QFN	–40 to 125°C	2.29–2.54
F28020	40	6	32	8	0	9	1	1× 12 bit	2000	1–2	1	1	1	20–22	38 TSSOP, 48 QFN	–40 to 125°C	2.11–2.35
F280200	40	6	16	7	0	8	0	1× 12 bit	2000	1–2	1	1	1	20–22	38 TSSOP, 48 QFN	-40 to 125°C	1.91–2.09

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