

Table 2-1. Hardware Features

FEATURE	TYPE ⁽¹⁾	28030 (60 MHz)			28031 (60 MHz)			28032 (60 MHz)			28033 (60 MHz)			28034 (60 MHz)			28035 (60 MHz)		
		80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN	80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN	80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN	80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN	80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN	80-Pin PN LQFP	64-Pin PAG TQFP	56-Pin RSH VQFN
Instruction cycle	–	16.67 ns			16.67 ns			16.67 ns			16.67 ns			16.67 ns			16.67 ns		
Control Law Accelerator	0	No			No			No			Yes			No			Yes		
On-chip flash (16-bit word)	–	16K			32K			32K			32K			64K			64K		
On-chip SARAM (16-bit word)	–	6K			8K			10K			10K			10K			10K		
Code security for on-chip flash/SARAM/OTP blocks	–	Yes			Yes			Yes			Yes			Yes			Yes		
Boot ROM (8K x 16)	–	Yes			Yes			Yes			Yes			Yes			Yes		
One-time programmable (OTP) ROM (16-bit word)	–	1K			1K			1K			1K			1K			1K		
ePWM channels	1	14	12	8	14	12	8	14	12	8	14	12	8	14	12	8	14	12	8
eCAP inputs	0	1			1			1			1			1			1		
eQEP modules	0	1			1			1			1			1			1		
Watchdog timer	–	Yes			Yes			Yes			Yes			Yes			Yes		
12-Bit ADC	MSPS	2.0			2.0			4.6			4.6			4.6			4.6		
	Conversion Time	500.00 ns			500.00 ns			216.67 ns			216.67 ns			216.67 ns			216.67 ns		
	Channels	16	14	13	16	14	13	16	14	13	16	14	13	16	14	13	16	14	13
	Temperature Sensor	Yes			Yes			Yes			Yes			Yes			Yes		
	Dual Sample-and-Hold	Yes			Yes			Yes			Yes			Yes			Yes		
32-Bit CPU timers	–	3			3			3			3			3			3		
High-resolution ePWM Channels	1	–			–			7	6	4	7	6	4	7	6	4	7	6	4
High-resolution Capture (HRCAP) Modules	0	–			–			2	2	–	2	2	–	2	2	–	2	2	–
Comparators with Integrated DACs	0	3			3			3			3			3			3		
Inter-integrated circuit (I ² C)	0	1			1			1			1			1			1		
Enhanced Controller Area Network (eCAN)	0	1			1			1			1			1			1		
Local Interconnect Network (LIN)	0	1			1			1			1			1			1		
Serial Peripheral Interface (SPI)	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1	2	1	1
Serial Communications Interface (SCI)	0	1			1			1			1			1			1		
I/O pins (shared)	GPIO	45	33	26	45	33	26	45	33	26	45	33	26	45	33	26	45	33	26
	AIO	6			6			6			6			6			6		
External interrupts	–	3			3			3			3			3			3		
Supply voltage (nominal)	–	3.3 V			3.3 V			3.3 V			3.3 V			3.3 V			3.3 V		

(1) A type change represents a major functional feature difference in a peripheral module. Within a peripheral type, there may be minor differences between devices that do not affect the basic functionality of the module. These device-specific differences are listed in the *TMS320x28xx, 28xxx DSP Peripheral Reference Guide* (literature number [SPRU566](#)) and in the peripheral reference guides.