

DELTA TAU DATA SYSTEMS, INC.

11/20/95

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9036 Winnetka Ave., Northridge, CA 91324 PH: 818/998-2095 FX: 818/998-7807
PROGRAMMABLE MULTI-AXIS CARD FOR PC BUS (PMAC-PC) PRICING SCHEDULE

PMAC 2-Lite (Part # 400-302406-10x)

\$2,599.00

CALL AREA REPRESENTATIVE, DISTRIBUTOR OR FACTORY FOR OEM PRICING AND QUANTITY DISCOUNTS

List price is for a four-axis unit w/RS232/422, PC bus, 6 channels differential/single ended encoder inputs, 4 sets of flag inputs, 4 sets of 3 digital outputs for 8 18-bit DAC's and 4 pulse-and-direction outputs, or for 12 PWM half-bridge commands with deadtime; 40 MHz CPU, 128k x 24 zero-wait-state RAM with flash backup, PID+notch servo algorithm. 32-line I/O port; 8in 8out multiplexer port; MACRO ring interface port; display I/O port. Cables, mounting plate, and mating connectors are not provided.

Option	Description	Part No.	Quantity	Price	Total
SPECIAL	PMAC 2-Lite: No I/O or MACRO interface	402-602598-10x		2499.00	
1	Additional 4-axis capability	301-OPMAC2-OPT		599.00	
2	On-board dual-ported RAM	302-OPMAC2-OPT		395.00	
3,4	Not applicable	n/a		n/a	
5B	60 MHz CPU, zero wait-state RAM	3B5-OPMAC2-OPT		585.00	
6	Extended servo algorithm firmware option	306-OPMAC2-OPT		99.00	
7	Plate mounting for standalone applications	307-OPMAC2-OPT		49.00	
8A	High accuracy clock (19.6608MHz +/-15ppm)	3A8-OPMAC2-OPT		95.00	
9L	RS232-to-RS422 converter	3L9-OPMAC2-OPT		49.00	
10	Firmware version specification	310-OPMAC2-OPT		30.00	
12	8 Channels on-board 12-bit A/D converters	312-OPMAC2-OPT		195.00	
12A	8 Extra channels on-board 12-bit A/D converters	312-APMAC2-OPT		195.00	
ACCESSORIES/(ACC)					
1	+5V Power supply	1 Card.....P/N B5-30VP	100-B530VP-000	79.00	
1A	For standalone use	2,3 Cards....P/N C5-60VP	100-C560VP-000	129.00	
1B		4,5 Cards.....P/N N5-90VP	100-N590VP-000	169.00	
1C		6,7,8 Cards....P/N D5-120VP	100-5120VP-000	199.00	
1SA	5V Power supply (one card) switching (for better transient suppression)		100-402051-000	call factory	
2	+/-5V Power Supply...P/N BB15-15		100-BB1515-000	129.00	
2A	+/-15V Power Supply & +5 Volts HTAA-16WA		100-HTAA18-000	129.00	
2B	+/-15V Power supply & +5 Volts HBAA-40W (Recommended for 8-channel PMAC)		100-HBAA40-000	169.00	
2SA	+12V Power supply, 1.2A switching (for better transient suppression)		100-301212-000	call factory	
4L2	Additional instruction manual for PMAC 2-PC		3A0-602408-363	75.00	
8E	2-axis analog interface terminal block board		3A0-602469-100	595.00	
	Option 1 - Rail mount		301-0ACC8E-OPT	35.00	
8F	2-axis PWM interface board with digital current feedback		3A0-602481-100	199.00	
	Option 1 - Rail mount		301-0ACC8F-OPT	35.00	
8K1	2-axis PWM interface board to Fanuc C/S-Series drives		3A0-602657-101	597.00	
	Option 1 - Rail mount		301-ACC8K1-OPT	35.00	
8K2	2-axis PWM interface board to Kollmorgen IPB drives (requires Option 1A or 1B)		3A0-602655-100	469.00	
	Option 1A - Terminal block encoder interface		3A1-ACC8K2-OPT	89.00	
	Option 1B - DB-25 connector encoder interface		3B1-ACC8K2-OPT	45.00	
	Option 2 - Rail Mount		302-ACC8KS-OPT	35.00	
8S	2-axis stepper motor interface board		3A0-602644-100	150.00	
	Option 1 - Terminal block encoder interface			45.00	
	Option 2 - Rail mount		302-0ACC8S-OPT	35.00	
8T	TUVW Flat switch interface		3A0-602670-100	199.00	
9C	IBP-PC Basic Communications Library (COMLIB); written in C; Linkable code for DOS & Windows (DLL) Site License		3A0-COMLIB-000	75.00	
	Option 1 - Executive code upgrade; Site License		301-COMLIB-OPT	75.00	
9DA	IBM-PC Executive software diskette for DOS, 3.5"; for startup, diagnostics, & programming; executable codes; Site License		3A0-PCPMAC-360	250.00	

