INSTRUMENT CONTROLLERS & OPERATOR INTERFACES

QVGA Controller™

The ultimate solution for instrument control! This C-programmable embedded computer comes complete with a high contrast ¼ VGA 320x240 pixel electroluminescent (EL) or LCD graphics display, a four-wire analog touchscreen, and an I/O rich QED Flash board with a built-in GUI software toolkit. **The QVGA Controller** commands eight 12-bit analog input channels, eight 8-bit analog inputs, eight 8-bit D/A lines, 24 digital I/O, 4 high current drivers, and two RS232/485 ports. Other features include a real-time multitasking operating system, hundreds of pre-coded device drivers, 384K Flash and 256K RAM. Up to 8 Wildcard I/O modules can be plugged in to add dozens more digital and high-resolution analog signals and/or mass memory. Pre-coded I/O drivers facilitate data acquisition, pulse width modulation, motor control, frequency measurement, data analysis, analog control, PID control, and communications. For a sleek look, add an aluminum anodized bezel (Choose the **-BZ** option).

Part No.		Price per Unit
QVGA	QVGA Controller, which includes 384K Flash, 256K RAM, 5.7" 320 x 240 pixel Monochrome LCD display, touchscreen, precoded GUI Toolkit, connectors for serial, power, and a power switch.	$799.00 100 qty: $639.00
	Options: (add price to the standard product) **Standard quantity discounts are offered**	
-BB	128K sealed battery-backed RAM in place of 128K RAM	$60.00
-BZ	Mounted on a 6"x8 black anodized aluminum bezel	$80.00
-MM	Additional 384K RAM and 384K Flash for total of 640K RAM and 768K Flash	$30.00
-RT	Includes a battery-backed real time clock	$45.00
-CC *	CCFL current controller provides sure start and even luminosity over all temperatures	$15.00
-IS *	An intrinsic safety barrier protects all touchscreen leads	$50.00
-EL*	A bright amber-on-black 320x240 pixel electroluminiscent (EL) display	$750.00
-NC *	Does NOT include the extra DB9 connectors, power jack, or power switch but brings all signals to standard headers	-$5.00
	Note: -CC, -IS, and -NC options are only available for quantity orders of 10 or more	

QVGA Starter Kit™ Part No. **QVGASK** $849.00

This kit includes everything you need for a fast start: the QVGA Controller (p/n **QVGA-BB**) with a monochrome display, battery-backup of the 128K RAM on the QED-Flash Board, 9-pin serial cable, power supply, and documentation.

QScreen Controller™

Competitively priced, this fully functional, compact industrial computer is ideal for OEM applications where installation space is critical. The QScreen Controller sports a touchscreen-operated graphical user interface on a high-contrast 128x240 pixel display with a 5 x 4 touchscreen overlay. It commands eight 8-bit A/D lines, 8 digital I/O lines including timer-controlled and PWM channels, and two RS232/485 ports. It comes complete with object-oriented menuing software that makes it easy to control your application using buttons, menus, graphs, and bitmapped pictures.

Choose among many options: from 512K Flash and 128K RAM for a standard configuration up to 1M Flash and 512K RAM with the expanded memory option. For those really extensive applications that require lots of memory or removable data storage, add the Compact Flash Wildcard to provide additional 64MB or 128MB of mass memory. Need even more I/O? The QScreen Controller directly hosts up to 7 Wildcards (see the "Wildcards" section of this pricesheet).

