



**Embedded Design
and
I/O Solutions**

2009 Short Form Catalog



ALPHI TECHNOLOGY CORPORATION

Alphi Technology

Alphi Technology is a leader in design, manufacturing and support of industrial board level and system level solutions.

We have been customer driven for over 20 years providing the highest quality and performances products to Boeing, Honeywell, Bell Textron, NASA, Northrop Grumman, Spectrum Astro, Tactical Displays, Lockheed Martin, Westinghouse, and countless others companies.

Our flexibility, expertise and competence, enable us to provide boards and system integration in record time with the highest level of reliability at very reasonable budget. Whether your needs are for the latest peripheral boards or to replace obsolete systems, we have the perfect fit.

Industry Pack Carrier

Industry Packs offer a very economical and effective way to add the highest density of I/O to your system. Combining different IP types on one carrier simplifies the design of low-cost custom I/O board.

Alphi has one of the largest choices of IP modules, IP carriers available for all major buses, adapted to industrial process control, medical equipment, traffic control, telecommunication, semiconductor equipments, military, and aerospace application. It is also a reliable source for many IP products that have become obsolete by their original manufacturer.

We also offer transition modules, termination panels, cable kits and cable adapters, software drivers, detailed manuals and data sheets for each IP module.

Analog I/O

An extensive choice of 16 bits Analog Inputs/Outputs boards designed for any type of Bus (PCI, CPCI, IP, VME...). Alphi Analog I/O's offer from 8 to 48 channels, single-ended or differential inputs, high-speed DMA transfers, simultaneous sampling.

Multi-Function Boards

Intelligent DSP Based MFIO Board with powerful combination of 16 Bits A/D converters, Analog channels and general purpose Digital I/O. Up to 32 Single-ended channels or 16 Differential analog inputs. Proposed in 3U & 6U form factor, PCI, CPCI, IP, VME.

Serial I/O

The largest offering in Serial I/O featuring from 4 and up to 16 channels, RS-232, RS-422, RS-485, Asynchronous and Synchronous Mode, 512 Kbaud, FIFO Buffers.

FPGA

The FPGA technology lets you develop custom digital or serial I/O boards quickly and inexpensively.

Alphi supports a large variety of FPGAs. Depending on the board the output lines are differential EIA-485 lines, LVTTTL or TTL outputs, LVDS I/O lines or a combination.

Digital I/O

Chose from an extended selection of Digital I/O Modules, from 18 to 48 channels, featuring 0-60 VDC range, bi-directional, Intelligent FPGA solution, 16 bit counter timers.

Servo Controller and Signal Conditioning

Selection of complete multi channel data acquisition systems and digital servo control module for high performance closed loop applications. Entirely configurable, combinable modules based on VXI, VME or PCI.

MIL-1553

Alphi supports the MIL-1553-B products of DDC Mini-ACE and Enhanced Mini-ACE, and UTM SUMMIT. We offer one of the widest range of boards at very competitive prices.

Intelligent Industry Pack Carrier

Part #	Bus type	IP Site	Speed 8/32Mhz	Debug Port RS-232	RS-422	DSP	I/O		Note
							Front	Rear	
CPCI-IPC-6713 NEW	CPCI 3U	2	√	√		C6713	√		3.3/5 PCI
CPCI-IPC	CPCI 3U	2	√	√		C31	√		5V PCI
CPCI-DUALIPC	CPCI 6U	4	√	√		2xC31	√	√	5V PCI
CPCI-QIPC	CPCI 6U	4	√	√	√	C31	√	√	5V PCI
PCI-4pack	PCI	4	√	√	√	C31	√		5V PCI
PCI-4IPM	PCI	4	√	√	√	C32	√		3.3/5 PCI
PCI-IPC	PCI	2	√	√		C31	√		5V PCI
PCI-6713-4IP NEW	PCI	4	√	√		C6713	√		3.3/5 PCI
PCI-6713-2IP	PCI	2	√	√		C6713	√		3.3/5 PCI

