

Compare Ethernet

	EIR 1.0C	Ethernut 5.0D	Ethernut 3.1D	Ethernut 2.1C 256	Ethernut 2.1C 128	Ethernut 1.3H
Processor						
CPU	AT91SAM7SE512	AT91SAM9XE512	AT91R40008	ATmega2561	ATmega128	ATmega128
Family	ARM7TDMI	ARM926EJ-S	ARM7TDMI	AVR	AVR	AVR
Ext. data bus	16 bit	32 bit	16 bit	8 bit	8 bit	8 bit
Clock	48 MHz	180 MHz	73.728 MHz	14.7456 MHz	14.7456 MHz	14.7456 MHz
Memory						
Static RAM	32 kB	32 kB	256 kB	48 kB	48 kB	32 kB
Banked RAM	-	-	-	464 kB	464 kB	-
SDRAM	64 MB	128 MB	-	-	-	-
Program flash	512 kB	512 kB	4 MB	256 kB	128 kB	128 kB
NAND flash	-	2 GB	-	-	-	-
Serial flash	4 MB	4 MB	4 MB	512 kB	512 kB	-
EEPROM	-	-	-	4 kB	4 kB	4 kB
Extern	SD / MMC	SD / MMC	SD / MMC	-	-	-
Connectors						
Ethernet	10/100BaseT	10/100BaseT Auto-MDIX	10/100BaseT	10/100BaseT	10/100BaseT	10BaseT
RS-232	4-Wire 9-pin DTE	8-Wire 9-pin DTE	8-Wire 9-pin DTE	4-Wire 9-pin DCE	4-Wire 9-pin DCE	2-Wire 9-pin DCE
RS-485	-	-	2-Wire	-	-	-
USB device	12 Mb : 1	12 Mb : 1	-	-	-	-
USB host	-	12 Mb : 1	-	-	-	-
Expansion port						
Memory bus	Full	64 k x 8	CPLD I/O	11 k x 8	11 k x 8	31 k x 8
Digital I/O	3.3 / 5 V : 16	3.3 V : 20	3.3 V : 17	5 V : 20	5 V : 20	5 V : 21
CPLD I/O	-	-	3.3 / 5 V : 38	-	-	-
Analog in	4 x 10 bit	2 x 10 bit	-	8 x 10 bit	8 x 10 bit	8 x 10 bit
PWM	3	2	2	2	2	2
UARTs	3	2	2	2	2	2
SPI	1	1	Software	1	1	1
TWI (I2C)	1	1	Software	1	1	1
SSC	1	1	-	-	-	-

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Other peripherals						
Real time clock	DLC backup	DLC backup	DLC backup	Software	Software	Software
Watchdog	Yes	Yes	Yes	Yes	Yes	Yes
Audio decoder	MP3 Ogg Vorbis and more	-	-	-	-	-
Audio encoder	Ogg Vorbis	-	-	-	-	-
Image sensor	-	2048 x 2048	-	-	-	-
Programming / debugging interface						
SPI	-	-	-	-	-	10-pin
JTAG	20-pin	20-pin	10-pin	10-pin	10-pin	10-pol
Recommended programmer	USB cable	USB cable	Turtelizer 2	SP Duo 2	SP Duo 2	SP Duo 2
Recommended debugger	Any 20-pin ARM JTAG	Any 20-pin ARM JTAG	Turtelizer 2	AVR JTAG ICE	AVR JTAG ICE	AVR JTAG ICE
Power supply						
2.1mm barrel connector	5 – 24 V	5 – 24 V	5 – 24 V	9 – 12 V	9 – 12 V	9 – 12 V
USB	-	Yes	-	-	-	-
PoE	-	802.3 af	-	-	-	-
Max. consumption			1.2 W	3.2 W	3.2 W	1 W
Fuse protection	0.5 A	0.5 A	0.5 A	1 A	1 A	1 A
Environmental						
Operating temperature	0 bis 70 °C 32 bis 158 °F	0 bis 70 °C 32 bis 158 °F	0 bis 70 °C 32 bis 158 °F	-40 bis +85 °C -40 bis 185 °F	-40 bis +85 °C -40 bis 185 °F	0 bis 70 °C 32 bis 158 °F



egnite GmbH
Erinstrasse 9
44575 Castrop-Rauxel
Germany

Phone +49(0) 23 05-44 12 56
Fax +49(0) 23 05-44 14 87
info@egnite.de

www.egnite.de
www.ethernut.de

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