9L	IBM-PC Extended library interface for PMAC systems (LIPS); written in C; Linkable code for DOS & Windows (DLL); Site License (Requires ACC-9C)	3A0-00LIPS-000	350.00
9P	IBM-PC Communications library (PCOMM); written for C/C++; linkable code for DOS & Windows (DLL) Site License	3A0-COMLID-09P	75.00
9W	IBM PC Executive software Diskette for Window, 3.5"; for startup, diagnostics, & program: executable code; Site License	3A0-0PCWIN-350	350.00
	Option 1 - Executable code upgrade; Site License	301-0PCWIN-OPT	175.00
12	Display, 24x2 LCD 5mm high alpha chars w/180-cm (6") cable, filter & bezel	3A0-A77130-000	150.00
12A	Display, 40x2 LCD 5mm high alpha chars w/180-cm (6") cable	3A0-A59130-000	199.00
12C	Display, 40x2 vacuum fluor. 5mm high alpha chars w/180-cm (6") cable, filter & bezel w/standoffs & screws	3A0-S03601-000	399.00
12C1	Display, 40x2 vacuum fluor, 5mm high alpha chars w/180-cm(6") cable, filter & bezel w/standoffs & screws, w/diff line receivers, latched,buffered & 12D compatible	3A0-S03601-001	425.00
12CA	180-cm (6") cable and mounting PCB for separately purchased display	3A0-802275-500	125.00
12D	Long-distance display signal drive module ((to 180m (600') for ACC-12F); w/180-cm (6") 14-pin cable to PMAC. Requires ACC-12E w/Option 1.	3A0-602395-10x	125.00
	Option 1 - DIN rail mount	301-ACC12D-OPT	35.00
12E	Adapter & power driver for ACC012F large vacuum fluor. displays; w/180-cm (6") 14-pin cable to PMAC	3A0-602377-10x	250.00
	Option 1 - DB-25 connector (no cable) to ACC-12D; no cable to PMAC	301-ACC12E-OPT	25.00
	Option 2 - DIN rail mount	302-ACC12E-OPT	35.00
12F	Display purchased separately	3A0-ACC12F-000	0.00
	Option 1 - 40x2 5mm high chars; w/2 180-cm (6") cables to ACC-12E, bezel, no filter (P/N IEE S03601-51-096)	301-ACC12F-OPT	795.00
	Option 2 - 20x4 11mm high chars; w/2 180-cm (6") cables to ACC-12E, bezel, no filter (P/N IEE S03601-24-080)	302-ACC12F-OPT	1599.00
	Option 3 - IEE large screen display	303-ACC12F-OPT	call factory
14D	48 I/O, expansion board: 48 digital I/O; can plug into PC-Bus; requires an Opt 1-4	3A0-602193-10x	599.00
	Option 1 - 14 inputs and 24 outputs; TTL levels 0 to 5 volt, tru (3x14, 3xO4)	301-ACC14D-OPT	25.00
	Option 2 - 24 inputs and 24 outputs; 0 to 24 volts, low true (3x11, 3xO1)	302-ACC14D-OPT	25.00
	Option 3 - 48 inputs, TTL levels, latching, for parallel binary feedback (6x15)	303-ACC14D-OPT	25.00
	Option 4 - Custom configuration to be specified by customer, fill out spec sheet	304-ACC14D-OPT	125.00
	Option 6 - Dual parallel to quadra ure converter for commutation	306-ACC14D-OPT	35.00
	Option 7 - 20-cm(8") 50-pin 3-connector cable when ACC-14D is used with PMAC OPT-2, ACC-24P, or ACC-36P (Not valid with Option 5)	307-ACC14D-OPT	75.00
17DA	PMACAD software to convert CAD dwgs to PMAC commands; 3.5" disk; executable code; Site License	3A0-PMACAD-350	699.00
18	Thumbwheel multiplexer board for 16 thumbwheels no digits w/180-cm (6") cable to PMAC	3A0-602178-10x	189.00
	Option 1 - Expansion connector to next ADD-18	301-0ACC18-OPT	47.00
	Option 2 - Dip switch, each (8 units max, in place of 2 thumbwheel digits)	302-0ACC18-OPT	9.00
	Option 3 - Not applicable	n/a	n/a
	Option 4 - thumbwheel, each (8units max)	304-0ACC18-OPT	38.00
	Option 5 - External power connector	305-0ACC18-OPT	30.00
	Option 6 - Molex connectors with mates, each (16 max, allows remote thumbwheel)	306-0ACC18-OPT	10.00
20	TM200G-001 Panel mounted numeric control keyboard & display terminal with 24", 26-pin cable	100-CTM200-G00	525.00
22	Extended warranty, to 2 years from date of purchase	3A0-00WARR-000	190.00
24P	4-channel axis expansion PC card (12 chan total: 8 on PMAC, 4 on ACC 24P) with 2 8-cm (3") cables	3A0-602192-101	999.00
	Option 1 - 4 additional channels (16 channels total: 8 on PMAC, 8 on ACC-24P)	301-ACC24P-OPT	599.00
	Option 2 - 20-cm (8") 50-pin 3-connector cable when ACC-24P is used with PMAC OPT-2, ACC-14D, or ADD-36P (Not valid w/PMAC OPT-5)	302-ACC24P-OPT	75.00
25	Extended algorithm autotuning software for IBM-PC (Must have PMAC OPT-6); executable code; Site License, 3.5" diskette	3A0-000GAA-000	499.00
	Option 1 - Executable code upgrade, Site License	301-0ACC25-OPT	250.00
26A	Serial communications isolator/converter with rail mount, requires OPT 1	3A0-602213-a0x	200.00
	Option 1 - Host RS-232 to PMAC RS-422, w/26-pin 60-cm (24") cable	301-ACC28A-OPT	95.00

