

# FPGA IP Cores (Wishbone)

Product Name	Functional Description	Logic Elements	I/O Pin Count min - max	Software Support
<b>16Z001_SMB</b>	I <sup>2</sup> C Controller	600	2 – 2	VxWorks, Linux 2.4.x driver on request, OS-9 driver on request
<b>16Z014_PCI</b>	PCI to Wishbone Interface	800	50 – 53	No software required
<b>16Z016_IDE</b>	IDE UDMA Controller	1500	30 – 30	Included in MontaVista Linux BSP EM4A, EM3/A Included in SYSGO ELinOS BSP EM3/A
<b>16Z023_IDE</b>	IDE Controller	120	28 – 34	ELinOS, VxWorks, QNX, OS-9
<b>16Z024_SRAM</b>	SRAM Controller	110 - 280	26 – 60	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z025_UART</b>	1-4 UARTs	700 – 1800	3 – 33	MENMON, VxWorks, OS-9, Linux, QNX
<b>16Z029_CAN</b>	CAN Controller	2000	2 – 2	Windows, Linux, VxWorks, QNX, OS-9 (CanOpen and CAN Layer 2)
<b>16Z031_SPI</b>	SPI Controller for Touch Controller	130	5 – 5	Included in MENMON for EM1/A, EM1N, EM3/A, EM4N Included in VxWorks BSPs EM1/A, EM1N, EM3/A, EM4N Included in OS-9 BSP EM4N
<b>16Z034_GPIO</b>	GPIO Controller (Input and Output)	250	1 – 8	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z037_GPIO</b>	8-Bit Digital I/O	120	4 – 4	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z042_LPC</b>	LPC to Wishbone Bridge	260	13	No software required
<b>16Z043_SDRAM</b>	SDRAM Controller	1200	38 – 57	No software required
<b>16Z044_DISP</b>	Display Controller 1280x1024, 1024x800, 800x600, 640x480	800	20 – 48	Windows, Linux, VxWorks, WindML 3.x, 4.x
<b>16Z045_FLASH</b>	Flash Interface	80	32 – 41	Flash-Tool 13Z100-60/70/91 (VxWorks, W2k/XP, Linux)
<b>16Z048_ISA</b>	Wishbone to ISA Interface	245	48 – 66	No software required
<b>16Z049_TMR</b>	8254-Compatible Counter	3300	3 – 9	n/a
<b>16Z050_BIO</b>	BIOC – Binary I/O Controller	600	4 – ..	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z052_GIRQ</b>	Global Interrupt Controller	100	1 – 64	Special support for VxWorks planned – no software required for other operating systems

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<b>16Z055_HDLC</b>	Single channel HDLC Controller	1050	6	Linux, QNX
<b>16Z056_SPI</b>	SPI Controller	200 typ.	4	No software required
<b>16Z057_UART</b>	DOS-Compatible UART	1800	9 – 33	DOS, Windows, Linux, VxWorks
<b>16Z058_SRAM</b>	SRAM over SPI Interface	245	4 – 4	No software required
<b>16Z061_PWM</b>	PWM – Pulse Width Modulation	80	1 – 15	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z066_MMIO</b>	Wishbone to M-Module Bridge with Registers	300	52 - 70	No software required
<b>16Z069_RST</b>	Reset Controller	204	variable	No software required
<b>16Z070_IDEDISK</b>	IDE to NAND Interface	4200	14	MENMON, Windows, Linux, VxWorks, OS-9
<b>16Z072_OWBC</b>	One Wire Bus Controller	700	1 - 2	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z073_QDEC</b>	Quadrature Decoder	100	2 - 3	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z075_SPEED</b>	Frequency Counter	122	1	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z076_QSPI</b>	QSPI Interface	482	4 - 7	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z079_ANYBUS</b>	Anybus Interface	1900	40	No software required
<b>16Z082_IMPULSE</b>	Impulse Counter with Programmable Debouncer	131	1	Windows, Linux, VxWorks, QNX, OS-9
<b>16Z083_MM2WB</b>	M-Module to Wishbone Interface	93	22-47	No software required
<b>16Z087_ETH</b>	Ethernet Controller	3100 - 3400	14 - 18	Linux, VxWorks
<b>16Z123_IDENHS</b>	IDE Controller	120	28-34	ELinOS, VxWorks, QNX, OS-9
<b>16Z125_UART</b>	1-4 UARTs	1800	2-33	Linux, VxWorks