

RABBIT 3000[®] PROCESSOR

EASY REFERENCE

REGISTER LEGEND

- Read/Write
- Read Only
- Write Only
- Read (Special Behavior on Write Operation)

NOTE: ZERO MUST BE WRITTEN TO ALL UNUSED BITS

Processor Control

Global Clock Modulator Registers

GCMDR (0x04) W

GCMDR1 (0x05) W

GCMDR2 (0x06) W

Global Clock Double Register

GCDCR (0x07) R/W

Global Control/Status Register

GCSR (0x00) R/W

Global Output Control Register

GOCR (0x0E) W

Global Power Save Control Register

GPSR (0x0D) W

Processor Mode Select

PMSEL (0x00) W

Watchdog Timer

WDTCLR (0x08) W

WDTTR (0x09) W

Global Configuration Registers

GCGR (0x0A) W

GCGR1 (0x0B) W

GCGR2 (0x0C) W

Breakpoint/Debug Control Register

BDCR (0x1C) W

Memory Management Unit

1 MEG

64K

Stack Segment

Data Segment

Extended Program Counter Register

Possible Combinations of Memory Control Signals

Memory Bank Control Registers

MMU Instruction/Data Register

Memory Timing Control Register

MMU Expanded Code Register

Slave Port

Slave Port Control Register

Slave Port Status Register

Slave Port Data Registers

Aux I/O Port

Slave Port Interface Signals

Timer A

Timer A Control/Status Register

Timer A Prescaler Register

Timer A Control Register

Timer A Data Registers

Timer B

Timer B Control/Status Register

Timer B Control Register

Timer B Match 1 Register

Timer B Match 2 Register

Timer B Count Register

External Interrupt

Interrupt Control Register

Interrupt Control Register

Battery Backable Real-Time Clock

Watchdog Timer

Glueless Memory I/O Chip Control

Auxiliary I/O Data & Address Bus

Parallel & Bitwise I/O ports A, B, C, D, E, F, G

Asynchronous Serial (IrDA Capable) A, B, C, D, E, F

Synchronous Serial & SPI A, B, C, D

SDLC & HDLC (IrDA Support) E, F

Cascadable 8-Bit Timer System

Spectrum Spreader (Low EM)

Clock Doubler

Power Save and Clock Control

10-bit Timer System

Fast Oscillator

32.768 kHz Clock Input

Periodic Interrupt (488 μs)

PWM Outputs

Slave Interface

Remote Bootstrap

External I/O

I/O Address

I/O Bank

CTL Register

Port E

Port D

Port C

Port B

Port A

Parallel Ports

Parallel Port A

Parallel Port B

Parallel Port C

Parallel Port D

Parallel Port E

Parallel Port F

Parallel Port G

Parallel Port H

Parallel Port I

Parallel Port J

Parallel Port K

Parallel Port L

Parallel Port M

Real-Time Clock

Real-Time Clock Register

Real-Time Clock Control Register

Real-Time Clock Shortcuts

Pin Chart

PIN	NAME	ALT FUNCTION	OUTPUT	INPUT
1	VDDIO	65	VDDIO	
2	CLK	66	PC7	RXA
3	JCS2	67	POS	TXA
4	STATUS	68	PCS	RXB
5	JCEO	69	PC4	TXB
6	A10	70	PC3	RXC
7	JCS0	71	PC2	TXC
8	VDDCORE	72	VDDCORE	
9	VSSCORE	73	VSSCORE	
10	DP	74	PC1	RXD
11	VDDIO	75	PC0	TXD
12	DS	76	A4	
13	DA	77	A5	
14	DS	78	A6	
15	DS	79	A7	
16	VSSIO	80	VSSIO	
17	VDDIO	81	VDDIO	
18	OE1	82	A12	
19	DO	83	A15	
20	A0	84	A16	
21	A1	85	A18	
22	A2	86	A19	
23	A3	87	A17	
24	VDDCORE	88	VDDCORE	
25	VSSCORE	89	VSSCORE	
26	PE6	90	A14	
27	PE6	91	A13	
28	PE5	92	A8	
29	PE4	93	A9	
30	PE3	94	A11	
31	PE2	95	A01	
32	VSSIO	96	VSSIO	
33	VDDIO	97	VDDIO	
34	PE1	98	A19	
35	PE0	99	A18	
36	PE4	100	PE0	CLKD, QD1B
37	PE6	101	PE4	CLKC, QD1B
38	PE5	102	PE2	QD2B
39	PE4	103	PE3	QD1A
40	JORW	104	PE0	SD0, ID0
41	JORD	105	PE1	SD1, ID1
42	BURFN	106	PE2	SD2, ID2
43	AVDDOUT	107	PE3	SD3, ID3
44	SMOODE	108	PE4	SD4, ID4
45	SMOODE	109	PE5	SD5, ID5
46	RESET	110	PE6	SD6, ID6
47	JCS1	111	PE7	SD7, ID7
48	VSSIO	112	VSSIO	
49	CLK32K	113	XTALA1	
50	RESOUT	114	XTALB2	
51	VBAT	115	VBAT	
52	PE7	116	PE0	CLKB, CLKB
53	PE6	117	PE1	CLKA, CLKA
54	PE5	118	PE2	ICLQ, JSWR
55	PE4	119	PE3	IA1, SA0
56	PE3	120	PE4	IA2, SA0
57	PE2	121	PE5	IA3, SA1
58	PE1	122	PE6	IA4
59	PE0	123	PE7	IAS, SLAVETIN
60	PG3	124	PE4	PWM0, AQD0B
61	PG2	125	PE5	PWM1, AQD0A
62	PG1	126	PE6	PWM2, AQD0B
63	PG0	127	PE7	PWM3, AQD0A
64	VSSIO	128	VSSIO	

Parallel Port A

Parallel Port B

Parallel Port C

Parallel Port D

Parallel Port E

Parallel Port F

Parallel Port G

Parallel Port H

Parallel Port I

Parallel Port J

Parallel Port K

Parallel Port L

Parallel Port M

QFP

TFBGA

Pin 1 to 64

Pin 65 to 128