Part No.		
QSC	QScreen Controller, which includes a monochrome LCD, touchscreen, convenient connectors, 128K RAM, 512K Flash and precoded GUI Toolkit.	$449.00 100 qty: $359.00
	Options: (add price to the standard product)	
-BZ	Mounted on a 6"x8 black anodized aluminum bezel	$60.00
-MM	512K RAM (cannot be battery backed) replaces 128K RAM and 1MB Flash replaces 512K Flash	$50.00
-RB	Real time clock and battery backup for 128K RAM (does NOT back up 512K RAM)	$30.00
-CC *	CCFL current controller provides sure start and even luminosity over all temperatures	$15.00
-IS *	An intrinsic safety barrier protects all touchscreen leads	$50.00
-NC *	Does NOT include DB9 connectors, power jack, or power switch	-$5.00
	Note: -CC, -IS, EL, and -NC options are only available for quantity orders of 10 or more	

QScreen Starter Kit™ Part No. **QSSK** $549.00

The QScreen Starter Kit includes everything you need to develop a prototype instrument with an advanced GUI: the QScreen Controller (p/n **QSC-MM-RB**) with a monochrome display, real time clock, 512K RAM and 1MB flash, a full documentation package, power supply and cables. For a sleek look you can add a black anodized aluminum bezel. The QScreen Controller can either be flush mounted using the bezel or directly mounted to a panel with a cutout.

INSTRUMENT CONTROLLERS & OPERATOR INTERFACES (CONTINUED)

Panel-Touch Controller™

		Quantity	Standard	Enhanced
Standard Configuration	Part No. **ST-1**	1-9	$699.00	$749.00
Enhanced Configuration	Part No. **ST-1E**	10-49	$664.00	$711.00
		50-99	$629.00	$674.00
		100+	$595.00	$636.00

This compact package integrates the I/O-rich QED-Flash Board with 256K flash and 128K RAM, a high contrast white-on-blue 128x240 pixel graphics display with cold cathode fluorescent (CCFL) backlight, and a 4 row by 5 column transparent touchscreen overlay with pre-coded menu control software. It delivers everything you need for instrument automation, including 48 digital and analog I/O lines, RS232 and RS485 serial ports, plenty of memory, built-in QED-Forth development software, and a state of the art user interface. Pre-coded button manager and graphics libraries make it easy to implement a menu-driven front panel. The enhanced configuration of the Panel-Touch Controller adds built-in serial communications connectors, on/off switch, power jack, and screw terminals for the on-board high current drivers. For a professional look, add the black anodized bezel (the **-BZ** option) or see the other options in the "Enclosures" section of this price sheet. An optional Chemically Hardened and Impact-Resistant Touchscreen for use in harsh environment is available with your Panel-Touch Controller (Part Nos. ST-1-HTS or ST-1E-HTS). Call 510-790-822 for price and availability.

Options: (add price to the Standard or Enhanced product)

-BB	128K sealed battery-backed RAM in place of 128K RAM	$60.00
-BZ	Mounted on a 6"x8 black anodized aluminum bezel	$60.00
-RT	Includes a battery-backed real time clock	$45.00

Panel-Touch Starter Kit™ Part No. **STSK-1** $799.00

Everything you need to develop an instrument with a state of the art touchscreen front panel interface is included. This kit includes the Enhanced Configuration of the Panel-Touch Controller, plus: battery-backup of the 128K RAM on the QED-Flash Board, 9-pin serial cable, power supply, and documentation so you can get a fast start on your project. For a sleek look, add the black anodized bezel (the **-BZ** option) or see other options in the "Enclosures" section of this price sheet. (Limit of 1 Starter Kit per order at this low price!)

QED Industrial Control System™

Character display and keypad	Part No**. ICS4-AK**	$ 895.00
Graphics display and keypad	Part No. **ICS4-GK**	$ 980.00
CCFL Backlit graphics display and keypad	Part No. **ICS4-GBK**	$1065.00
CCFL Backlit graphics display with touchscreen	Part No. **ICS4-GBT**	$1165.00

The ICS comes complete with a QED-Flash Board, versatile backplane board with screw terminal connections and room for two additional I/O boards, enclosure, power supply, serial communications cable, comprehensive documentation, and your choice of user interfaces. The I/O-rich QED Board is outfitted with 256K flash and 128K battery-backed RAM, real-time clock and onboard QED-Forth development environment. The rugged industrial enclosure comes completely assembled and is suitable for tabletop or panel-mount applications. The backplane board accommodates the QED Board, a prototyping area, and up to two add-on I/O boards; all field connections are brought out to easily accessible screw terminals. For maximum capability, install a QED Analog Conditioning Board and Digital I/O Board in the Industrial Control System to configure your own “Super PLC”!

