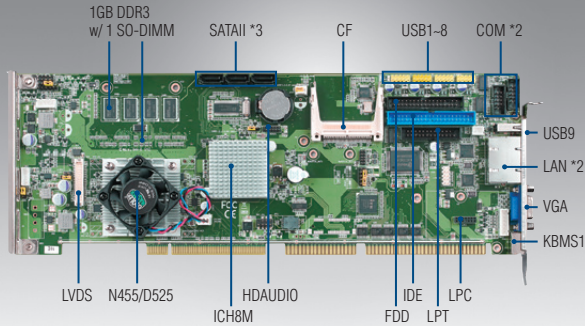


PCA-6013

Intel® Atom™ N455/D525 SBC with
VGA/Dual GbE LAN

NEW



Specifications

Processor System	CPU	Intel Atom N455	Intel Atom D525				
	Speed	1.66 GHz	1.8 GHz				
	L2 Cache	512 KB	1 MB				
	Chipset	Intel ICH8M					
	BIOS	AMI 16Mb SPI Flash					
Bus	PCI	32-bit/33 MHz PCI					
	ISA	HISA (ISA High Drive)					
Memory	Technology	Dual channel DDR3 800 MHz DIMMs					
	Max. Cap.	2 GB	3 GB				
	Layout	1G on-board and 204 pin SODIMM x1					
Graphics	Controller	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant					
	VRAM	Shared with system memory up to 224 MB					
	Video Interface	15-pin VGA D-sub connector x1/LVDS pin header x 1 (G2 SKU only, supports single channel 18-bit LVDS)					
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for Intel Atom N455 VG SKU, up to 2048 x 1536 @ 60 Hz for Atom D525 G2 SKU LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 (G2 SKU only)					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	LAN1: Intel 82567V, LAN2: Intel 82583V					
	Connector	RJ45 with LED Connector x2 (G2 SKU), x1 (VG SKU)					
SATA 2	Max. Transfer Rate	300 MB/s					
	Channel	3					
EIDE	Mode	ATA 100/66/33					
	Channel	1 (Supports up to 2 IDE devices; Master device is alternative for CF socket)					
I/O Interface	USB 2.0	8 ports by pin header (VG SKU); 8 ports by pin header and 1 port on bracket I/O (G2 SKU)					
	Serial	2 RS-232 onboard pin-headers, plus four ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)					
	Parallel	1 (EPP/ECP)					
	GPIO	1 (8-bit)					
	FDD	1					
	PS/2	1 (for mouse and keyboard, Y cable is included in the package)					
Watchdog Timer	Output	System reset					
	Interval	Programmable, 1~255 sec					
Miscellaneous	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)					
	Configuration	Intel Atom D525 CPU 1.8 GHz + DDR3 1333 2G x2 SODIMM; Storage: One SATA HDD					
Power Requirement	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V
	Current	0.44 A	3 A	0 A	0.15 A	0 A	0 A
	Configuration	Atom N455 CPU 1.66 GHz + DDR3 1333 1G x2 SODIMM; Storage: One SATA HDD					
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V
	Current	0.16 A	2.1 A	0 A	0.13 A	0 A	0 A
	Environment		Operating			Non-Operating	
Physical	Dimensions	0 ~ 60° C (32 ~ 140° F)			-40 ~ 85° C and 60° C @ 95% RH Non-Condensing		
		(Operational humidity: 40° C @ 85% RH Non-Condensing)					

Features

- Ultra low power, fanless N455 CPU and maximum 2 GB DDR3 800 memory (Only for N SKU)
- Dual core high performance Intel® Atom™ D525 processor and maximum 3 GB DDR3 800 memory (Only for D SKU)
- Memory anti-vibration through 1GB on board memory and SO-DIMM mounting holes
- IE61000-4-5 LV.3 anti-surge certificated rear I/O: LAN, COM ports and optional module COM-485SP w/ 4x RS-485