Slave Industry Pack Carrier

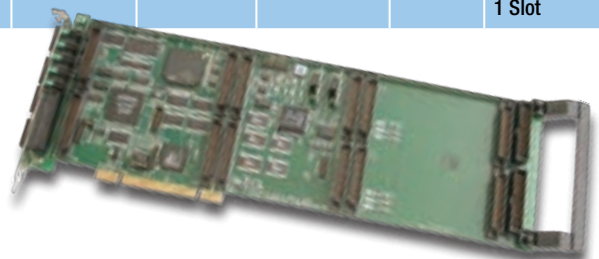
CPCI-SIP	CPCI 3U	2	√				√		5V PCI
CPCI-SIP-RP	CPCI 3U	2	√					√	5V PCI
CPCI-SIP-PLX	CPCI 3U	2	√				√		3.3/5 PCI
CPCI-4SIP	CPCI 6U	4	√				√	√	3.3/5 PCI
PCI-4SIP NEW	PCI	4	√				√		3.3/5 PCI
PCI-2SIP NEW	PCI	2	√				√		3.3/5 PCI
VME-4SIP	VME 6U	4	√				√	P2	A32/24:D16
VME-5SIP	VME 6U	5	√				√		A32/24:D16

Specialized Carrier

CPCI => PMC	CPCI to PMC carrier								1 Slot
CPCle => PMC NEW	CPCI express to PMC carrier								1 Slot
PCI => PMC	PCI to PMC carrier								1 Slot
PCle => PMC NEW	PCI express to PMC carrier								1 Slot

* Extended Temperature Available

** Software Drivers Available: VxWorks, LabView, Linux, Other



ANALOG I/O A/D

Part #	Functionality	Bus type	A/D # ch.	#Bits	Rate	DSP	Debug Port	Input		Voltage Range
					KSPS			SE	Diff	
CPCI-AD16	A/D	CPCI 3U	16	16	100	C31		√		±10V / ±1V / ±0.1V / ±0.01V
CPCI-AD8	A/D	CPCI 3U	8	16	200	C32	√		√	±10V / ±5V / ±2.5V / ±1.25V
CPCI-AD16D	A/D	CPCI 3U	16	16	200	C32	√		√	±10V / ±5V / ±2.5V / ±1.25V
PMC-AD8	A/D	PMC	8	16	200	C32	√		√	±10V / ±5V / ±2.5V / ±1.25V
PMC-AD250	A/D	PMC	16	16	250				√	±10V
PCI-AD16	A/D	PCI	16	16	100	C31	√		√	±10V / ±1V / ±0.1V / ±0.01V
PCI-AD32	A/D	PCI	32	16	250	C6713	√		√	±10V / ±1V
IP-AD8100	A/D	IP	8	16	100	FIFO		√		±10V
IP-AD8100-D	A/D	IP	8	16	100	FIFO			√	±10V / ±1V
IP-AD8250	A/D	IP	8	16	250	FIFO		√		±10V
IP-AD8250-D	A/D	IP	8	16	250	FIFO			√	±10V / ±1V
IP-AD4500	A/D	IP	4	16	500	FIFO			√	±10V / ±5V / ±2.5V
IP-AD250	A/D	IP	4	16	250	FIFO			√	±10V / ±5V / ±2.5V
IP-AD41meg	A/D	IP	4	16	1000	FIFO			√	±10V / ±5V / ±2.5V
IP-AD3216	A/D	IP	32/16	16	200	FIFO		√	√	±10V / ±5V / ±2.5V
IP-48AD	A/D	IP	48	16	250	FIFO		√		±10V / ±5V
IP-48ADM16 NEW		IP	48/24	16	1000	128K	SRAM	√	√	±10V / ±5V / ±2.5V / ±1.25V

