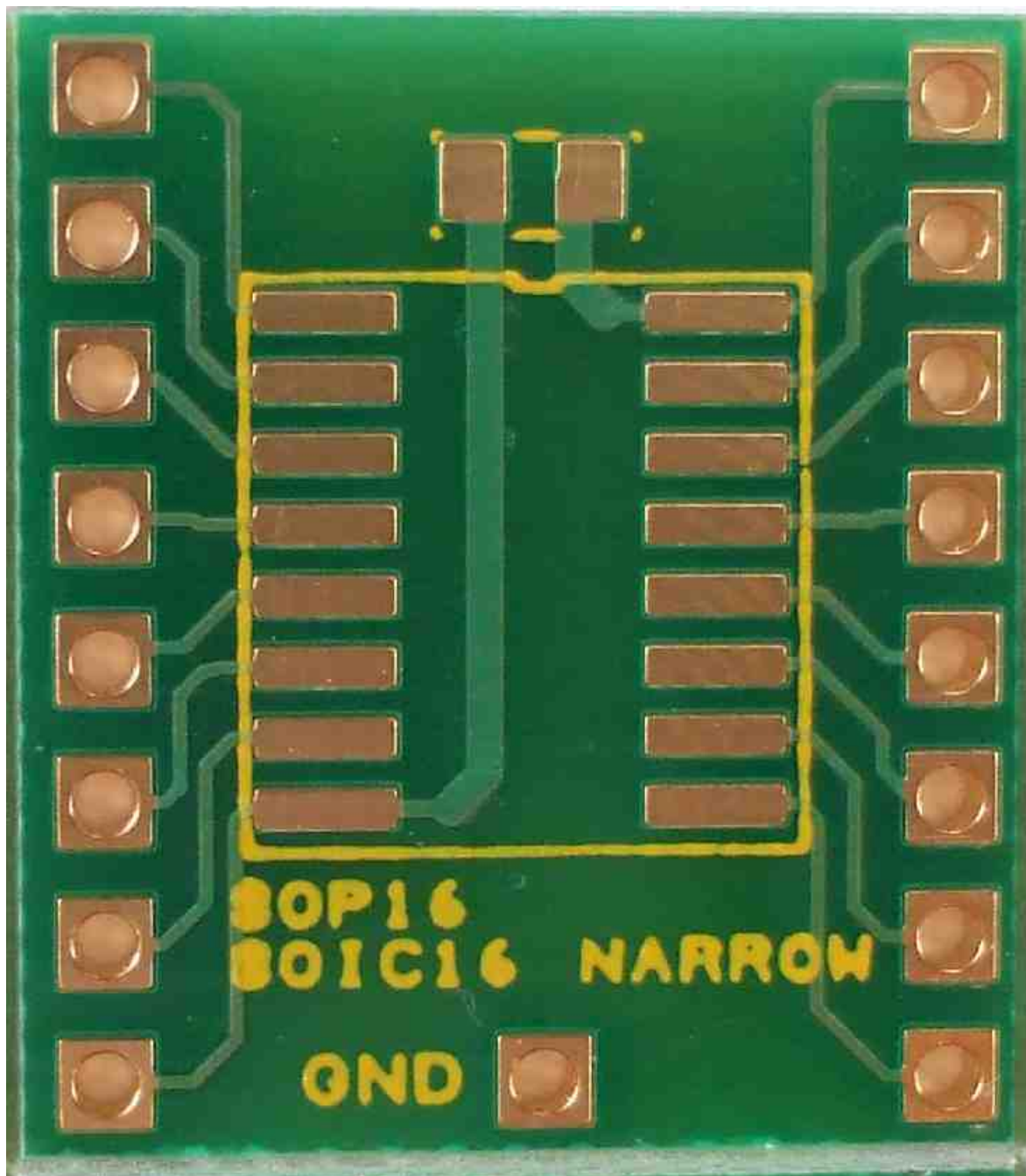


BREADBOARD ADAPTERS

CATALOG



INDEX

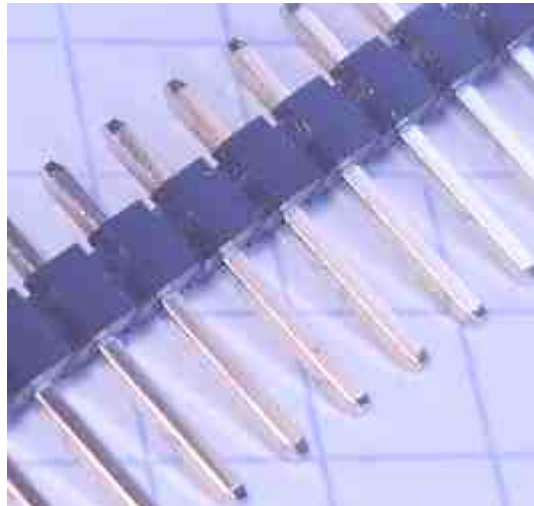
SMD ADAPTER ASSEMBLING

2 pin	SMA / SOD128		
	SMB / MELF		
	SMC / 2512		
	MINIMELF /1206		
	0603		
	0805 / MICROMELF		
	SOD123 / SOD123F		
	SOD323 / SOD523		
	PLCC-2		
	SOT23-3		
3 pin	SOT323 / SC70		
	SOT89		
	DPAK		
	SOT143		
4 pin	SOP-4		
	SOT223		
	SOT23-5		
5 pin	SOT23-6	SOT223-5	
6 pin	SOT363 / SC88		
	SC70-6		
	SOT666		
	SOT23-8		
	SOIC8 MINI		
	SOIC8		
	TSSOP8		
	MSOP8		
			SSOP8 / SOT553 /SC85
		GENERIC USE PITCH 1.27 mm	
10 pin	MSOP10		
14 pin	SOIC14		
	TSSOP14		
16 pin	SOIC16 NARROW / SOP16		
	SOIC16 WIDE		
	TSSOP16		
	GENERIC USE PITCH 0.50 mm		
	GENERIC USE PITCH 0.635 mm		
	GENERIC USE PITCH 0.65 mm		
20 pin	SOIC20		
	TSSOP20		
24 pin	SOIC24		
28 pin	SOIC28		
44 pin	TQFP44		

ADAPTER ASSEMBLING

Example: 8 pin SOIC adapter

Cut the 40 pin connector in 2 pieces, of 4 pin each, and insert them in the breadboard.



