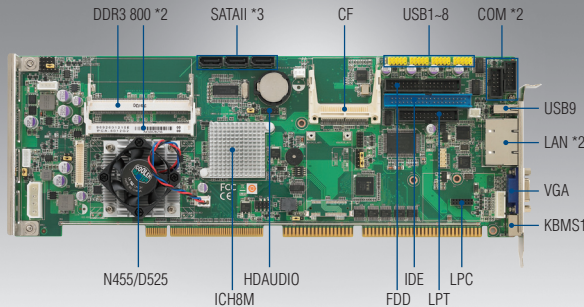


PCA-6012

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

NEW



Features

- Ultra low power, fanless N455 CPU and maximum 2 GB DDR3 800 memory (Only for N SKU)
- Dual core high performance D525 CPU and maximum 4 GB DDR3 800 memory (Only for D SKU)
- Optional module for 4 x RS-485 w/ auto-flow control
- Supports embedded software APIs and utilities

Software APIs:

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

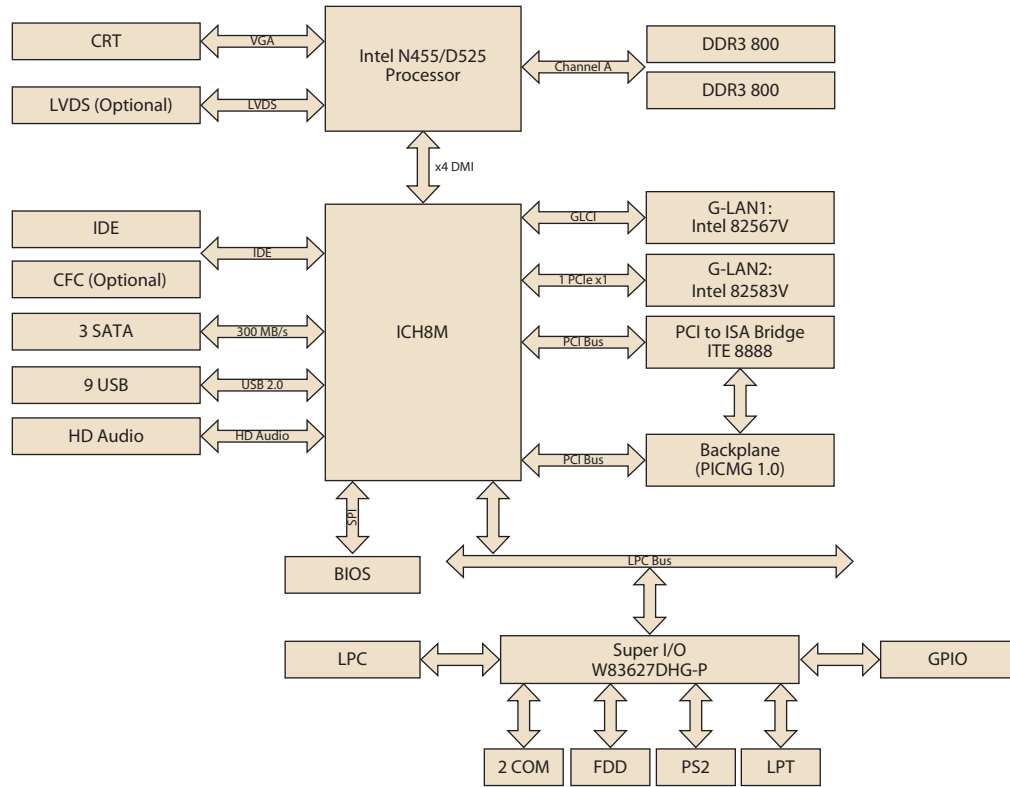
Utilities:

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

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					
	Max. Cap.	max 2 GB	max 4 GB				
	Socket	204 pin SODIMM x 2					
Graphics	Controller	Embedded Gen3.5+ GFX Core technology, Direct X 9/Pixel Shader 2.0 compliant					
	VRAM	Shared with 224 MB system memory					
	Video Interface	15-pin VGA D-sub connector x1/Optional LVDS pin header x 1 (supports single channel 18-bit LVDS)					
	Video Output	VGA: Supports up to SXGA 1400 x 1050 @ 60 Hz for Atom™ N455 VG SKU, up to 2048 x 1536 @ 60 Hz for Atom™ D525 G2 SKU Optional LVDS: Supports 18-bit single channel and up to WXGA 1366 x 768 or 1280 x 800 for both VG and G2 SKUs					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	LAN1: Intel 82567V, LAN2: Intel 82583V					
	Connector	RJ45 with LED Connector x2					
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	Two 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, a Y cable is included in the package)					
Watchdog Timer	Output	System reset					
	Interval	Programmable, 1-255 sec/min					
Miscellaneous	Audio Output	Intel High Definition audio interface (requires an audio extension module, P/N: PCA-AUDIO-HDA1E)					
	Configuration	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	3.71 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	2.81 A	0 A	0.13 A	0 A	0 A
	Environment	Operating	Non-Operating				
Physical	Dimensions	0 - 60° C (32 - 140° F)					
		(Operational humidity: 40° C @ 85% RH Non-Condensing)					
		-40 ~ 85° C and 60° C @ 95% RH Non-Condensing					

Board Diagram



Ordering Information

P/N	CPU	Fan-Less	RAM	LAN	VGA	LVDS	FDD	SATA	USB	CF
PCA-6012VG-00A1E	Atom N455	Yes	Socket to 2G	Single GbE LAN	Yes	Optional	1	3	8	Optional
PCA-6012G2-00A1E	Atom D525	No	Socket to 4G	Dual GbE LAN	Yes	Optional	1	3	9	1

Optional Accessories

Part Number	Description
PCA-AUDIO-HDA1E	Audio extension module
1701090401	Single COM Cable Kitt
PCA-COM485-00A1E	4 x RS-422/RS-485 COM module

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
2002721020	User note for full-size CPU card	x 1
-	Warranty card	x 1
-	Startup manual	x 1
-	CD with driver utility and manual (in PDF format)	x 1

Bracket View



PCA-6012VG-00A1E



PCA-6012G2-00A1E