27	Opto isolated I/O board; 24V, 8in, 8out (Select OPT-1 A/B or OPT-2 A/B)	3A0-602237-10x	319.00
	Option 1 - iSBX mounting option (Requires use of ACC-14D)	301-0ACC27-OPT	50.00
	Option 1A - DB-25 input connector	3A1-0ACC27-OPT	30.00
	Option 1B - 18-pin input terminal block (default)	3B1-0ACC27-OPT	30.00
	Option 2 - Thumbwheel port option with rail mount & 60-cm (24") cable (default)	302-0ACC27-OPT	50.00
	Option 2A - DB-25 input connection	3A2-0ACC27-OPT	30.00
	Option 2B - 18-pin input terminal block (default)	3B2-0ACC27-OPT	30.00
29	Converter MLDT magnetostrictive linear displacement transducer, 4 channel with 10-cm (4") cable	3A0-602243-10x	799.00
	Option 1 - 4 additional channels (8 total)	301-0ACC29-OPT	399.00
32	PMAC operating software upgrade/update kit included EPROM, Executive diskette and manuals	3A0-0ACC32-000	395.00
	Option 1 - Additional EPROM	301-0ACC32-OPT	55.00
34	Optically isolated I/O board, 64-bits total, definable as inputs or outputs in blocks of 32. All I/O is sinking only, 5V to 24V, 400 mA. Provided with 24" long, 26-pin cable	3A0-602336-10x	695.00
	Option 1 - Rail mount	301-0ACC34-OPT	35.00
34A	Optically isolated I/O board, 64-bits total. Selectable sinking or sourcing; default is all sourcing, 32in, 32out, 15V to 24V, 100 mA w/60-cm (24") cable	3A0-602350-10x	399.00
	Option 1 - Custom configuration, sinking/sourcing in/out (Contact factory for form)	301-ACC34A-OPT	125.00
	Option 2 - Rail mount	302-ACC34A-OPT	35.00
	Option 3 - All sinking configuration, 32 in, 32 out	303-ACC34A-OPT	no cost
34B	Optically isolated I/O board, 64-bits total, designed for easy connection to Opto-22 and compatible boards (See ACC-21 cables)	3A0-602375-10x	295.00
	Option 1 - Rail mount	301-ACC34B-OPT	35.00
35A	Thumbwheel differential line driver w/1, 26-pin, 24" cable (Requires Option 1 or 2)	3A0-602344-10x	159.95
	Option 1 - DB37 Connector for I/O	301-ACC35A-OPT	20.00
	Option 2 - Phoenix terminal block connector for I/O	302-ACC35A-OPT	40.00
35B	Thumbwheel port buffer differential line receiver with 1, 26-pin, 24" cable (Requires Option 1 or 2)	3A0-602345-10x	159.00
	Option 1 - DB37 Connector for I/O	301-ACC35B-OPT	20.00
	Option 2 - Phoenix terminal block connector for I/O	302-ACC35B-OPT	40.00
36P	8-Channel, 12-bit A/D converter board, mountable in PC-Bus	3A0-602363-10x	699.00
	Option 1 - 8 Additional channels (16 total)	301-ACC36P-OPT	299.00
	Option 2 - 20-cm (8") 50-pin 3-connector cable when ACC-36P is used with PMAC Option 2, ACC-14D, or ACC-24P (Not valid with PMAC Option 5)	302-ACC36P-OPT	75.00
39	Handwheel encoder converter board, w/60-cm (24") cable to JPAN	3A0-602378-10x	175.00
	Option 1 - Rail mount	301-0ACC39-OPT	35.00
40	On-site field service/training; 2 day (16 hr) minimum, plus lodging, travel cost & time	3A0-0ACC40-000	100.00/hr
41A	Servo training system, torsional bar/diskette mechanism, PMAC not included.	3A0-ACC41A-OPT	7750.00
41B	Servo training system, mass/spring/damper mechanism, PMAC not included	3A0-ACC41B-OPT	8750.00
42P	MACRO Interface Board for PMAC 2-PC/-Lite for JMACRO port connection (requires OPT-A, B, or C)	3A0-602559-100	399.00
	OPT-A - Fiber Optic Interface	30A-ACC42P-OPT	269.00
	OPT-B - Coaxial Cable Interface	30B-ACC42P-OPT	69.00
	OPT-C - RJ-45 Cable Interface	30C-ACC42P-OPT	19.00
	OPT-1 - PMAC JEXP port connection	301-ACC42P-OPT	139.00
	OPT-2 - PC ISA Bus connection	302-ACC42P-OPT	219.00
	OPT-3A - 1.5m (5 ft) terminated glass optical fiber cable	3A3-ACC42P-OPT	69.00
	OPT-3B - 5m (15 ft) terminated glass optical fiber cable	3C3-ACC42P-OPT	79.00
	OPT-3C - 8m (25 ft) terminated glass optical fiber cable	3D3-ACC42P-OPT	89.00
	OPT-3D - Custom-length terminated glass optical fiber cable	3D3-ACC42P-OPT	85.00+3.50/m
	OPT-4 - MACRO developer's kit: 3 ASIC's, 3.5m cables, diskette, docs. (no discounts, limit 2 per customer)	304-ACC42P-OPT	499.00