D/A

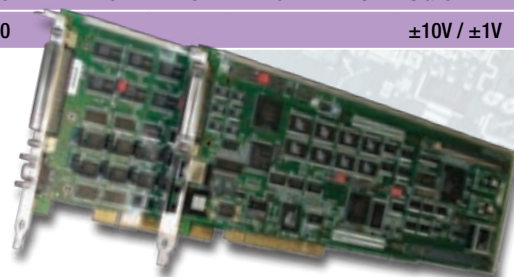
Part #	Functionality	Bus type	D/A # ch.	#Bits	Rate	Reference		Output Buf.	Mem	Voltage Range
					us	Int.	Ext.			
CPCI-DA8	D/A	CPCI 3U	8	16	10	√		√	256k	±10V
CPCI-DA16	D/A	CPCI 3U	16	16	10	√		√		±10V
PMC-DA816	D/A	PMC	8	16	10	√		√	128k	±10V
PMC-SoftDac-M NEW	D/A	PMC	16	16	2	√	√	√	512k	±10V / ±5V / ±2.5V / -2.5+7.5 0-5 / 0-10 Soft. Programmable
PCI-DA816	D/A	PCI	8	16	10	√		√	128k	±10V
PCI-SoftDac-M NEW	D/A	PCI	12,14,16	16	2	√	√	√	256k	±10V / ±5V / ±2.5V / -2.5+7.5 0-5 / 0-10 Soft. Programmable
IP-DAC816	D/A	IP	8	16	10	√				±10V
IP-fastDAC-8	D/A	IP	8	16	2	√	√	√		±10V, 4 Quadrant
IP-SoftDac	D/A	IP	16	16	2	√	√	√		±10V / ±5V / ±2.5V / -2.5+7.5 0-5 / 0-10 Soft. Programmable
IP-SoftDac-M NEW	D/A	IP	16	16	2	√	√	√	64k	±10V / ±5V / ±2.5V / -2.5+7.5 0-5 / 0-10 Soft. Programmable.
IP-48DAM16 NEW	D/A	IP	48	14,16	2	√	√	√	64k	±10V Gain & Offset error corr.

* Extended Temperature Available

** Software Drivers Available: VxWorks, LabView, Linux, Other

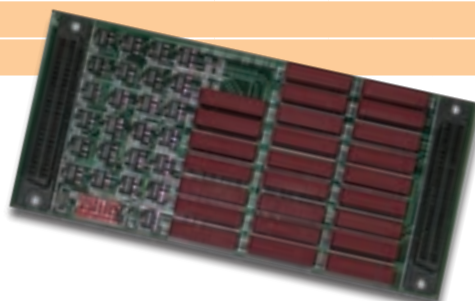
Multi Function Board (MFIO)

Part #	Functionality	Bus type	A/D # ch.	#Bits	Rate	D/A # ch.	#Bits	Rate	DIG I/O	DSP
					KSPS			us		
CPCI-MFIO-6713 NEW	A/D, D/A, I/O	CPCI 3U	8	16	250	8	16	2	16	TMS320C6713B
CPCI-MFIO	A/D, D/A, I/O	CPCI 6U	32	16	200	8	16	10	16	TMS320C31
CPCI-AD320	A/D, D/A, I/O	CPCI 6U	16	16	200	16	16	10	32	TMS320C32
PCI-MFIO-6713	A/D, D/A, I/O	PCI	16	16	500	16	16	2	48	TMS320C6713B
IP-Synchro	Syncro Resolver	IP	2 ch.	16						2V,11V, 90V
VME-MFIO	A/D, D/A, I/O	VME	16	16	250	16	16	10	48	Slave
VME-AD32D	A/D	VME	32	16	250					±10V / ±1V



Digital

Part #	Bus type	Functionality	I/O #	Interface							Note
				IN	Out	Bi Dir	Isolated	Counter	Timer	TTL	
CPCI-48IN	CPCI 3U	Input	48	√			√	√	√		5V PCI
CPCI-48OUT	CPCI 3U	Output	48		√		√	√	√		5V PCI
PCI-48IN	PCI	Input	48	√			√	√	√		5V PCI
PCI-48OUT	PCI	Output	48		√		√	√	√		5V PCI
IP-CIO32	IP	Input/Output	32			√		√	√	√	
IP-DIO32	IP	Input/Output 0-48 V	32			√					Threshold
IP-CounterTimer	IP	Input/Output	32			√		√	√	√	
IP-optoIN	IP	Input	18	√			√	√	√		
IP-optoOUT	IP	Output	18		√		√	√	√		
IP-Relay NEW	IP	Relay	25								SPST
IP-Resistor NEW	IP	Resistor	128								1-128kOhm



