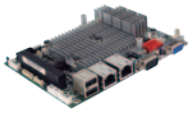
3.5″ WAFER Selection Guide



Model Name	WAFER-BW	WAFER-BTW2	WAFER-ULT2/ULT-i1	WAFER-BT-i1	WAFER-KBN-i1	WAFER-CV-D25502/ N26002
CPU Socket	On board	On board	On board	On board	On board	On board
CPU Type	Intel® Pentium®/Celeron® SoC	Intel® Atom™/Celeron® SoC	Intel® Mobile ULT processor	Intel® Atom™/Celeron® SoC	AMD® Embedded G-Series SoC	Intel® Atom™ D2550 1.86GHz Intel® Atom™ N2600 1.6GHz
Chipset	Intel® Pentium®/Celeron® SoC	Intel® Atom™/Celeron® SoC	Intel® Lynx Point SoC	Intel® Atom™/Celeron® on-board SoC	AMD® Embedded G-Series SoC	Intel® NM10
Memory	1 x 204-pin 1333/1600 MHz single-channel DDR3L SDRAM unbuffered SO-DIMM slot (system max. 8 GB)	4 GB solder-down 1066/1333 MHz DDR3L memory (for E3845) 2 GB solder-down 1066/1333 MHz DDR3L memory (for E3825)	2 x 204-pin 1600/1333 MHz dual-channel DDR3L SO-DIMMs (system max. 16 GB)	1 x 204-pin 1066/1333 MHz dual-channel DDR3L SO-DIMMs (system max. 8 GB)	1 x 204-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SO-DIMM (system max. 8 GB)	On-board 2 GB 1066 MHz DDR3 SDRAM
Display Interface	Triple independent display 2 x HDMI 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual independent dispaly 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA 1 x 18/24-bit dual-channel LVDS 1 x iDP interface	Dual display supported 1 x VGA integrated in Intel® CPU 1 x Single-channel 18-bit (N2600)/24-bit LVDS2 (D2550)
Ethernet	LAN1: Realtek RTL8111GN controller LAN2: Realtek RTL8111GN controller	LAN1: Intel® I210-IT PCIe controller LAN2: Intel® I210-IT PCIe controller	LAN1: Intel® I218LM PHY with Intel® AMT 9.0 support LAN2: Intel® I210-AT PCIe GbE controller	LAN1: Intel® I210-AT PCIe controller with NCSI support LAN2: Intel® I211-AT PCIe controller	LAN1: Intel® I210-AT PCIe controller with NCSI support LAN2: Intel® I211-AT PCIe controller	Dual LAN: Realtek RTL8111E controllers
iRIS Remote Management Module	N/A	N/A	1 x iRIS-1010 slot	1 x iRIS-1010 slot	1 x iRIS-1010 slot	N/A
I/O Interface	1 x PS/2 KB/MS 2 x RS-232/422/485 2 x USB 3.0 4 x RS-232 4 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x USB 3.0 3 x RS-232 6 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x USB 2.0 2 x USB 3.0 3 x RS-232	1 x PS/2 KB/MS 1 x RS-422/485 1 x USB 3.0 3 x RS-232 5 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 2 x USB 3.0 3 x RS-232 4 x USB 2.0	1 x PS/2 KB/MS 1 x RS-422/485 4 x USB 2.0 5 x RS-232
Drive Interface	2 x SATA 6G/s with 5V SATA power connector (no RAID) 1 x 8 GB eMMC (optional)	2 x SATA 3Gb/s with 5V SATA power connector (no RAID) 1 x 4 GB on-borad SSD (optional) 1 x microSD 1 x mSATA	2 x SATA 6Gb/s with 5V power connector	2 x SATA 3Gb/s with 5V SATA power connector (no RAID)	2 x SATA 6G/s with 5V SATA power connector 1 x mSATA	2 x SATA 3Gb/s or 1 x SATA 3Gb/s + 1 x mSATA
