

Rabbit 3000 / Rabbit 2000 Features Comparison

Feature	Rabbit 3000	Rabbit 2000
Maximum clock speed	54 MHz	30 MHz
Maximum crystal frequency main oscillator (may be doubled internally)	27 MHz	32 MHz
32.768 kHz oscillator	External	Internal
Maximum operating voltage	3.6 V	5.5 V
Maximum I/O input voltage	5.5 V	5.5 V
Operating current	2 mA/MHz @ 3.3 V	4 mA/MHz @ 5 V
Number of package pins	128	100
Size of package	16 × 16 × 1.5 mm LQFP*	24 × 18 × 3 mm PQFP
Spacing between package pins	0.4 mm (16 mils) LQFP	0.65 mm (26 mils) PQFP
Clock spectrum spreader (EMI reduction)	Yes	No
Clock modes	1x, 2x, /2, /3, /4, /6, /8	1x, 2x, /4, /8
Power down modes	Sleepy (32 kHz) Ultra-sleepy (16, 8, 2 kHz)	Sleepy (32 kHz)
Low-power memory control (chip select)	Short CS (CLK /4 /6 /8) Self-timed (32, 16, 8, 2 kHz) Current consumption, sleepy: ~20 mA	None
Extended memory timing for high-frequency operation	Yes	No
Number of 8-bit I/O ports	7	5
Auxiliary I/O data/address bus	Yes	No
Number of serial ports	6	4
Serial ports capable of SPI/clocked serial	4 (A, B, C, D)	2 (A, B)
Serial ports capable of SDLC/HDLC	2 (E, F)	None
Async serial ports with support for IrDA communications	6	None
Serial ports with support for SDLC/HDLC	2	None
Maximum asynchronous baud rate	Clock speed/8	Clock speed/32
Input pulse capture unit	2	None
Quadrature encoder inputs (quadrature decoders)	2	None

Dedicated PWM outputs	4	None
Glueless memory and I/O interface	6 memory devices 8 I/O devices	6 memory devices 8 I/O devices
Battery backable real-time clock	Yes	Yes
Watchdog timer/supervisor	Yes	Yes
Timers	Ten 8-bit timers One 10-bit timer	Five 8-bit timers One 10-bit timer
Slave interface	Yes	Yes
Remote cold boot	Asynchronous IrDA Asynchronous serial Synchronous serial Parallel (slave interface)	Asynchronous serial Synchronous serial Parallel (slave interface)

* TFBGA available in future (contact Rabbit Sales)