QED Product Design Kit™ Part No. **PDK4-AK** $775.00

Everything you need to rapidly prototype an instrument is included. This pre-assembled kit includes a QED-Flash Board outfitted with 256K flash and 128K battery-backed RAM, onboard QED-Forth development environment, real-time clock, power supply, serial cable, 5 x 4 keypad, 4 x 20 character display, prototyping board, comprehensive documentation package, plus a versatile instrument enclosure with mounting hardware for your computer, electronics, keypad, and display.

SOFTWARE

QED-Forth Development Software Part No. **QED-4TH** Onboard

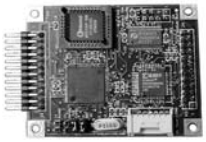
The QED-Forth software is provided free of charge on each QED Board onboard ROM. It delivers an interactive interpreter, compiler, assembler and debugger to speed programming and testing. In addition, it provides resources that are callable from Forth or C, including automatic system initialization as well as a multitasking executive, heap memory manager, and extensive libraries of device drivers and interrupt support routines.

C Development Software Part No. **C-DEV** $275.00

With Purchase of **any Mosaic's instrument controller or development package** $199.00

This software provides a C cross-compiler, assembler and linker that run on your PC. Its customized environment makes it easy to compile and download programs to run on the QED Board. Our documentation and coded examples show you how to call all of the pre-coded device drivers, invoke the multitasker, post interrupt handlers, and set up your application as a turnkeyed program that automatically executes each time the board starts up. Purchase of one C_DEV provides you with a license to use the compiled code in all your OEM instruments.

Qcard™ Controller New!



This 2" by 2.5" single board computer fits any handheld or space-constrained applications and is ideal for interfacing to sensors and actuators in machine automation, industrial control, robotics, and scientific instrumentation. The QCard sports a 16 MHz Motorola 68HC11F1 microprocessor, 512K Flash and up to 512K RAM, 320 bytes of EEPROM, 8 lines of programmable digital I/O, 8 lines of 8-bit analog-to-digital conversion, and dual RS232/485 ports.

Part No.	QCard Controller, which includes 128K RAM and 512K Flash	$149.00
QCC		100 qty: $119.00

Options: (add price to the standard product)

-MM	512K RAM replaces 128K RAM (Cannot be battery backed)	$30.00
-RB	Real time clock and battery backup for 128K RAM (does not back up 512K RAM)	$30.00

QCard Starter Kit Part No. **QCSK** $299.00

This kit includes everything you need for a fast time to market: a QCard (p/n **QCC-RB**) with 512K Flash, 128K RAM, and a real time clock; a 4" x2.5" version of the PowerDock (p/n **PDW-1**) to provide mechanical and electronic platform for your QCard and for up to eight Wildcards; as well as a 9 pin serial cable, an 8VDC wall-mount power supply and documentation.

PowerDock™

		1-9	10-49	50-99	100+
PowerDock Wide Configuration	Part No**. PDW**	$99.00	$89.00	$84.00	$79.00
PowerDock Slim Configuration	Part No. **PDS**	$94.00	$85.00	$80.00	$75.00

New!

The PowerDock provides power and convenient connectors and switches for the QCard, and for up to eight additional expansion I/O modules -the Wildcards. The PowerDock comes in two versions: a slim version having the same footprint as the QCard and a double-sized version. While the PowerDock-Slim (p/n **PDS-1**) hosts and provides power for up to four stackable Wildcards; the double-width version (p/n **PDW-1**) brings out an extra wildcard extension bus to plug four additional Wildcards, creating an unprecedented I/O density.

