

# Prototype Boards, Circuit Boards & Accessories

## DATA Pre-Sensitized Circuit Boards & Chemicals

### Circuit Boards

- Pre-coated circuit board
- 1/16" thick

\*Web Code: CTB 156751



Part No.	Mfr. Part No.	Description	Size (W" x L")	1	10	50
2097117	14-024	Single sided	2.0 x 4.0	\$4.95	\$4.49	\$3.95
156751	14-034	Single sided	3.0 x 4.0	5.95	5.49	4.95
2161326	14-046	Single sided	4.0 x 6.0	7.95	7.19	6.59
2161334	14-066	Single sided	6.0 x 6.0	9.95	8.95	7.95
156742	14-234	Double sided	3.0 x 4.0	6.95	6.25	5.59
2161342	14-266	Double sided	6.0 x 6.0	12.95	11.49	10.49

### Copy Sheets and Chemicals

Part No.	Mfr. Part No.	Description	1	10	50
2097070	12-500	Clear copy sheets (8.5" x 11.5") 5 pk.	\$5.95	\$5.49	\$4.95
70201	ER3*	Dry concentrated etchant (makes 1 pint)	7.95	6.25	5.59
156734	12-404*	4 oz. positive developer	24.95	22.95	19.95
2097088	12-800	Tin plating copper kit†	16.95	15.95	14.95

\*Shipped via ground - available in continental U.S. only

† Includes ER-18 tinnit solution, 8"x6"x2" pan, 16 oz. bottle

## GC Prototype Boards

\*Web Code: PBH

### Export Design Phenolic Prototype Board

Accommodates all types of ICs, transistor packages and passive parts. Lands and bus bars are tin plated. 0.1" centers.

Part No.	Mfr. Part No.	Size (W" x L" x Thick")	1	10	50
616631	22-504	3 1/8 x 5 1/16 x 1/16	\$6.95	\$6.25	\$5.59

### Experimenter's Phenolic Prototype Boards

616649: Copper plated with 94 five-point terminals & two 40-point bus strips, 0.1 spacing

616673: Single land pattern, 0.15" spacing

Part No.	Mfr. Part No.	Size (W" x L" x Thick")	1	10	50
616649	22-508	2.0 x 6.0 x 1/16	\$12.95	\$11.95	\$10.95
616673	22-512	3.38 x 6.75 x 1/16	6.95	6.25	5.59

### Perforated Bare Phenolic Prototype Boards

Unexcelled for prototypes, breadboards, hobby or science projects. Bare phenolic board with no copper clad.

- 0.100" spacing
- 1/16" thick

Part No.	Mfr. Part No.	Size (W" x L")	Hole Dia.	1	10	25
616690	22-516	4.50 x 6.0	.042	\$5.95	\$5.49	\$4.95

## BPS Through-Hole Prototyping Boards

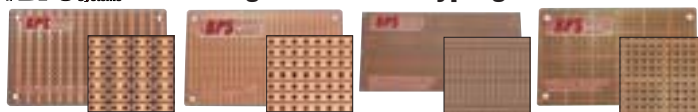


Fig. 1 Fig. 2 Fig. 3 Fig. 4

- High-quality FR4 glass-epoxy circuit board
- 0.037" drilled holes on 0.1" (2.54mm) centers
- 1 oz./ft<sup>2</sup> copper with anti-tarnish coating for easy soldering

Part No.	Mfr. Part No.	Description	Fig.	Size (W" x L")	1	10
2191461	PR2H1	Single-sided	1	1.97 x 3.15	\$3.95	\$3.59
2191488	ST1.	Single-sided	2	1.97 x 3.15	3.95	3.59
2191470	PR2H2	Single-sided	1	3.15 x 3.94	5.95	5.39
2191496	ST2.	Single-sided	2	3.15 x 3.94	5.95	5.25
2191429	SB1660	Single-sided	3	3.65 x 7.25	11.95	10.95
2191445	PAD1	Double-sided	4	1.97 x 3.15	4.95	4.49
2191453	PAD2	Double-sided	4	3.15 x 3.94	6.95	6.25

## MICROCHIP PICKit™ 3 In-Circuit Debugger

The PICKit 3 uses in-circuit debugging logic incorporated into each chip with Flash memory to provide a low-cost hardware debugger and programmer.

- Real-time execution
- MPLAB IDE compatible (free copy included)
- Built-in over-volt./short circuit monitor
- USB (Full speed 12 Mb/s)
- Supports low voltage to 2.0 volts (2.0V to 6.0V range)

Part No.	Mfr. Part No.	Description	1	5
2184632	PG164130	PICKit 3 programmer/debugger	\$74.95	\$64.95

## JAMECO ValuePro Prototyping Developer Kit

The Jameco prototyping developer kit includes everything you need to get started with prototyping your own PCB.

