



SchmartBoard™ - *"Electronic Circuit Building Blocks"*

***"ez"* Product Catalog**

www.schmartboard.com

SchmartBOARD|ez™

5) Two problems impede people's ability to hand solder surface mount components. First, placing and holding the components in place correctly on the pad surface, and second, hand soldering in such small confined areas without creating short circuits.

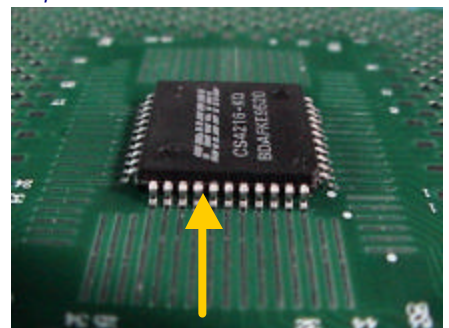
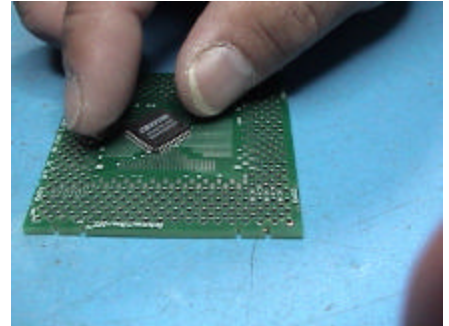
SchmartBoard/ez's patent pending technology solves these issues in the following way. Unlike all other circuit boards, the solder mask is higher than the pads, not lower. What this does is create canals. The walls of the canal are made by the solder mask, and the floor of the canal is the pad surface. The legs of the IC fit into this canal, thus allowing easy hand placement of the chip legs onto the pads.

To solder the IC, one uses a fine tip soldering iron, but no additional solder is required. Using the soldering iron, one heats up the existing solder on the pads in each of the canals and pushes the soldering iron from the lateral end

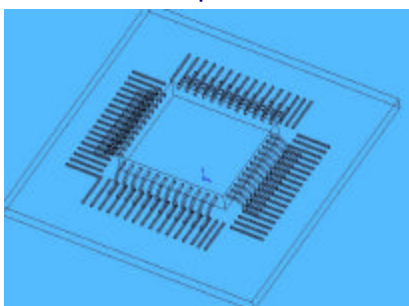
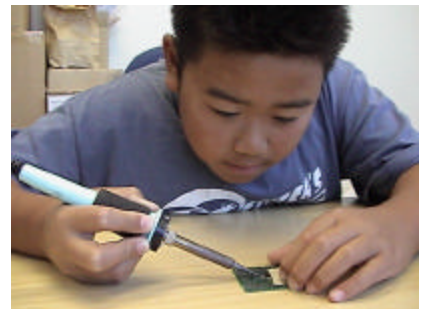
of the canal to the medial end until the iron touches the chip's leg. The solder stays in the canal, thus assuring that no shorts are created. This is repeated for each canal that has a leg to be soldered. In the case of Ball Grid Arrays

Integrated Circuits, the BGA is easily placed in the same manner as the ICs but a heat gun is used to heat up the existing solder on the pads instead of a soldering iron...

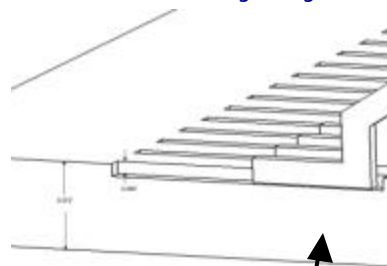
SchmartBoard/ez™ is so simple that a ten year old can pick up a soldering iron for the first time, and hand-solder a .4mm IC, more quickly and flawlessly than the vast majority of engineers who aren't using SchmartBoard/ez™. Hand soldering surface mount components is now accessible to virtually anyone.