Insert now the adapter and solder the eight pins.

This method, ensure that the connectors will be parallel and the pins after soldering, will be in the right position.

Never touch the gold surface with fingers. Fingerprints over the pads, make the soldering process more difficult.

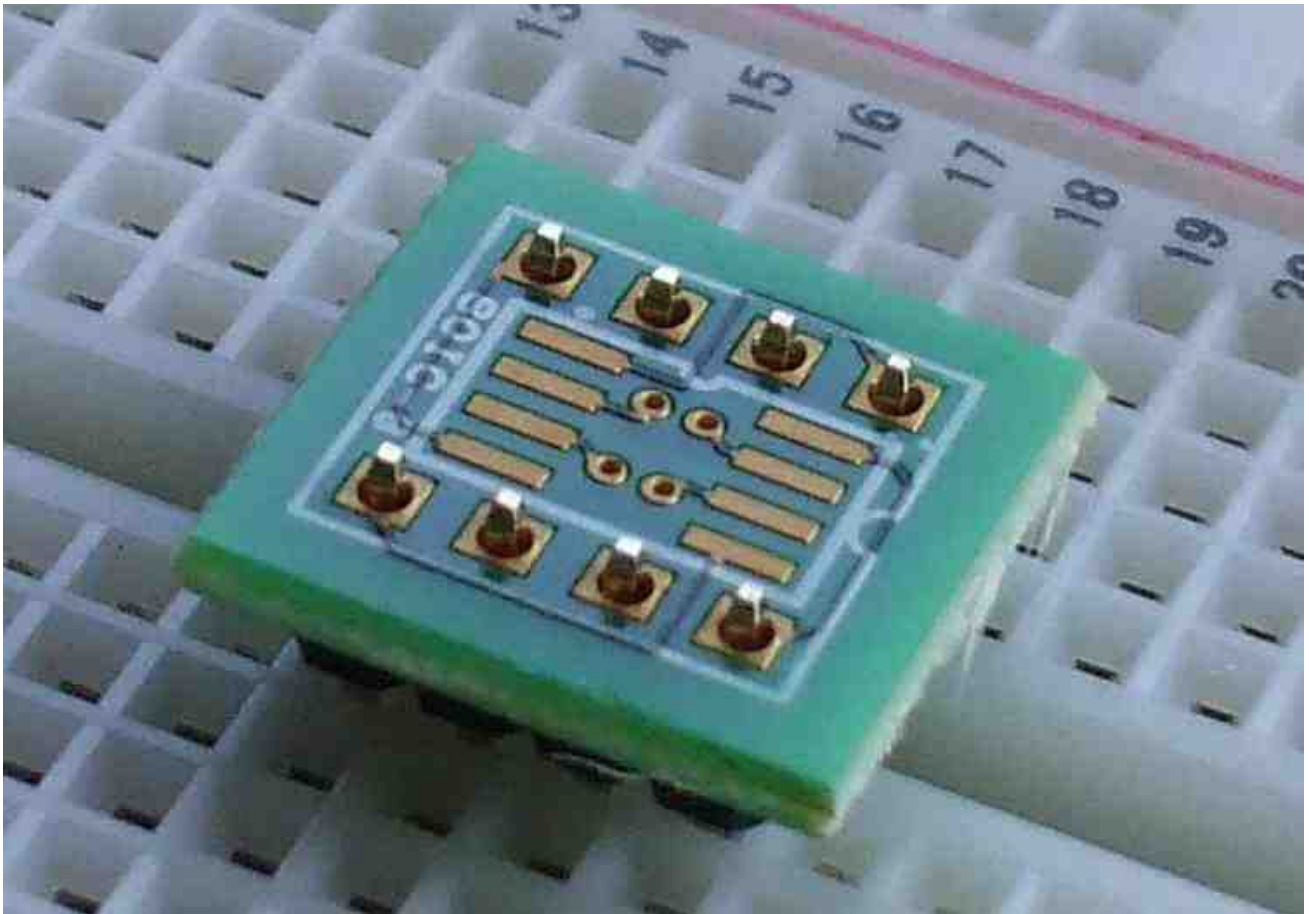
Before or after soldering the connector, you can cut about 1 mm to the top of each pin.

Instead of cutting the pins, you can use a small wire or wood as a spacer, between the pcb and connector. The pcb will be in a higher position, before soldering and remove it later.

Is useful to use non corrosive soldering liquid flux.

Now you have a firm support for soldering the chip to the adapter.

Position the chip over the adapter using very fine tweezers.



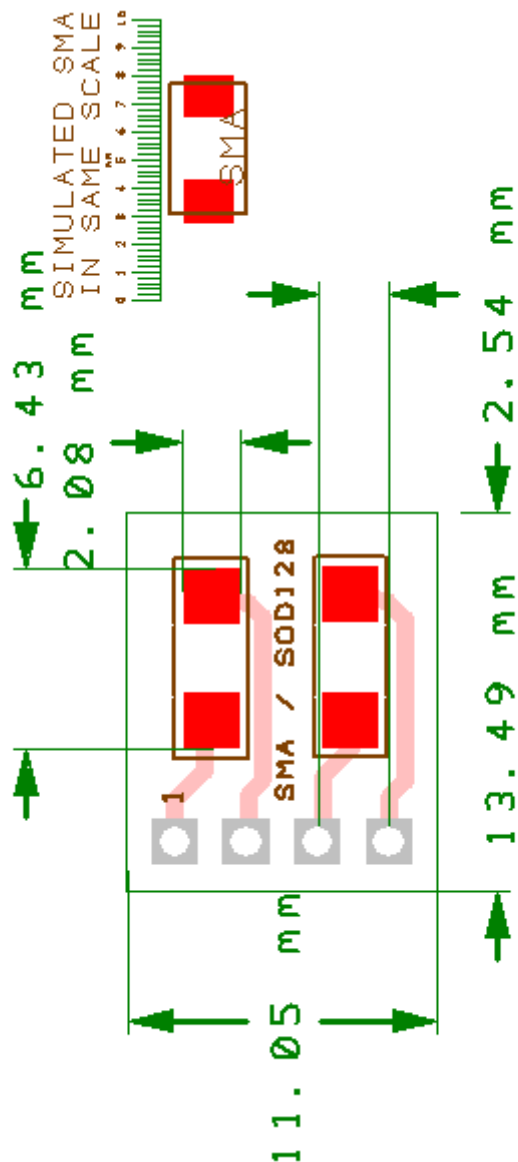
SMA ADAPTER / SOD128 ADAPTER

Breadboard adapter for SMA and SOD128 devices

Our ref.: 02134A

PCB dimensions: 11,1 x 13,5 x 1,5 mm

Accept one row connector with 2,54 mm pitch, 4 pins, breadboard compatible.