PLEASE NOTE:

Standard Warranty is 1 YEAR from delivery date, see ACC-22 for extended warranty

All prices are for lot production and are quoted F.O.B. Northridge, CA, for scheduled deliveries over one year, contact factory.

Terms are Net 30 days.

Miscellaneous cables and connectors: please call factory.

A "Minimum Level," fully functional PMAC order would consist of:

- 1) P/N 400-60223-a0x (4 axis PMAC-VME
- 2) ACC-3D (RS232 cable for PC based programming) - one time purchase if Bus application.
- 3) ACC-8D/8P Terminal block for machine connections.
- 4) 9DA (a one-time purchase only) - PC based executive disketts for programming PMAC

10% surcharge on all orders direct from factory to customers (not distributors) outside the U.S.

Additional 1% discount from list price to end customers (not distributors or VAR's) for no manuals included with order-must be for all items on the purchase order.

Rail is available for rail mount options either from Phoenix P/N 1201015 or Delta Tau P/N 200-001015-000,

45-cm (18")

sections

35.00

Option/Accessory currently not released. Call factory for availability.

Upgrade policy on software-both PC and PMAC- is one free upgrade within six months of initial purchase;

after that time, the appropriate option/accessory must be purchased. PC software is provided on 3.5" diskette, unless otherwise specified.