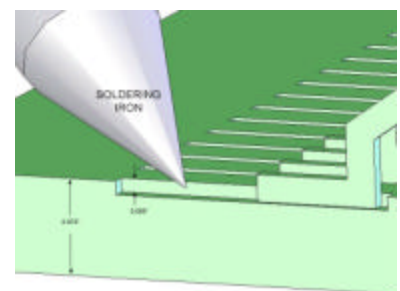
Chip legs are in the canals, thus touching the pads and holding the chip in place



Top View, Chip in place on SchmartBoard/ez™



Cross Section-chip legs on the pads, in the SchmartBoard/ez™ canals



Soldering Iron pushing solder towards chip legs in the canal

Through Hole

201-0001-01 Through hole. 0.1" SPACING WITH 0.05" OFFSET, 2" X 2" GRID
100% support of the through-hole components with the 0.1" spacing pitch. 12 ground holes are connected a copper plane on the bottom side. Components such as capacitor, resistor, diode, inductor, crystal, headers, jumpers, fuse, transistors, voltage regulators, DIP IC 70 pins or sockets, DIP switches, relay, RJ11, RJ45 connector...etc. are supported. **\$5.00**
910-0001-01 10 Pack of 201-0001-01 \$40.00

201-0002-01 Through hole 2mm SPACING WITH 1mm OFFSET, 2" X 2" GRID
100% support of the through-hole components with the 2mm spacing pitch. 12 ground holes are connected a copper plane on the bottom side. Components such as capacitor, resistor, diode, inductor, crystal, headers, jumpers, fuse, transistors, voltage regulators, DIP IC 70 pins or sockets, DIP switches, relay, RJ11, RJ45 connector...etc. are supported. **\$5.00**
910-0002-02 10 Pack of 201-0002-01 \$40.00

201-0301-01 Through hole. 0.1" SPACING WITH 0.05" OFFSET, 8" X 8" GRID
This board supports 100% of through-hole components with the 0.1" spacing pitch. 40 ground holes are connected to a copper plane on the bottom side. Components such as capacitors, resistors, diodes, inductors, crystals, headers, jumpers, fuses, transistors, voltage regulators, DIP IC 70 pins or sockets, DIP switches, relay, RJ11, RJ45 connector...etc. are all supported. **\$50.00**

Discrete Surface Mount

202-0034-01 EZ Discrete #1 \$9.99
Supports 0201,0603,0805,1206,1210,1608,1812,2010,2512,CAES-A,B,C.
912-0034-01 10 Pack of 202-0034-01 \$80.00

202-0035-01 EZ Discrete #2 \$9.99
Supports SOT23-3,5,6,SC70-5,6,DPAK,D2PAK,SOT223,TO263-7,SOT89,0805,1206,CASE-A,B,C,D,E.
912-0035-01 10 Pack of 202-0035-01 \$80.00

SO/SOP Packages

202-0004-01 SO, 4 - 56 PINS, 2" X 2" GRID "SchmartBoard|ez" Technology
Support up to 56 pins SO package IC with 0.050" pitch, 20 pieces of 0603 package and some through-hole passive components. 12 ground holes are connected a copper plane on the bottom side. **\$9.99**
912-0004-01 10 Pack of 202-0004-01 \$80.00

202-0005-01 SOP, 4 - 72 PINS 0.8MM PITCH, 2" X 2" GRID "SchmartBoard|ez" Technology
Support up to 72 pins SO, SOP, QSOP, SSOP, TSSOP, PSSOP package IC with 0.8mm pitch, 30 pieces of 0603 package and some through-hole passive components. 14 ground holes are connected a copper plane on the bottom side. **\$9.99**
912-0005-01 10 Pack of 202-0005-01 \$80.00

202-0006-01	SOP, 4 - 72 PINS 0.65MM PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support up to 72 pins SO, SOP, QSOP, SSOP, TSSOP, PSSOP package IC with 0.65mm pitch, 37 pieces of 0603 package and some through-hole passive components. 14 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0006-01	10 Pack of 202-0006-01	\$80.00
202-0007-01	SOP, 4 - 72 PINS 0.5MM PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support up to 72 pins SO, SOP, QSOP, SSOP, TSSOP, PSSOP package IC with 0.5mm pitch, 43 pieces of 0603 package, 8 pieces of 0805 package and some through-hole passive components. 6 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0007-01	10 Pack of 202-0007-01	\$80.00
202-0008-01	SOP, 4 - 72 PINS 0.4MM PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support up to 72 pins SO, SOP, QSOP, SSOP, TSSOP, PSSOP package IC with 0.4mm pitch, 23 pieces of 0603 package, 10 pieces of 0805 package and some through-hole passive components. 10 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0008-01	10 Pack of 202-0008-01	\$80.00
202-0013-01	SOP, 4 - 72 Pins 0.635mm Pitch, 2" X 2" Grid "SchmartBoard ez Technology"	
	SchmartBoard ez Version Support up to 72 pins SO, SOP, QSOP, SSOP, TSSOP, PSSOP package IC with 0.635mm pitch, 23 pieces of 0603 package, 10 pieces of 0805 package and some through-hole passive components.	\$9.99
912-0013-01	10 Pack of 202-0013-01	\$80.00
QFP Packages		
202-0009-02	QFP, 32 - 64 PINS 0.8MM PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support up to 64 pins QFP, TQFP, PQFP package IC with 0.8mm pitch, 38 pieces of 0603 package, and some through-hole passive components. 22 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0009-01	10 Pack of 202-0009-01	\$80.00
202-0010-02	QFP, 36-100 PINS 0.65MM PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support 100 pins QFP, TQFP, PQFP package IC with 0.65mm pitch, 10 pieces of 0603 package, and some through-hole passive components. 9 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0010-02	10 Pack of 202-0010-02	\$80.00
202-0011-01	QFP, 32 - 100 PINS 0.5MM PITCH, 2" X 2" GRID	
	Support up to 100 pins QFP, TQFP, PQFP package IC with 0.5mm pitch, 20 pieces of 0603 package, and some through-hole passive components. 6 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0011-01	10 Pack of 202-0011-01	\$80.00