Options: (add price to the standard option)

-NC	Does NOT include DB9 connectors, power jack, or power switch. (Available for quantity orders of 10+)	-$5.00

QED-Flash Board™

Includes a high level Forth programming environment, assembler, symbolic debugger, extensive runtime library, and multitasking executive in onboard ROM. The board delivers 60 I/O lines including up to 8 timer-controlled signals, 8 channel 8 bit A/D, 8 channel 12 bit A/D, 8 channel 8 bit D/A, 4 high current drivers, keypad and LCD display interfaces, dual RS232/485 serial interfaces, and fast SPI serial peripheral interface. Industrial temperature versions of the QED-Flash Board are also available.

Part No.	QED-4-Flash Board comes with 128K RAM in the S2 socket, 256K flash in the S1 socket which includes the QED-Forth development software plus 128K of flash available for the user. You may specify an optional battery-backed real-time clock which resides in the S3 socket.	$495.00
QED-4		100 qty: $396.00

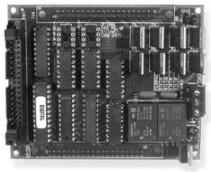
Options: (add price to the standard option)

-BB	128K sealed battery backed RAM replaces 128K RAM	$60.00
-RT	Includes a battery-backed real time clock	$45.00

QED Developer Package™ Part No. **DEV-4** $645.00

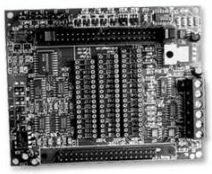
This package provides a QED-Flash Board with comprehensive onboard QED-Forth development software and powerful I/O-rich hardware, outfitted with 256K flash and 128K battery-backed RAM for easy program development. Also includes real-time clock, power supply, serial communications cable, and the complete QED Documentation Package – everything you need to start programming!

QED Digital I/O Board™ Part No. **DIB-1** $149.00



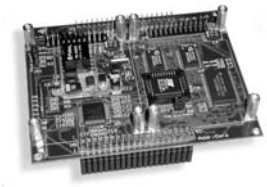
This board delivers 8 high current isolated MOSFET outputs, 8 high voltage isolated inputs, and two relay outputs to control industrial equipment. Up to four Digital I/O Boards can be connected to each QED Board via the address/data bus, and the QED Industrial Control System backplane can accommodate one or two Digital I/O Boards. A separate onboard connector brings out 16 logic level signals with an industry standard pinout, so this board can be used to add simple digital I/O or to interface standard industrial I/O modules to any QED system. Each Digital I/O Board can drive two unipolar stepper motors at up to 3 Amps per phase. Pre-coded software running on the QED Board controls the stepper motors at up to 1000 full- or half-steps per second. The Stepper Motor Evaluation Kit **(Part No. SMEVK-1)** provides an easy way to start prototyping your stepper motor application.

QED Analog Conditioning Board™ Part No. **ACB-1** $249.00



This board provides customized signal conditioning of the QED Board's 24 analog I/O lines. The 8 analog outputs can be scaled to a 0-10 Volt range, and the 16 analog inputs are conditioned by instrumentation amps, differential amps, and op amps with selectable gain, filtering and excitation. Two 4 to 20 mA signaling channels are supported, and onboard cold junction thermocouple compensation makes temperature measurement easy. The board plugs directly into the QED Industrial Control System backplane, or it can interface to the QED analog I/O connector via a 40-pin ribbon cable.