Graphics

PVGA-1722	PMC	33/66 MHz 200 MHz	XGA RAMDAC	1280 24-bit	x LVDS	1024	S-video 8 Mbyte	Memory 18-bit	Memory LCD	Analog RGB
IP-LCD NEW	IP	Video/Graphic	VGA							RGB

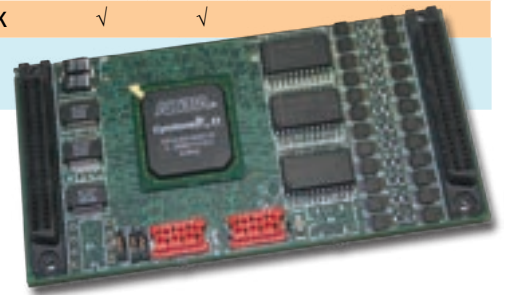
Transition modules

Multiples transition modues available. Call Alphi Technology Corp. 480-838-2428

Serial I/O

Part #	Bus type	Channel #	Interface			Baud Rate	Mode ASYNC	SYNC	DSP	Note
			RS-232	RS-422	RS-485					
CPCI-ISC8	CPCI 3U	8	√	√	√	115K	√	√	C31	5V PCI
CPCI-6713-ISC8 NEW	CPCI 3U	8	√	√	√	115K	√	√	C6713	3.3/5 PCI
CPCI-SCC16-6U	CPCI 6U	16	√	√	√	115K	√	√	C31	3.3/5 PCI
PCI-ISC8	PCI	8	√	√	√	115K	√	√	C31	5V PCI
PCI-6713-ISC8 NEW	PCI	8	√	√	√	115K	√	√	C6713	3.3/5 PCI
PSCC-1008E	PMC	8		√	√	6.25 Mbits	2.5 KV	Isolation	32-bit/33MHz	3.3/5 PMC
PSCC-1028	PMC	8	√						32-bit/33MHz	3.3/5 PMC
IP-SCC04A	IP	4	√			115K	√	√		
IP-SCC04B	IP	4		√	√	115K	√	√		

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FPGA

Part #	Bus type	Channel #	Interface			Term 100Ω	IN/OUT	User Prog.	Note	Target Chip
			TTL/LVTTL	LVDS	RS-485					
PMC-CYCLONE II NEW	PMC	68	√	√	√	√	√	√	Altera	EP2C20
PMC-VIRTEX	PMC	68	√	√	√	√	√	√	Xilinx	VIRTEX-2
IP-10K50E-PIO	IP	48	√		√	√	√	√	Altera	10K50E
IP-10K50E-LVDS	IP	48	√	√		√	√	√	Altera	10K50E
IP-10K100E-PIO	IP	48	√		√	√	√	√	Altera	10K100E
IP-10K100E-LVDS	IP	48	√	√		√	√	√	Altera	10K100E
IP-ALTERA	IP	48	√				√	√	Altera	10K20/30
IP-CYCLONE	IP	48	√	√	√	√	√	√	Altera	EP1C20
IP-FPGA	IP	48	√				√	√	Xilinx	XC4020
IP-SPARTAN	IP	48	√	√			√	√	Xilinx	XC2S300E
IP-CYCLONE II NEW	IP	48	√	√	√	√	√	√	Altera	EP2C20

* Extended Temperature Available
 ** Software Drivers Available: VxWorks, LabView, Linux, Other

Servo Controller and Signal Conditioning

Part #	Bus type	Channel #	Interface			Signal Conditioning	PGA	DIG. I/O		DSP	Note
			RS-232	RS-422	LVDT	Load cell		IN	OUT		
VDSP31	VXI	2/4or 8	√	√	√	√	√	32	32	TMS320CC31	Modular
VDSP431	VME	2	√	√	√	√	√	16	16	TMS320CC31	Dual-redundant
PCI 231 NEW	PCI	2	√	√	√	√	√	16	16	TMS320CC31	Dual-redundant