If the scale is reduced until the rule has exactly 10mm, the drawing will be in a 1:1 scale. This can allow to verify your chip dimensions, against our adapter.

Links:

<http://www.fairchildsemi.com/products/discrete/packaging/sma.html>

<http://www.diodes.com/datasheets/ap02002.pdf>

<http://web.centalsemi.com/product/packages/#smd>

[Link : tips to mount the connector](#)

The adapter board can accept two units SMA or SOD128 devices: unit 1 between pins 1 and 2; unit 2 between pins 3 and 4.

The surface of pads in this adapter is chemical gold plated. Avoid fingerprints before soldering.

The adapter uses a FR4 pcb, has plated through holes and has a solder mask, to avoid shorts when hand soldered.

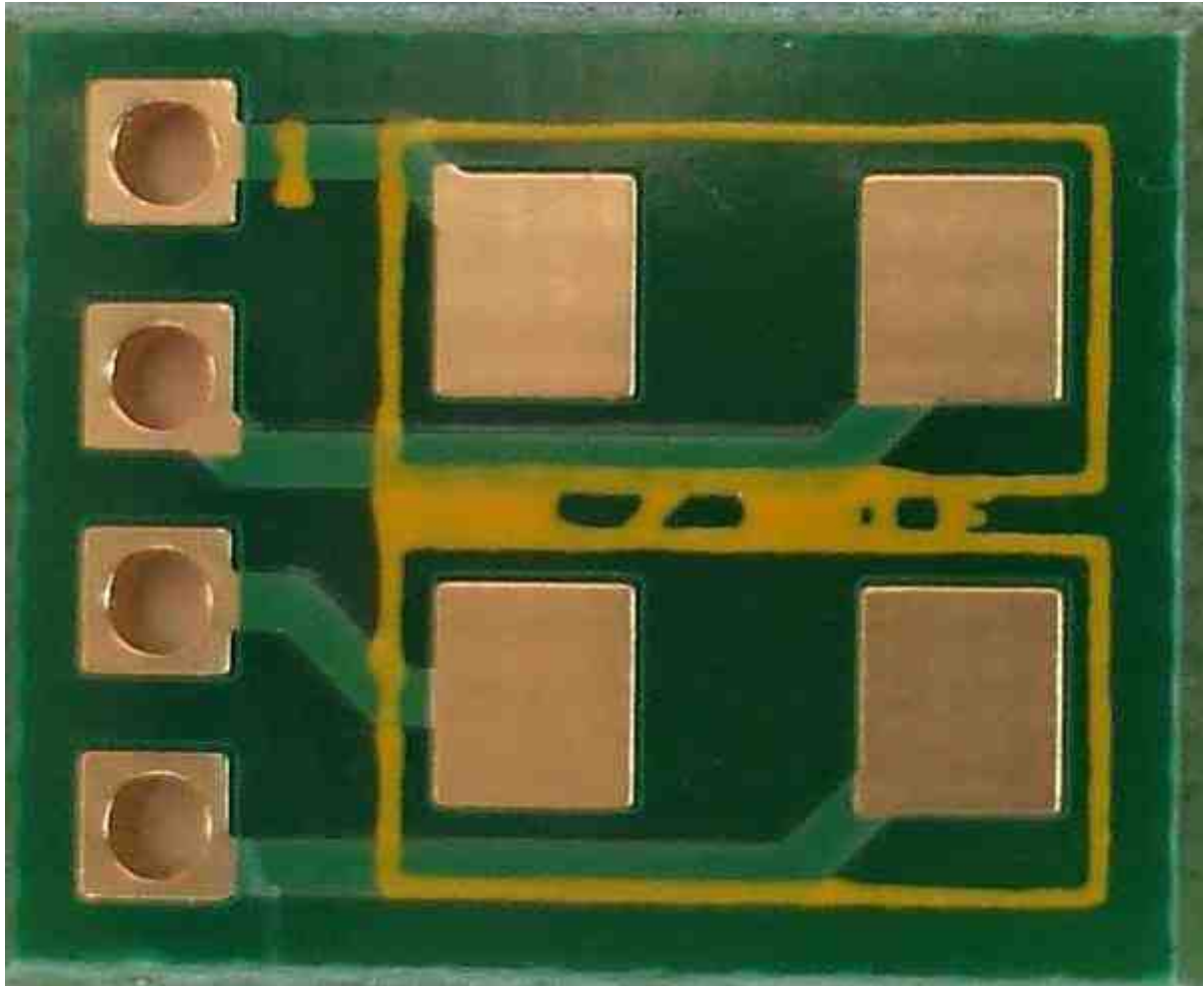
Bottom copper work in this adapter as a small heatsink.

Multiple PCB are supplied with contour scored, easy to break in individual adapters.

SMB ADAPTER / MELF ADAPTER

Breadboard adapter for SMB DO214AA / MELF

Our reference: 02851B



PCB dimensions: 13.5 x 11.1 x 1,5 mm

Product description: Breadboard adapter for SMB / MELF devices , for example for diodes, zeners and TVS diodes. This adapter accepts 2 SMB devices.