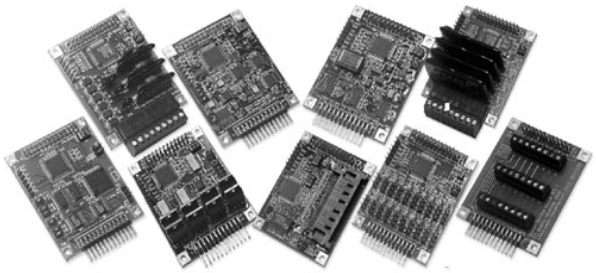
WildCard Carrier Board™ Part No. **WCB-1M** $125.00
Part No. **WCB-5F5R** $155.00



The WildCard Carrier Board mates directly to a QED Board or Panel-Touch Controller and provides addressing and power for up to eight *WildCard* modules. It also features an additional 128K RAM and socketed 128K Flash memory (p/n **WCB-1M**), with custom versions providing up to 512K RAM and 512K Flash (p/n **WCB-5F5R**). A pre-coded "kernel extension" library function makes it easy to write to the on-board flash memory.

WILDCARD EXPANSION MODULES

New!



Need a unique combination of specialized I/O?

Create your own custom system by mixing-and-matching these versatile I/O modules that measure only 2" x 2.5". Up to eight wildcards can be mounted directly onto the QVGA, QScreen or QCard Controllers for any type of sensor measurement or real-time control. Or stack them on the Wildcard Carrier Board™ to enhance the I/O capabilities of your Panel-Touch Controller or QED Flash Board. Standard quantity discounts are offered.

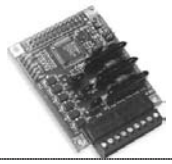
24/7 Data Acquisition Wildcard™ Part No. **W-DA24/7** $140.00

The 24/7 Data Acquisition module, with its 7 channels of 24-bit analog to digital conversion, is your instrument's complete analog front end, offering exceptional resolution, stability, and noise rejection. Ideal for high resolution, low frequency measurements, this I/O module accepts low level signals directly from transducers, amplifies and conditions them, and converts them with 24 bits of resolution with no missing codes performance.

AC Solid State Relay Wildcard™ Part No. **W-ACM-1** $120.00

This module gives you electrically isolated control of any AC operated equipment: relays, motors, pumps, valves, heaters, fans. Each module independently controls up to four devices, and switches at zero crossings of the AC line.

DC Solid State Relay Wildcard™ Part No. **W-DCM-1** $120.00



This module provides optically isolated control of three high-current DC devices. It is the ideal solution for operating DC motors, relays, and valves.

Digital I/O Wildcard™ Part No. **W-DIM-1** $50.00

This module provides 20 digital I/O lines, including 4 input channels plus 16 channels that can be configured as input or output in groups of 4. Output pins can sink up to 24mA

Analog I/O Wildcard™ Part No. **W-AIM-1** $150.00

This general-purpose Analog I/O module features 8 channels of 12-bit voltage output digital-to-analog conversion, and 8 channels single-ended or 4 channels differential 16-bit resolution analog-to-digital conversion. The DAC output ranges are user selectable as 0 to 2.048V or 0 to 4.096V, while the A/D input has a user selectable full scale of 1V, 2V, 4V or 5V. Either can also use an external reference, and onboard references are provided for external circuitry.

Compact Flash Wildcard™ Part No. **W-CFM-1** $75.00

This Compact Flash Wildcard expands the memory capabilities of the QED board or Panel-Touch Controller by providing a plug-in interface to large-capacity removable flash data storage. The CF module allows you to plug in Compact Flash memory cards that measure only 1.5" by 1.7" yet hold many megabytes of nonvolatile data **(Part No CF-64)**. Pre-coded software supports a standard DOS- and Windows-style "FAT" file system, allowing files to be created on a PC and read by the QED Board, or visa versa. Mosaic also sells a Compact Flash PC card adapter (**Part No. CF-ADAP)** that lets you plug the memory card into your laptop PCMCIA socket to easily exchange data files.

Compact Flash 64Mbyte Memory Card Part No. **CF-64** $85.00

CF to PC Card Adapter Part No. **CF-ADAP** $30.00

UART Wildcard™ Part No. **W-UAM-1** $110.00

This Universal Asynchronous Receiver/Transmitter (UART) Wildcard Module implements two full-duplex serial ports that can be configured for RS232, RS422, and RS485 protocols with data rates up to 56000 baud. Optional handshaking signals enable a modem connection for remote communications via any phone line.