Audio	Realtek ALC662 HD Audio codec					
Digital I/O	8-bit digital I/O (4-bit input / 4-bit output)					
Power Consumption	12V@1.52A (Intel® Pentium® processor N3710 with 8 GB 1600MHz DDR3L memory)	12V@1.32A (Intel® Atom™ processor E3845 with on-board 2 GB 1333 MHz DDR3L memory)	12V@2.72A (Intel® Core™ i5-4300U CPU with two 8 GB 1600 MHz DDR3 memory)	12V@1.45A (Intel® Celeron® Processor J1900 CPU with one 8 GB 1333 MHz DDR3L memory)	12V@2.12A (AMD GX-415GA 1.5GHz CPU with 1333 MHz 4 GB DDR3 memory)	12V@1.19A (1.86GHz Intel® D2550 with on-board 1066 MHz 1 GB SDRAM) 12V@0.95A (1.6GHz Intel N2600 with on-board 1066 MHz 1 GB SDRAM)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset					
Operating Environment	Temperage Range: -20°C ~ 60°C (-4°F~140°F) Relative Humidity: 5% ~ 95%, non-condensing		Temperature Range: -10°C ~ 60°C (14°F~140°F) Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: -20°C ~ 60°C Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: 0°C ~ 60°C (32°F~140°F) Relative Humidity: 5% ~ 95% non-condensing	-20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D2550 processor -20°C ~ 70°C with free air, -20°C ~ 75°C with force air for N2600 processor Relative Humidity: 5% ~ 95%, non-condensing
Expansion Slot	2 x Full/Half-size PCIe Mini card slot (one with SIM holder)	2 x Full-size PCIe Mini card slot (one with SIM holder)	1 x Full-size PCIe Mini card slot with mSATA support	1 x Full-size PCIe Mini card slot (supports mSATA co-lay STA port 2)	1 x Full-size PCIe Mini card slot (supports mSATA co-lay SATA port 2)	1 x Full/Half-size PCIe Mini card slot with mSATA support 1 x PCI-104 slot supports PCI singal
Recommended CPU Cooler	Heat Spreader	Heatsink	Heat Spreader	N/A	GX-415GA (with hearsink) GX-210HA (with cooler)	Specific Heatsink

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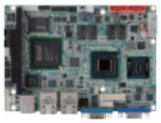

Model Name	WAFER-CV-D25501/ N26001	WAFER-PV-N4552/D5252	WAFER-945GSE-R20	WAFER-945GSE2-R20	WAFER-LX-R12	WAFER-LX2-R12
CPU Socket	On board	On board	On board	On board	On board	On board
CPU Type	Intel® Atom™ D2550 1.86GHz Intel® Atom™ N2600 1.6GHz	Intel® Atom™ D525 1.8GHz Intel® Atom™ N455 1.66GHz	Intel® Atom™ N270 1.6GHz	Intel® Atom™ N270 1.6GHz	AMD Geode™ LX800	AMD Geode™ LX800
Chipset	NM10	Intel® ICH8M	Intel® 945GSE + ICH7M	Intel® 945GSE + ICH7M	AMD Geode™ LX800 + AMD CS5536	AMD Geode™ LX800 + AMD CS5536
Memory	1 x 204-pin 1066 MHz 4 GB (max.) DDR3/DDR3L (1.35V) SO-DIMM (D2550) 1 x 204-pin 800 MHz 2 GB (max.) DDR3/DDR3L (1.35V) SO-DIMM (N2600)	1 x 204-pin 800 MHz 4 GB (max.) DDR3 SO-DIMM (D525/ D425) 1 x 204-pin 800 MHz 2 GB (max.) DDR3 SO-DIMM (N455)	1 x 200-pin 400/533 MHz. 2 GB (max.) DDR2 SO-DIMM	On-board 1 GB DDR2 SDRAM	1 x 200-pin 333/400 MHz. 1 GB (max.) DDR SO-DIMM	1 x 200-pin 400 MHz. 1 GB (max.) DDR SO-DIMM