- 2 pre-coated circuit boards, 3" x 4" x 1/16" (P/N 156751, above left)
- 4 oz. positive developer concentrate (P/N 156734, above left)
- 32 oz. etching solution (P/N 616438, pg 130)



Part No.	Description	1	5
2113244	Prototyping developer kit*	\$49.95	\$44.95

\*Shipped via ground - available in continental U.S. only

## GC Bare Copper Circuit Boards - Single Sided

1 oz. copper on base of either fiberglass or reinforced epoxy board.

Part No.	Mfr. Part No.	Size (W" x L" x Thick")	1	10	50
616471	22-250	3" x 5" x 1/16"	\$3.75	\$3.39	\$3.09
616489	22-260	4" x 6" x 1/16"	4.95	4.49	3.95
616497	22-261	6" x 6" x 1/16"	4.95	4.49	3.95
616500	22-263	6" x 9" x 1/16"	5.95	5.49	4.95
616518	22-264	8" x 10" x 1/16"	9.95	8.95	7.95
616534	22-268	11" x 14" x 1/16"	14.95	13.95	12.95

\*Web Code: CTB



616518

## JAMECO ValuePro Copper-Plated Blank Circuit Boards

Single & double-sided boards are copper plated.

- Copper thickness: 35µm
- Total copper weight: 1 oz per side
- 1.6mm (1/16") thick
- PCB material: phenolic



\*Web Code: CTB

Fig. 1 Fig. 2 Fig. 3

Part No.	Cross Ref. No.	Description	Fig.	Size (L" x W")	1	10	50
169279	PCBS3X6	Single-sided	3	2.9 x 5.9	\$3.95	\$3.59	\$3.29
169288	PCBS6X6	Single-sided	2	5.9 x 5.9	5.95	5.29	4.79
169296	PCBS12X12	Single-sided	1	11.8 x 11.8	14.95	13.49	11.95
169309	PCBD3X6	Double-sided	3	2.9 x 5.9	4.95	4.49	3.95
169317	PCBD6X6	Double-sided	2	5.9 x 5.9	6.95	6.39	5.59
169325	PCBD12X12	Double-sided	1	11.8 x 11.8	19.95	18.95	16.95

## GC Positive Pre-Sensitized Circuit Boards

1 oz. copper (.0014") on an epoxy glass FR-4 board, UL94V-0 rated. The peel-off coating protects the board while handling or cutting prior to exposure. Use with developer mixed 1:9 with water.

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Part No.	Mfr. Part No.	Description	Size	1	10	50
616251	21-334	Single-sided	4" x 6"	\$6.49	\$5.95	\$5.49
616260	21-336	Single-sided	6" x 6"	7.95	7.19	6.59
616307	21-353	Double-sided	6" x 9"	16.95	15.49	13.95

## BELLIN DYNAMIC SYSTEMS, INC. Surface Mount Proto Boards

Easy, cost-effective and versatile Snap-Apart™ solution from Bellin Dynamic Systems.

- Board thickness: 0.031"
- Size: 7.6"L x 5.0"W
- Compatible w/ .100" single/dual row male headers (see pg 54)



### Small SMT

\*Web Code: HDS

Part No.	Mfr. P/N	Board Description	1	5
215491	B502	160 SMT pattern, SOT/SOIC/TSOP/MSOP/DPAK & more ...	\$39.95	\$36.95
227344	B513	300 SMT pattern, SC90, SOT23-6, 323-6, TSOP, MSOP8, 10+	44.95	39.95

### SOIC

215520	B505	60 SOIC SMT pattern, SOIC 8, 14, 16, 24, 32, 40 & more ..	\$44.95	\$39.95
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## TopMax II High Speed Universal Programmer

- USB interface
- 48-pin ZIF socket
- Input voltage: 5V, 3.3V, 2.7V, 1.8V
- No. of devices supported: 15,000+
- Supports: NAND Flash Memory, Standard Flash Memory, EPROM, EEPROM, Serial PROM, GAL, FPGA, MCU



Part No.	Mfr. Part No.	Description	1	5
2110158	TOPMAXII	.....	\$794.95	

\*For additional products, availability and specifications visit [Jameco.com](http://Jameco.com) and enter the Web Code in the product search box



Order by Phone at 1-800-831-4242 or Online at [www.Jameco.com](http://www.Jameco.com)