MIL-STD-1553 UTMC SUMMIT

Part #	Bus type	Channel #	Xfomer	Stub	SRAM	Ext. Temp	Note
				Short/Long			
CPCI-1553-1	CPCI 3U	1	√	√	64K	√	5V PCI
CPCI-1553-2	CPCI 3U	2	√	√	128K	√	5V PCI
CPCI-1553-1-6U	CPCI 6U	1	√	√	64K	√	5V PCI
CPCI-1553-2-6U	CPCI 6U	2	√	√	128K	√	5V PCI
PCI-1553	PCI	1	√	√	64K	√	5V PCI
PCI-1553-PLX	PCI	1	√	√	64K	√	3.3/5 PCI
PCI-1553-PLX-2 <i>NEW</i>	PCI	2	√	√	128K	√	3.3/5 PCI

PMC-1553-1	PMC	1	√	√	64K	√	5V PCI
PMC-1553-PLX	PMC	1	√	√	64K	√	3.3/5 PCI
PMC-1553-PLX-2 <i>NEW</i>	PMC	2	√	√	128K	√	3.3/5 PCI

IP-1553	IP	1	√	√	64K	√	
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VME-1553-4-SUMMIT	VME	4	√	√	256K	√	
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MIL-STD-1553 UTMC BCRTM

PCI-1553-BCRTM	PCI	1	√	√	64K	√	3.3/5 PCI
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COM-1553	VME	1	√	√	64K	√	
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MIL-STD-1553 DDC ACE

IP-1553-DDC	IP	1	√	√	64K	√	
PMC-1553-DDC1	PMC	1	√	√	64K	√	5V PCI
PMC-1553-DDC2	PMC	2	√	√	128K	√	5V PCI

MIL-STD-1553 DDC MINI ACE

IP-1553-DDC	IP	1	√	√	64K	√	
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MIL-STD-1553 DDC Enhanced MINI ACE

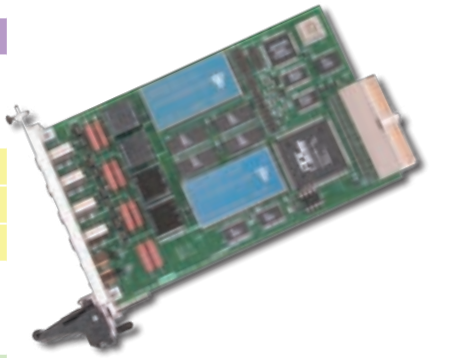
CPCI-1553-DDC1-6U	CPCI 6U	1	√	√	64K	√	5V PCI
CPCI-1553-DDC2-6U	CPCI 6U	2	√	√	128K	√	5V PCI

CPCI-1553-DDC1	CPCI 3U	1	√	√	64K	√	5V PCI
CPCI-1553-DDC2	CPCI 3U	2	√	√	128K	√	5V PCI

PCI-1553DDC-1	PCI	1	√	√	64K	√	5V PCI
PCI-1553DDC-2	PCI	2	√	√	128K	√	5V PCI

PCM-1553-DDC1	PCM	1	√	√	64K	√	5V PCI
PCM-1553-DDC2	PCM	2	√	√	128K	√	5V PCI

VME-1553-4-DDC	VME	4	√	√	256K	√	
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* Extended Temperature Available

** Software Drivers Available:
VxWorks, LabView, Linux, Other

The logo for ALPHI Technology Corporation features the word "ALPHI" in a large, bold, teal-colored font with a horizontal line pattern. To its right, the words "TECHNOLOGY CORPORATION" are written in a smaller, grey, sans-serif font. A thin horizontal line is positioned above the "TECHNOLOGY CORPORATION" text. The background of the logo area is white, with a dark blue curved shape on the left and a pixelated blue pattern at the bottom left.

ALPHI TECHNOLOGY CORPORATION

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