Display Interface	Dual display supported 1 x VGA 1 x Single-channel 18-bit (N2600)/24-bit LVDS2 (D2550) 1 x 24-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x 18-bit single-channel LVDS	Dual display supported 1 x VGA 1 x 18-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x 18-bit dual-channel LVDS	Dual display supported 1 x VGA 1 x 18-bit single-channel LVDS 1 x 24-bit TTL	Dual display supported 1 x VGA 1 x 18-bit single-channel LVDS 1 x 24-bit TTL
Ethernet	Dual LAN: Realtek RTL8111E controllers	Dual LAN: Realtek RTL8111E controllers			Dual LAN: 10/100Mbps RTL8100C Ethernet Controller	LAN1: 10/100Mbps RTL8100C Ethernet Controller
iRIS Remote Management Module	N/A					
I/O Interface	1 x KB/MS 1 x RS-422/485 3 x RS-232 6 x USB 2.0	1 x KB/MS 1 x RS-232/422/485 5 x RS-232 8 x USB 2.0	1 x PS2 for KB/MS 1 x RS-232/422/485 5 x RS-232 6 x USB 2.0	1 x PS2 for KB/MS 1 x RS-232 1 x RS-232/422/485 6 x USB 2.0	1 x LPT 1 x PS/2 for KB/MS 1 x RS-422/485 2 x RS-232 4 x USB 2.0	1 x RS-232/422/485 4 x USB 2.0 7 x RS-232
Drive Interface	2 x SATA 3Gb/s 1 x mSATA	2 x SATA 3Gb/s 1 x CF Type II	2 x SATA 1.5Gb/s 1 x CF Type II	2 x SATA 1.5Gb/s 1 x CF Type II	2 x SATA 1.5Gb/s RAID 1 x IDE 1 x CF Type II	1 x IDE 1 x CF Type II
Audio	Realtek ALC662 HD Audio codec				Realtek ALC203 with AC'97 codec	
Digital I/O	8-bit digital I/O (4-bit input / 4-bit output)					
Power Consumption	12V@1.53A (1.86GHz Intel® D2550 with 1 GB DDR3 1066 MHz) 12V@1.15A (1.6GHz Intel® N2600 with 1 GB DDR3 1066 MHz)	12V@1.79A (Intel® Atom™ D525 with 2 GB 1066 MHz DDR3)	5V@2.94A (Intel® Atom™ N270 1.6GHz, 2 GB DDR2 533 MHz)	5V@2.36A (Intel® Atom™ N270 1.6GHz, 1 GB DDR2 533 MHz)	5V@1.53A (AMD Geode™ LX 800 1 GB 400 MHz DDR)	5V@1.33A (AMD Geode™ LX800 512MB 333 MHz DDR)
Watchdog Timer	Software programmable and supports 1~255 sec. system reset					
Operating Environment	-20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D2550 processor -20°C ~ 70°C with free air, -20°C ~ 75°C with force air for N2600 processor Relative Humidity: 5% ~ 95%, non-condensing	Temperature Range: -10°C ~ 60°C (14°F~140°F) Relative Humidity: 5% ~ 95% non-condensing	Temperature Range: 0°C ~ 60°C, -20°C ~ 70°C (W), -40°C ~ 85°C (W2) Relative Humidity: 5% ~ 95% non- condensing	Temperature Range: 0°C ~ 60°C, -20°C ~ 70°C (W) Relative Humidity: 5% ~ 95% non- condensing	Temperature Range: 0°C ~ 60°C (32°F~140°F) Relative Humidity: 5% ~ 95% non- condensing	
Expansion Slot	1 x PCIe Mini card slot	1 x PCIe Mini card slot	1 x PCIe Mini card slot	1 x PC/104	1 x PC/104	1 x PC/104
Recommended CPU Cooler	Heat Spreader	Heat Spreader	Heat Spreader	Heatsink	Heatsink	Heatsink