Screw Terminal Wildcard™ Part No. **W-SCM-1** $50.00

Easily connect to the logic or field side of any WildCard module using these handy screw terminals. Each board provides 24 terminals rated at 12 A and 300 VDC. These simple connections are ideal for prototyping and breadboarding your product.

Power I/O Wildcard™ Part No. **W-PWR-1** $110.00

This Wildcard provides eight optically isolated high-current DC outputs and four optically isolated high-voltage inputs. The current sinking outputs are intended to actuate high-current devices such as motors, relays, heaters, and solenoids. They can each sink 2 A continuously and up to 10 A intermittently, withstand field voltages of 50 volts, and are snub diode protected against kickback from inductive loads. The opto-isolated inputs sense switch closures and/or bipolar voltages from ± 5 to ± 50 V. Inputs and outputs are optically isolated to ± 2500 V.

Keypad/Display Wildcard™ Part No. **W-KPD-1** $175.00

This Wildcard provides the hardware and software to interface the QCard Controller to a 4 x 5 keypad and 4 x 20 character display. It is an ideal solution for hand-held or space-constrained applications that require a programmable computer and a low-cost yet smart interface. The Keypad/Display Wildcard mounts directly on the QCard and is connected to the keypad and display via a simple ribbon cable.

Includes 4x5 keypad, 4x20 character display, and cable.

ENCLOSURES

Black Anodized Aluminum QVGA Bezel Part No. **BZL-QVGA** $80.00

Mounts to the QVGA Controller. Gives a sleek professional look to panel-mount applications. Measures 8" x 6" x 0.25".

Black Anodized Aluminum Bezel Part No. **BZL-ST** $60.00

Mounts to the Panel-Touch Controller or QScreen Controller. Gives a sleek professional look to panel-mount applications. Measures 5" x 7" x 0.25".

Black Anodized Aluminum Enclosure with Bezel Part No. **ENSTA-TOPCON** $149.00

Part No. **ENSTA-REARCON** $169.00

Accommodates the Panel-Touch Controller, Panel-Touch Starter Kit, or any system that incorporates the touchscreen/graphics display. Includes the anodized aluminum bezel front panel (Part No. BZL-ST) plus a modular black anodized aluminum enclosure measuring 5" x 7" by 3.25" deep. Has top or rear panel openings.

Black Plastic Enclosure Part No. **ENSTP-TOPCON** $60.00

This cost-effective enclosure measures 6.9" x 4.9" x 2.5" deep, and accommodates the Panel-Touch Controller Enhanced Configuration (Part No. ST-1E) or the Panel-Touch Starter Kit (Part No. STSK-1). Includes openings in the top panel that accommodate the dual DB-9 serial headers, power jack, on/off switch and screw terminal connectors.

NEMA-4X Ruggedized Stainless Steel Enclosure Part No. **ENST-NEMA4X** Call for price

This heavy-duty enclosure accommodates the Panel-Touch Controller Standard Configuration (Part No. ST-1) in a corrosion-resistant 16 gauge 304 stainless steel case measuring 7.75" x 5.75" x 3.25" deep. Features a gasketed lid, plus dual flanges for easy panel mounting. Comes complete with power and serial cables and connectors that can be brought out at punch-able openings in the bottom panel.

Industrial Control System Enclosure Part No**. IEN-XX** $155.00

Rugged metal enclosure that houses the QED Industrial Control System. Specify the desired keypad/display by replacing the XX in the part number with the suffix of one of the ICS options: AK for character/keypad, GK for graphics/keypad, or GT for graphics/touchscreen.

Product Design Kit Enclosure Part No. **PEN-AK** $100.00

Versatile metal enclosure that houses the QED Product Design Kit.