QFP Packages

202-0014-01	SchmartBoard ez QFP 64-100 Pins, 0.4mm Pitch "SchmartBoard ez Technology"	
	Support 64-100 pins QFP,TQFP,PQFP package IC with 0.4mm pitch, 20 pieces of 0603 package, and some though-hole passive components. 6 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0014-01	10 Pack of 202-0014-01	\$80.00
202-0030-01	SchmartBoard ez QFP 120-144 Pins, 0.8mm Pitch "SchmartBoard ez Technology"	
	Support 120-144 pins QFP,TQFP,PQFP package IC with 0.8mm pitch	20.00
912-0030-01	5 Pack of 202-0030-01	\$80.00
202-0031-01	SchmartBoard ez QFP 112-160 Pins, 0.8mm Pitch "SchmartBoard ez Technology"	
	Support 112-160 pins QFP,TQFP,PQFP package IC with 0.65mm pitch	\$20.00
912-0031-01	5 Pack of 202-0031-01	\$80.00
202-0032-01	SchmartBoard ez QFP 128-240 Pins, 0.8mm Pitch "SchmartBoard ez Technology"	
	Support 128-240 pins QFP,TQFP,PQFP package IC with 0.8mm pitch	\$20.00
912-0032-01	5 Pack of 202-0032-01	\$80.00

PLCC Packages

202-0012-01	PLCC, 20 - 84 PINS 0.05" PITCH, 2" X 2" GRID "SchmartBoard ez Technology"	
	Support up to 84 pins PLCC package IC with 0.05" pitch, 26 pieces of 0603 package, and some though-hole passive components. 14 ground holes are connected a copper plane on the bottom side.	\$9.99
912-0012-01	10 Pack of 202-0012-01	\$80.00

Chip Scale Packages

202-0016-01	SchmartBoard ez 12 Pins to 24 Pins .5mm & .65mm	\$9.99
912-0016-01	10 Pack of 202-0016-01	\$80.00
202-0017-01	SchmartBoard ez 10 Pins and 32 pins, .5mm Pitch	\$9.99
912-0017-01	10 Pack of 202-0017-10	\$80.00
202-0018-01	SchmartBoard ez 8 and 48 pin 0.5mm Pitch	\$9.99
912-0018-01	10 Pack of 202-0018-01	\$80.00
202-0019-01	SchmartBoard ez 56 Pins, 0.5mm Pitch	\$9.99
912-0019-01	10 Pack of 202-0019-01	\$80.00
202-0020-01	SchmartBoard ez 64 Pins, 0.5mm Pitch	\$9.99
912-0020-01	10 Pack of 202-0020-01	\$80.00

BGA Packages

\$45.99

202-0025-01 SchmartBoard | ez Version BGA 400 Pins, 1.27mm Pitch

202-0026-01 SchmartBoard | ez Version BGA 400 Pins, 1.0 mm Pitch

I/O and Power Boards (Non-EZ Boards)

\$2.50

I/O and Power Connectors

201-0100-01 THROUGH HOLE POWER AND GND STRIP 0.5" X 2" GRID Connect the power source or ground.

910-0100-01 10 Pack of 201-0100-01 \$20

201-0101-01 THROUGH HOLE DRIVE POWER CONN AND POWER JACK 0.5" X 2" GRID-Support 1 piece drive power connector and 1 piece power jack. 12 ground holes are connected a copper plane on the bottom side.