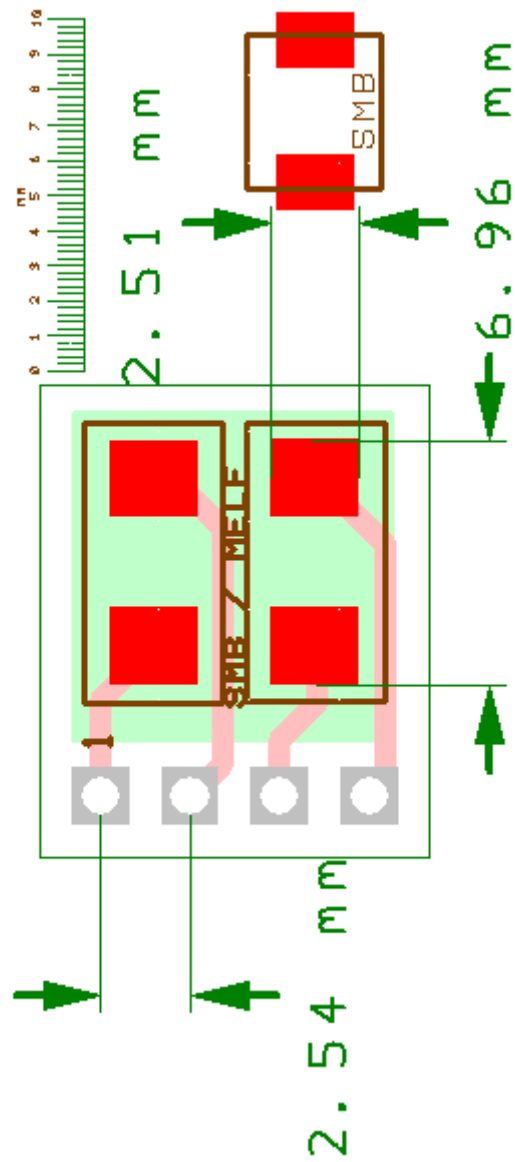
Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

PCB contour: The pcb contour is milled.

Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.



Usefull links

http://www.onsemi.com/pub_link/Collateral/403A-03.PDF

<http://www.vishay.com/docs/95017/smb.pdf>

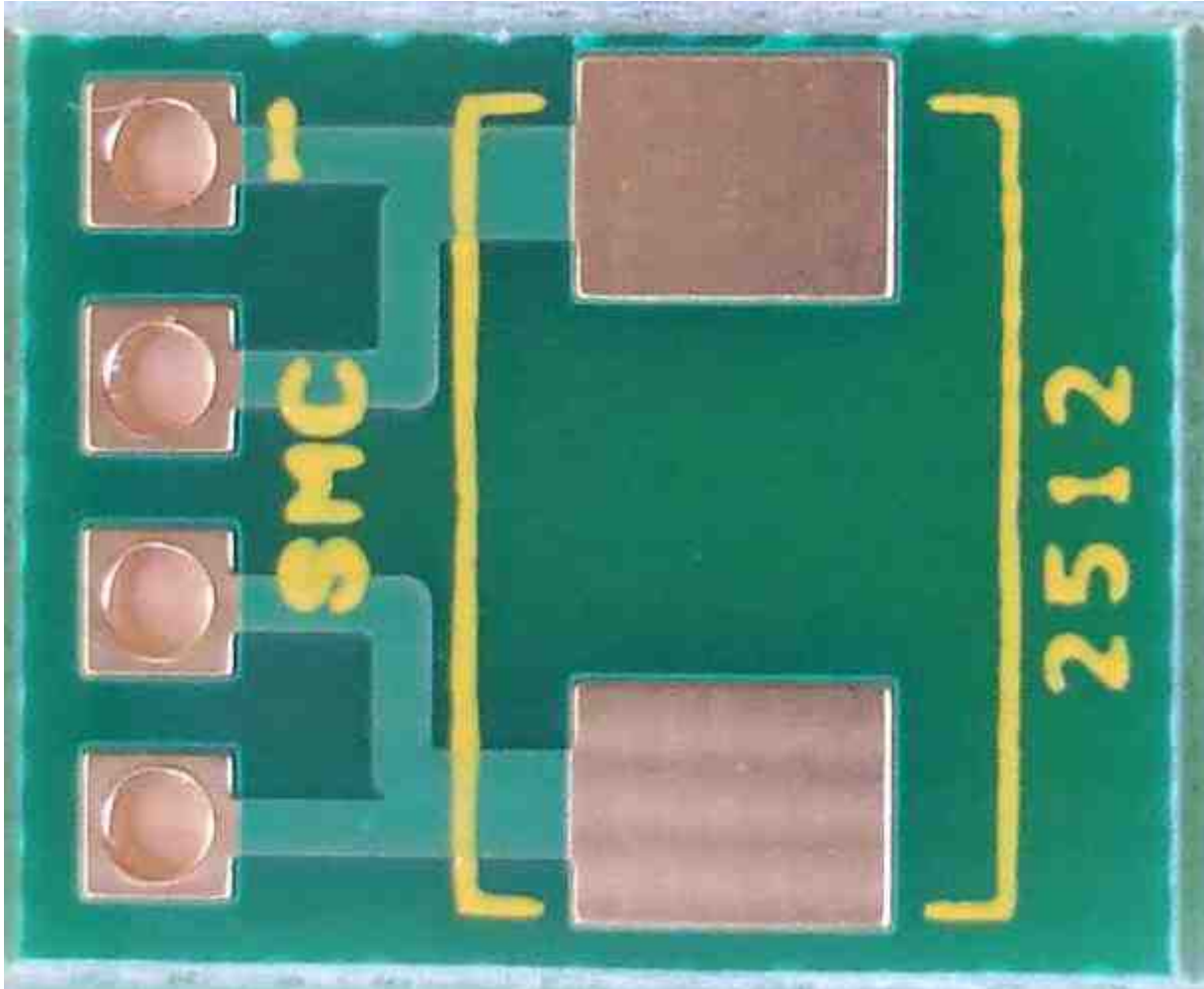
<http://www.fairchildsemi.com/dwg/DO/DO214AA.pdf>

http://www.diodes.com/pdfs/Ap02014_R1_Soldering.pdf

[Link : tips to mount the connector](#)