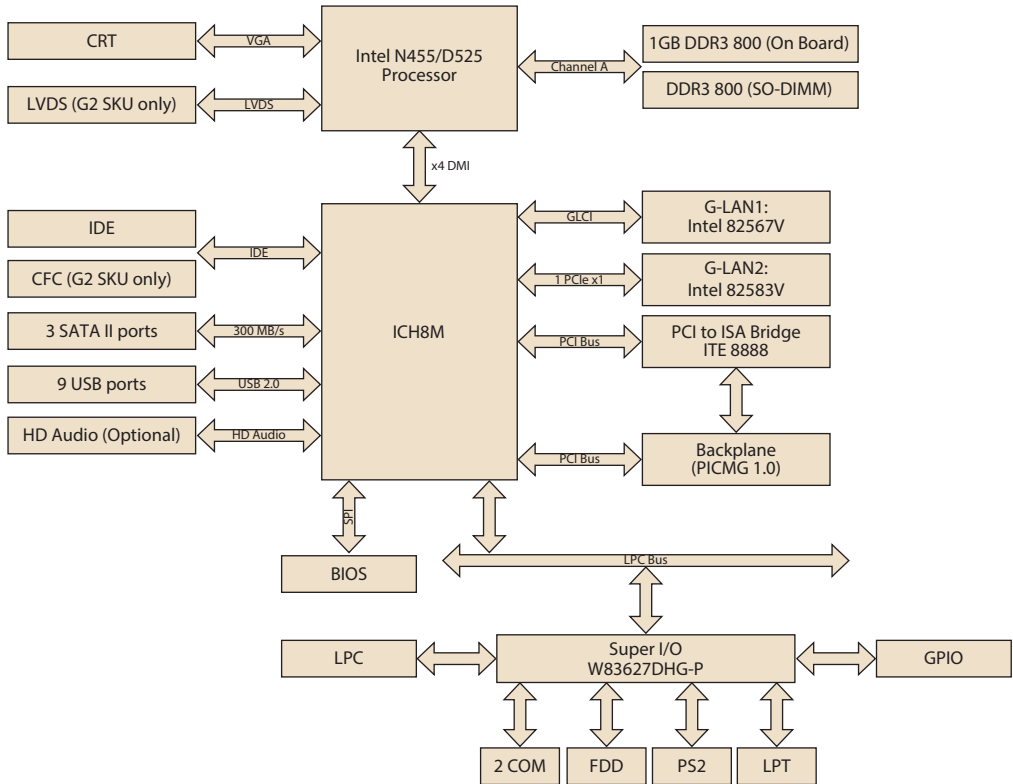
Software APIs:

- Watchdog
- H/W Monitor
- Brightness
- GPIO
- Backlight On/Off
- CPU Speed
- System Throttling

Utilities:

- BIOS flash
- Monitoring
- Flash Lock
- Embedded Security ID
- eSOS (Requires BIOS Customization)

Block Diagram



Ordering Information

P/N	CPU	Fan-Less	RAM	LAN	VGA	LVDS	FDD	SATA	USB	CF
PCA-6013VG-00A1E	Intel® Atom™ N455	Yes	1G onboard + 1 SO-DIMM to 2G	Single GbE LAN	Yes	-	1	3	8	-
PCA-6013G2-00A1E	Intel® Atom™ D525	No	1G onboard + 1 SO-DIMM to 3G	Dual GbE LAN	Yes	Yes	1	3	9	1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	Audio extension module
PCA-COM485-00A1E	4 x RS-422/RS-485 COM module
1701090401	Single COM cable kit
1701092300	Dual COM port cable kit

Packing List

Part Number	Description	Quantity
1960046526N001	CPU Cooler for Atom D525CPU (Only for G2 SKU)	x1
1701400452	IDE HDD cable	x 1
1700008461	USB cable with 4 ports	x 1
1703150102	Serial ATA HDD power cable	x 2
1700003194	Serial ATA HDD data cable	x 2
1700060202	Y-cable for PS/2 mouse & keyboard	x 1
1701260305	Printer + COM cable	x 1
9689000068	Jumper pack	x 1
-	Warranty card	x 1
-	Startup manual	x 1
-	CD with driver utility and manual (in PDF format)	x 1

Bracket View



PCA-6013VG-00A1E



PCA-6013G2-00A1E



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