910-0101-01 10 Pack of 201-0101-01 \$20

201-0102-01 THROUGH HOLE ATX POWER CONNECTOR 0.5" X 2" GRID-Support 1 piece ATX 20 pins power connector. 10 ground holes are connected a copper plane on the bottom side.

910-0102-01 10 Pack of 201-0102-01 \$20

201-0103-01 THROUGH HOLE. AUDIO/RCA JACK 0.5" X 2" GRID

Support 2 RCA jack and 1 3.5mm phone jack. 4 ground holes are connected a copper plane on the bottom side.

910-0103-01 10 Pack of 201-0103-01 \$20

201-0104-01 THROUGH HOLE DB 25 CONNECTOR 0.5" X 2" GRID

Support DSUB connector from 9 to 25 pins. 4 ground holes are connected a copper plane on the bottom side.

910-0104-01 10 Pack of 201-0104-01 \$20

201-0105-01 THROUGH HOLE JTAG 20 PINS 0.1" SP AND IEEE1394 CONNECTOR 0.5" X 2" GRID Support 1 JTAG connector 20 pins and 1 IEEE1394 connector. 4 ground holes are connected a copper plane on the bottom side.

910-0105-01 10 Pack of 201-0105-01 \$20

201-0106-01 THROUGH HOLE RGB 15 PINS CONNECTOR 0.5" X 2" GRID-Support 1 RGB 15 pins connector. 4 ground holes are connected a copper plane on the bottom side.

910-0106-01 10 Pack of 201-0106-01 \$20

201-0107-01 THROUGH HOLE SWITCHES T.H. 0.5" X 2" GRID

Support 4 different types of switches. 12 ground holes are connected a copper plane on the bottom side.

910-0107-01 10 Pack of 201-0107-01 \$20

201-0108-01 THROUGH HOLE RJ11/45 AND USB CONNECTOR 0.5" X 2" GRID-Support 1 RJ11 OR RJ45 connector and 1 USB Type B connector. 8 ground holes are connected a copper plane on the bottom side.

910-0108-01 10 Pack of 201-0108-01 \$20

SchmartModule

Populated RS-232 SchmartModule

Module 2 channels(2 transmit and 2 receive), RS232 and V.28-speeds up to 230Kb., Operates from a single 5V Power source, ESD protected in excess of +/- 15Kv. on all I/O lines, 4 LEDs(2 for transmit, 2 for receive), Preinstalled headers for transceiver lines, Preinstalled headers for +5v and Ground

\$15.00

Combo Packs

SO Design Kit "EZ"- 900-0100-01

89.99

202-0004-01 (Qty 2)_202-0005-01 (Qty 2)_202-0006-01 (Qty 2)

202-0007-01 (Qty 2)_202-0008-01 (Qty 2)_202-0013-01 (Qty 2)

QFP/PLCC Design Kit "EZ" 900-0101-01

\$79.99

202-0009-02 (Qty 2)_202-0010-02 (Qty 2)_202-0011-01 (Qty 2)

202-0012-01 (Qty 2), 202-0014-01 (Qty 2)

Chip Scale Design Kit "EZ" - 900-0102-01

\$79.99

202-0016-01 (Qty2)_202-0017-01 (Qty2)_202-0018-01 (Qty2)

202-0019-01 (Qty2)_202-0020-01 (Qty2)

Accessories

920-0003-01 **Quantity 20 SchmartBridges(Connect Schmartboards together) \$5.00**

920-0016-01 **20 Headers, 10 2" Jumper Wires \$5.00**

920-0005-01 **20 Headers, 10 3" Jumper Wires \$5.00**

920-0006-01 **20 Headers, 10 5" Jumper Wires \$5.00**

920-0007-01 **20 Headers, 10 7" Jumper Wires \$5.00**

920-0017-01 **Qty. 100 2" Jumpers \$38.00**

920-0008-01 **Qty. 100 3" Jumpers \$38.00**

920-0009-01 **Qty. 100 5" Jumpers \$38.00**

920-0010-01 **Qty. 100 7" Jumpers \$38.00**

920-0011-01 **Qty. 10 0.1" Spacing 40 Single Row Headers \$3.00**

920-0012-01 **Qty. 10 0.1" Spacing 40 Dual Row Headers \$6.00**

920-0013-01 **DB89 Male to DB89 Female, 6' Serial Cable \$6.99**

920-0014-01 **USB 2.0 Type A to Type B 6' USB Cable \$6.99**

920-0015-01 **USB 2.0 Type A to Mini Type B 6' Cable \$6.99**