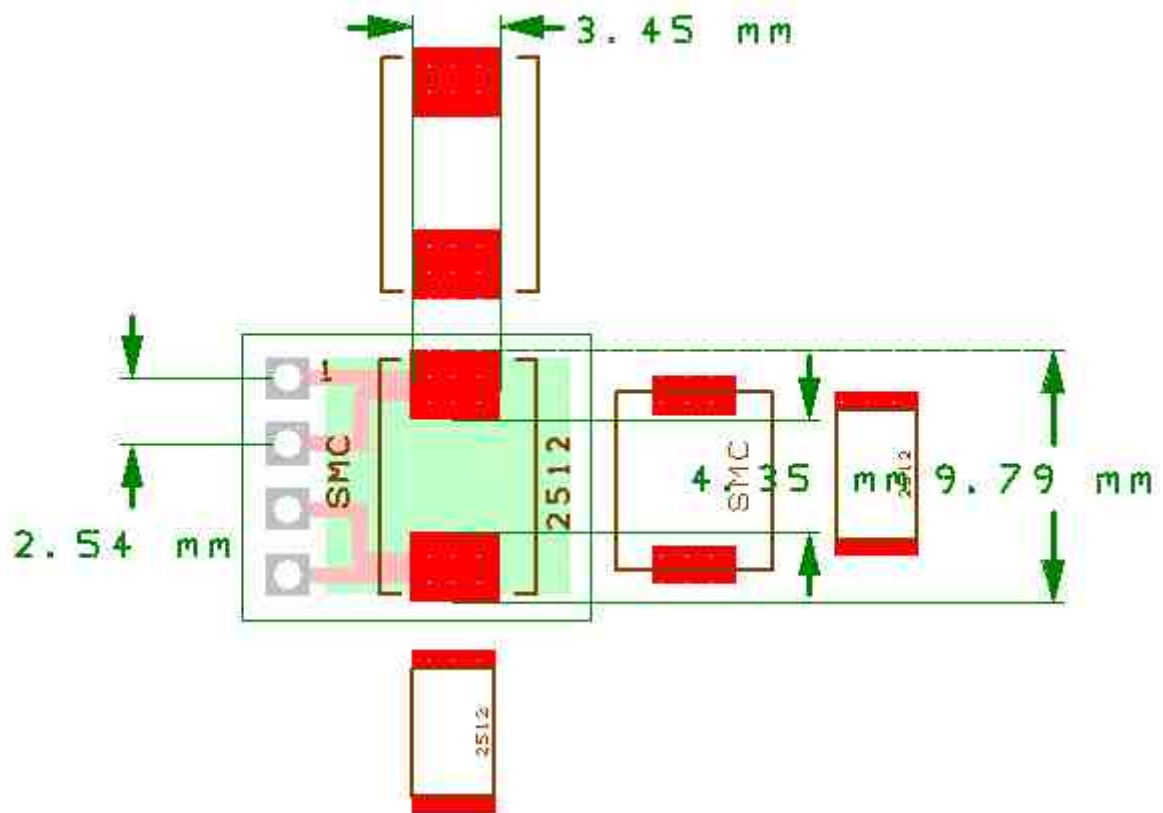
ADAPTER for SMC / 2512 packages

PCB dimensions: 13.5 x 11.05 x 1,5 mm
Our reference: 02287A



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.



Product description: Breadboard adapter for 2 units of SMC / 2512 packages
Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SMC package:

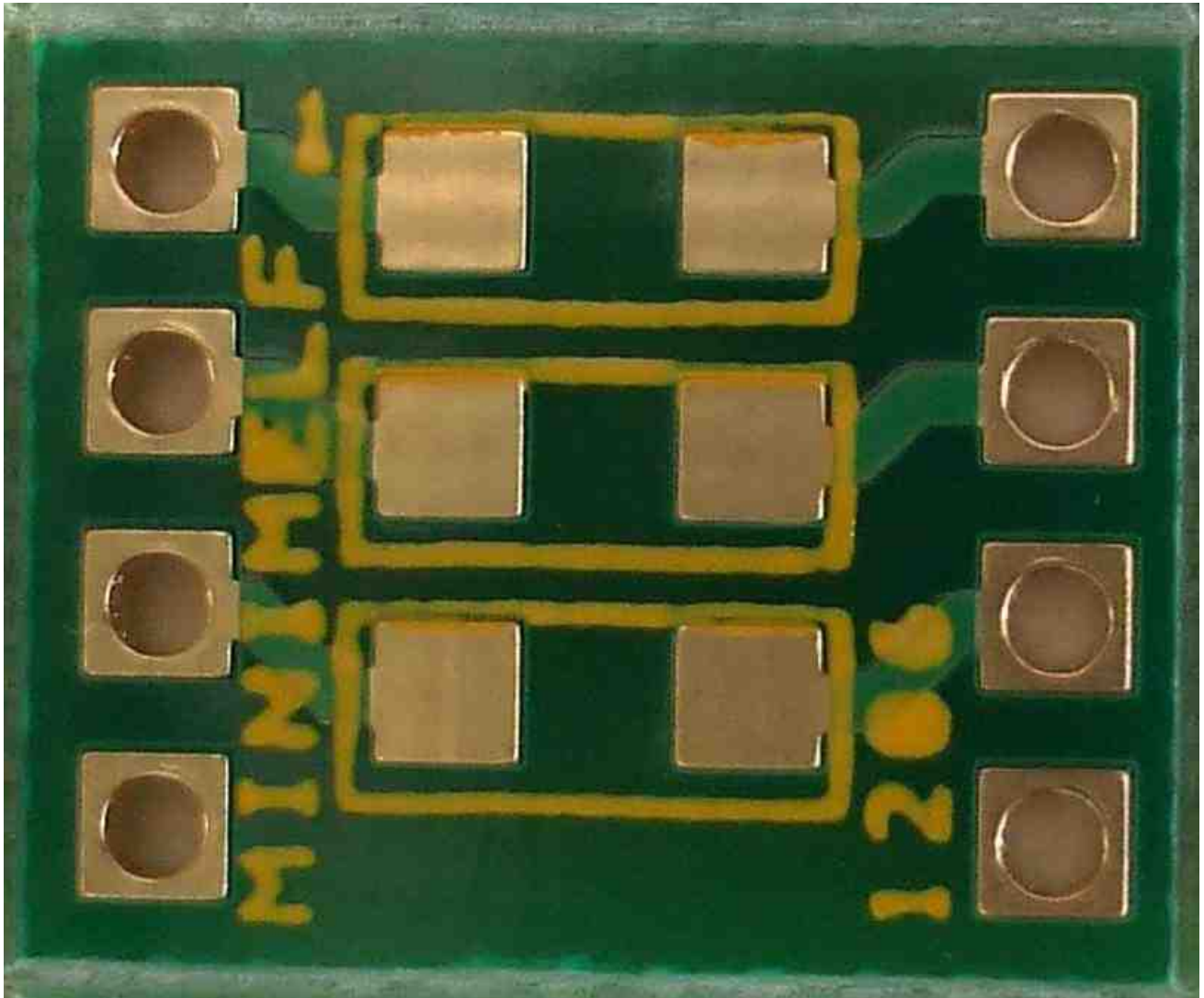
<http://www.centrasemi.com/PDFs/case/SMCPD.PDF>
<http://www.fairchildsemi.com/dwg/DO/DO214AB.pdf>
http://www.onsemi.com/pub_link/Collateral/403-03.PDF
<http://www.centrasemi.com/PDFs/case/SMCPD.PDF>
<http://diodes.com/datasheets/ap02001.pdf>
<http://www.vishay.com/docs/88589/88589.pdf>
http://www.nxp.com/documents/handling_instructions/discretos_packing.pdf