MEMORY

The QED Board has 3 memory sockets. Socket S1 holds the 256K flash on the QED-Flash Board. Socket S2 holds a 128K RAM. Socket S3 accommodates an optional real-time clock on the QED-Flash Board. The ICS, PDK, and Developer Package come fully loaded with the maximum amount of battery-backed RAM and a battery-backed real-time clock. The following additional memory is available for the QED-Flash Board. Plug-in compact flash memory cards are also available for the Compact Flash Wildcard.

128K Sealed Battery-Backed RAM Part No. **128KB-RAM** $60.00

Real Time Clock Socket Part No. **RTC-SKT** $45.00

ACCESSORIES

Thermal Printer Part No. **PRINT-TH1** $299.00

This 5.3" x 3.9" x 1.4" battery-operable unit prints on 2 1/4" thermal paper rolls. Includes software, rechargeable battery, AC adapter, custom serial cable and 9/25 pin adapter. Directly connects to any female 9 or 25 pin serial connector (for example, on the ST-1E, PDK, or ICS).

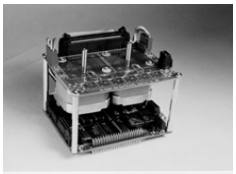
Barcode Reader Part No. **BAR-1** $299.00

Self-contained wand reads all industry-standard barcodes. Includes driver software, manual, power supply, serial cable, and 9/25 pin adapter. Directly connects to any female 9 or 25 pin serial connector (i.e. on the ST-1E., PDK, or ICS).

Stepper Motor with Cable Part No. **STEPMOT-1** $30.00

A NEMA Size 17 (1.7" diameter) stepper motor with a 6-pin in-line header. The motor is a 4-phase 12-volt 400 mA per phase unipolar stepper with 200 steps per revolution, rated at 220 g-cm detent torque and 2000 g-cm holding torque.

Stepper Motor Evaluation Kit Part No. **SMEVK-1** $279.00



This handy package includes two NEMA Size 17 (1.7" diameter) stepper motors mounted on a 3.2" x 4" printed circuit board, plus a Digital I/O Board (Part No. DIB-1), motor power supply, cables and documentation. The motors are 4-phase 12-volt unipolar steppers with 200 steps per revolution, rated at 220 g-cm detent torque and 2000 g-cm holding torque. To purchase individual stepper motors, see **Part No. STEPMOT-1**.

Cables and Adapters

6V Power Supply and Cable Part No. **PS-6V** $25.00
Wall transformer delivers 6VDC @ 800 mA to power the QED Board or PDK.

8V Power Supply and Cable Part No. **PS-8V** $25.00
Wall transformer delivers 8VDC @ 1000mA to power the ICS or Panel-Touch Controller.

9 Pin QED Serial Communications Cable Part No. **QED-COM-CABLE-9** $15.00

25 Pin QED Serial Communications Cable Part No. **QED-COM-CABLE-25** $15.00
Interfaces the onboard QED serial header to two 25 pin female RS-232 PC-compatible serial connectors.

9 Pin PC Serial Cable Part No. **PCC9-232** $15.00
A 6' long 9 pin male to 9 pin female cable. Interfaces the 9 pin female RS-232 connector on the Panel-Touch Controller Enhanced Configuration or Panel-Touch Starter Kit to a 9 pin male PC-compatible serial connector.

25 Pin PC Serial Cable Part No. **PCC25-232** $15.00
A 6' long 25 pin male to 25 pin female cable. Interfaces the 25 pin female RS-232 connector on the QED Product Design Kit, Industrial Control System or QED Developer Package to a 25 pin male PC-compatible serial connector.

9 Pin Male to 25 Pin Female Adapter Part No. **ADAP-9M25F** $10.00
Allows the 9 pin PC Serial Cable (Part No. PCC9-232) to be used with a PC that has a 25 pin male serial connector.

