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.



A Piccolo block diagram

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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