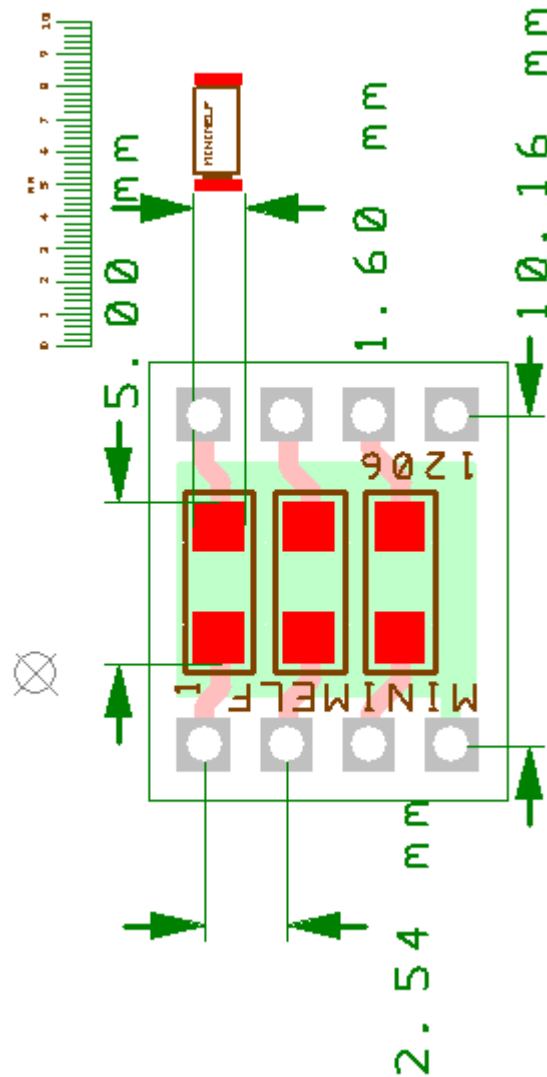
Links for 2512 package:

<http://www.panasonic.com/industrial/components/pdf/AOA0000CE1.pdf>
http://www.irctt.com/file.aspx?product_id=314&file_type=datasheet
<http://www.chipinductors.co.uk/pdf/ECM63.PDF>
<http://www.vishay.com/docs/31057/wslhigh.pdf>
http://www.bourns.com/pdfs/bourns_chip_resistors_arrays_sf.pdf
http://www.micro-ohm.com/surfacemount/ma12_chip.html

MINIMELF / SOD80C / 1206 ADAPTER

Breadboard adapter for 3 units of MINIMELF / SOD80C / 1206





Our reference: 02072A

PCB dimensions: 13.5 X 11.1 x 1,5 mm

Product description: Breadboard adapter for MINIMELF / SOD80C or 1206 devices , for example for diodes, zeners and TVS diodes. This adapter accepts 3 MINIMELF / SOD80C or 1206 devices.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

PCB contour: The pcb contour is scored.

Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.

Links for MINIMELF:

<http://www.diodes.com/datasheets/ap02002.pdf>

<http://www.vishay.com/docs/84013/minimelf.pdf>

http://www.fagorelectronica.es/semi/pdf/formatos/Rectificadores_Zener_TV5/minimelf.pdf

http://diotec.com/service/files/news031_minimelfline.pdf

Links for SOD80C:

http://www.nxp.com/documents/outline_drawing/sod080c_po.pdf

<http://www.fairchildsemi.com/dwg/SO/SOD80A.pdf>

Links for 1206:

<http://www.etgtech.com/pdf/oldspecs/ETG-1206.pdf>

http://www.dialight.com/Assets%5CBrochures_And_Catalogs%5CIndication%5CMDEI5981206WC.pdf

http://www.avagotech.com/pages/en/leds/surface_top_mount_mono_color_chipleds/1206_3.2_x_1.6mm_packages/

<http://www.panasonic.com/industrial/components/pdf/AOA0000CE1.pdf>

<http://www.elecsound-components.com/led/SMD/1206.pdf>

<http://www.lumex.com/products/detail/standard42>

http://www.everlight.com/datasheets/15-21-G6C-A0N1P2B0E-2T-AM_datasheet.pdf

Usefull links

http://www.diodes.com/pdfs/Ap02014_R1_Soldering.pdf

[Link : tips to mount the connector](#)