9 Pin Female to 25 Pin Male Adapter Part No. **ADAP-9F25M** $10.00
Allows the 25 pin PC Serial Cable (Part No. PCC-232) to be used with a PC that has a 9 pin male serial connector.

40 Pin Ribbon Cable to Screw Terminal Block Part No. **40-ST-ADAP** $100.00
Breaks out any 40-pin ribbon cable with IDC connector into 40 individual screw-terminal blocks. Simplifies connecting to any signal on the Digital I/O Connector, Analog I/O Connector, or the Adress/Data Connector.

Prototyping Board Part No. **PB-1** $50.00
This 3.2" x 4.0" prototyping board comes complete with onboard address decoding logic and a QED cable.

Industrial Control System Backplane Board Part No. **IBP-1** $125.00
This 5.2" x 14.0" board provides prototyping areas and connections for screw terminals, serial interfaces, and power inputs. It accommodates a QED Board and two plug-in I/O boards.

QED Documentation Package Part No. **Doc-1** $50.00
Includes QED Board Software Manual, Hardware Manual, Glossary of QED-Forth library functions, and a booklet titled "Getting Started with the QED Board". The price of separately purchased documentation is deductible from the price of a QED Developer Package, PDK or ICS.

Motorola 68HC11 Technical Manuals Part No. **MAN-HC11** $25.00
The 68HC11 Reference Manual and 68HC11F1 Technical Data Book provide an in-depth description of the processor.

Mosaic at a Glance

In business since 1985, Mosaic Industries, Inc. is a leading supplier of high-quality embedded computers and user interfaces for scientific instruments, manufacturing automation and industrial control. Our off-the-shelf customized hardware/software packages speed the development of new products and get you to market faster. Typical applications are those that require powerful I/O-rich controllers and smart user interfaces, including:

- Scientific and Analytic Instruments
- Manufacturing Automation
- Data Acquisition and Logging
- Sensors and Actuators
- Operator Interface Panels
- Motion Control
- Test and Measurement Systems
- Laboratory Automation and Robotics
- Process Control and Chemical Analysis

Mosaic supplies Original Equipment Manufacturers (OEMs) and industrial systems integrators with low cost, single board computers incorporating a high level of software integration and preprogrammed user interfaces. Our products combine rugged, low cost hardware, graphic displays and touchscreens, powerful yet easy-to-use software, plenty of I/O and memory, state-of-the-art communications capability, and real-time, multitasking operating systems.

Call us and we will help you select the product that will work for you.

Ordering Information

Orders may be placed by mail, fax, or by calling Mosaic Industries at 510-790-8222. We welcome orders by check, Visa, MasterCard, wire transfer or COD. A 3% surcharge will apply to credit card transactions for quantity purchases.

Net 30 day terms are available upon approval of a credit application. Payments must be in US dollars and be drawn on a US bank.

Quantity Discounts

For most, but not all, of Mosaic's board-level products the volume discount schedule is:

Quantity	Discount	Minimum Delivery Size
10-49	10%	10 units
50-99	15%	10 units
over 100	20%	25 units

These discounts are available on scheduled orders; please contact Mosaic Industries for details.

Some exceptions to this standard discount schedule are as follows:

1. The list price of the **BZL-ST** bezel applies in quantities of 1-200.
2. The **ST-1** and **ST-1E** Panel-Touch Controller prices are presented on Page 2.

Discount does not apply to documentation and manuals; quantity orders of QED packages do not include documentation. Mosaic Industries, Inc. reserves the right to make changes to products, prices or documentation without notice.

Evaluation Policy

To allow evaluation of our product, we ask that you place a purchase order for the goods with net 30 terms (OAC). During the 30 day trial period we encourage you to take advantage of our free technical support. At the end of 30 days, you may either pay the original invoice and keep the product, or return the product in saleable condition and pay only the outbound shipping and handling charge.

Free Technical Support

Mosaic Industries provides free technical support to all our customers for the life-time of the products.