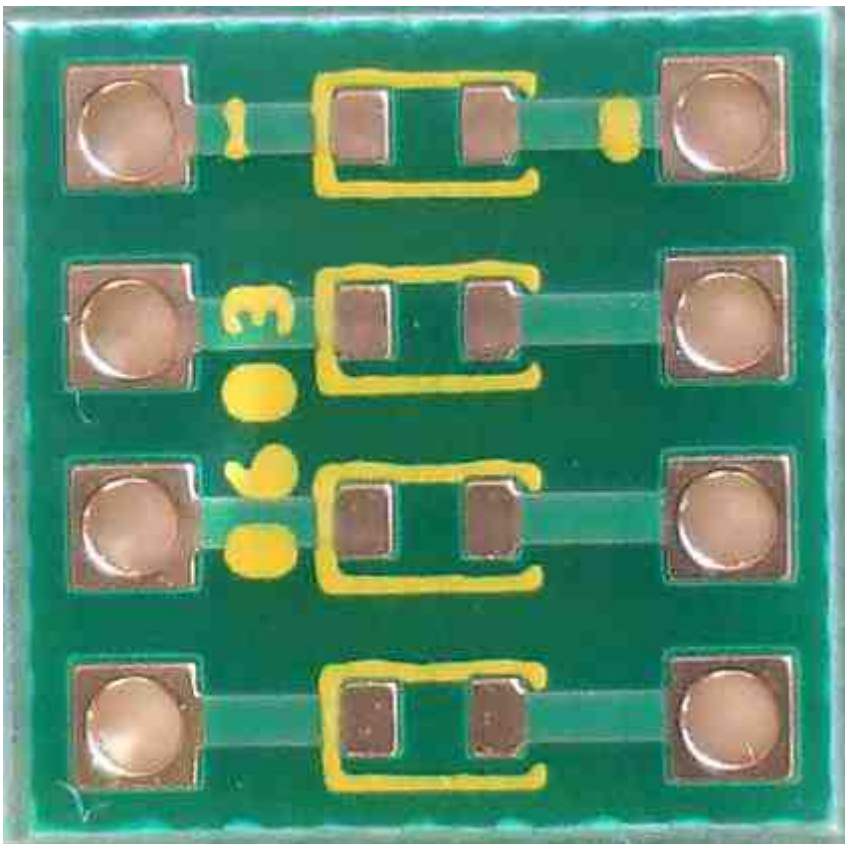
ADAPTER for 0603 devices

Dimensions of our adapter: 10.7 x 10.7 x 1,5 mm

Our reference: 02260A

Application: Is possible to connect until 4 independent devices.

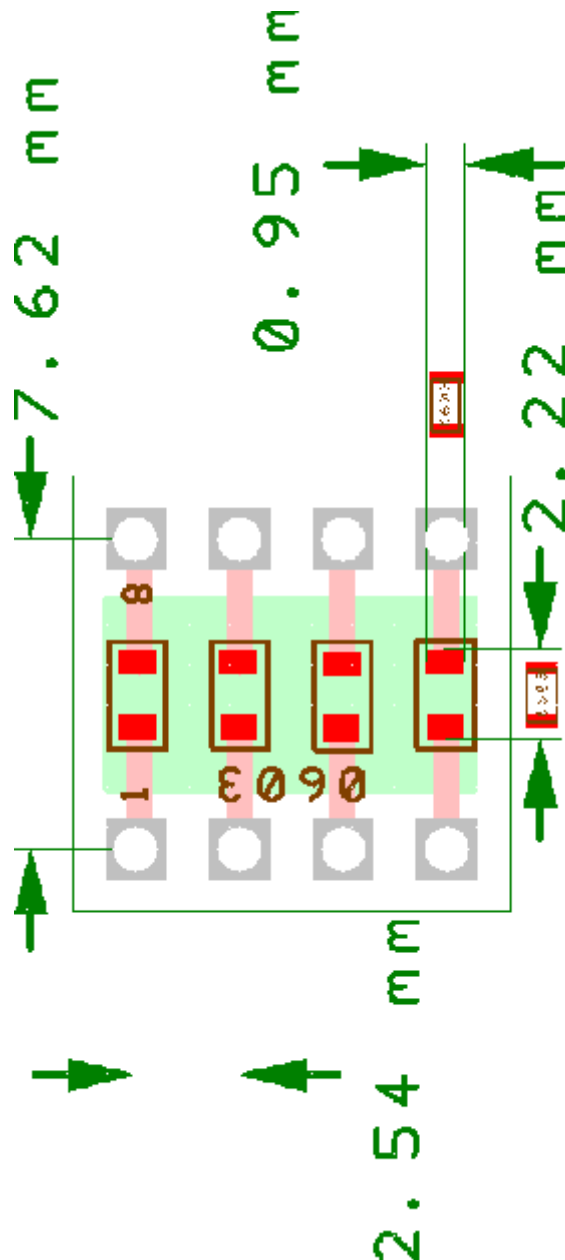
Examples: 2 RC circuits with 0603 package or resistor and diode circuits.



In the photo is possible to see the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a pitch so small as 0.65mm.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.



Product description: Breadboard adapter for 0603 devices mainly as resistors, capacitors, diodes and leds.

This adapter accepts row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Heatsink: bottom layer works as a small heatsink.

Application: Is possible to connect until 4 independent devices.

Application example: 2 RC circuits with 0603 package.

PCB contour is scored: if several units are supplied, is easy to break the block in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links about 0603:

<http://www.panasonic.com/industrial/components/pdf/AOA0000CE1.pdf>

<http://industrial.panasonic.com/www-data/pdf/AOA0000/AOA0000PE32.pdf>

http://www.prpinc.com/pdf/Chip_Pad_Layout_Sgl_Element.pdf

http://www.onsemi.com/pub_link/Collateral/AND8464-D.PDF

<http://www.murata.com/products/catalog/pdf/o05e.pdf>

<http://www.vishay.com/docs/28745/soldpads.pdf>

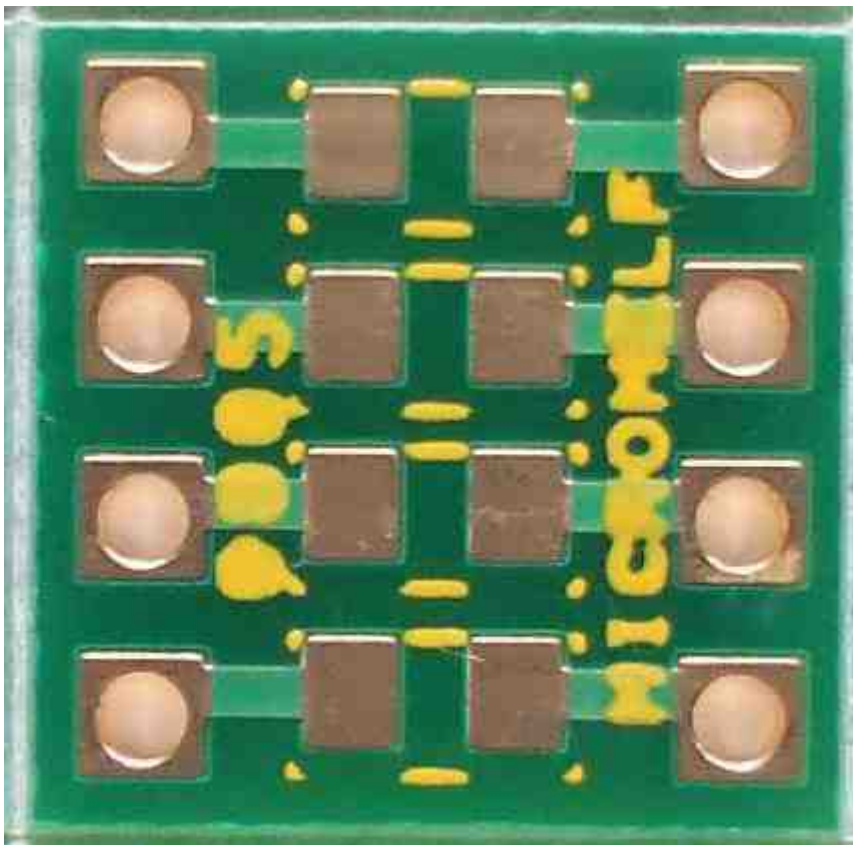
ADAPTER for 0805 or MICROMELF devices

Dimensions of our adapter: 10.7 x 10.7 x 1,5 mm

Our reference: 02005A

Application: Is possible to connect until any 4 independent devices in a 0805 or MICROMELF package.

Examples: 2 RC circuits with devices with 0805 package or resistor - diode circuits.



In the photo is possible to see the green solder mask as small windows around each pad and also protecting the tracks in this adapter.

Solder mask is more important for devices with a small pitch .

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Product description: Breadboard adapter for devices with 0805 or MICROMELF package mainly as resistors, capacitors, diodes and leds.

This adapter accepts row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

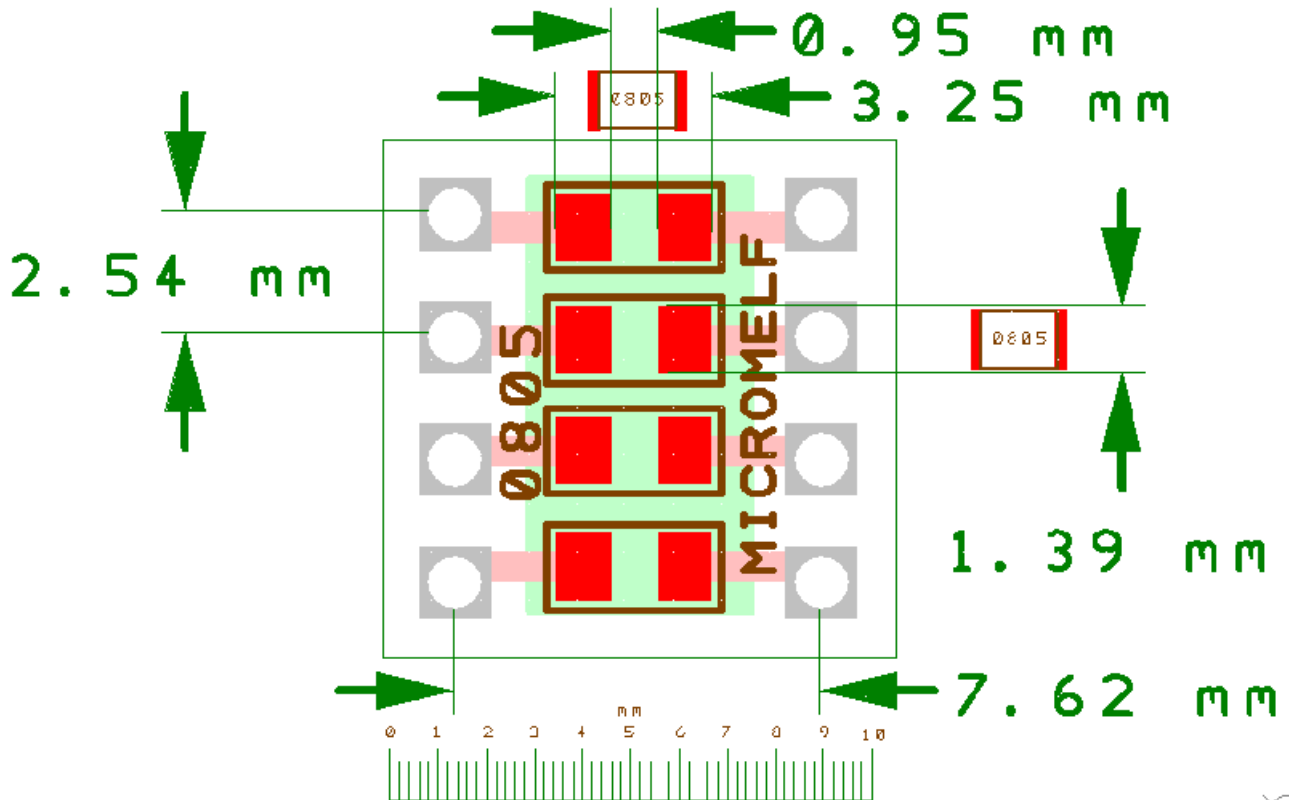
Heatsink: bottom layer works as a small heatsink.

Application: Is possible to connect until 4 independent devices. Application example: 2 RC circuits with 0805 package.

PCB contour is scored: if several units are supplied, is easy to break the block in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

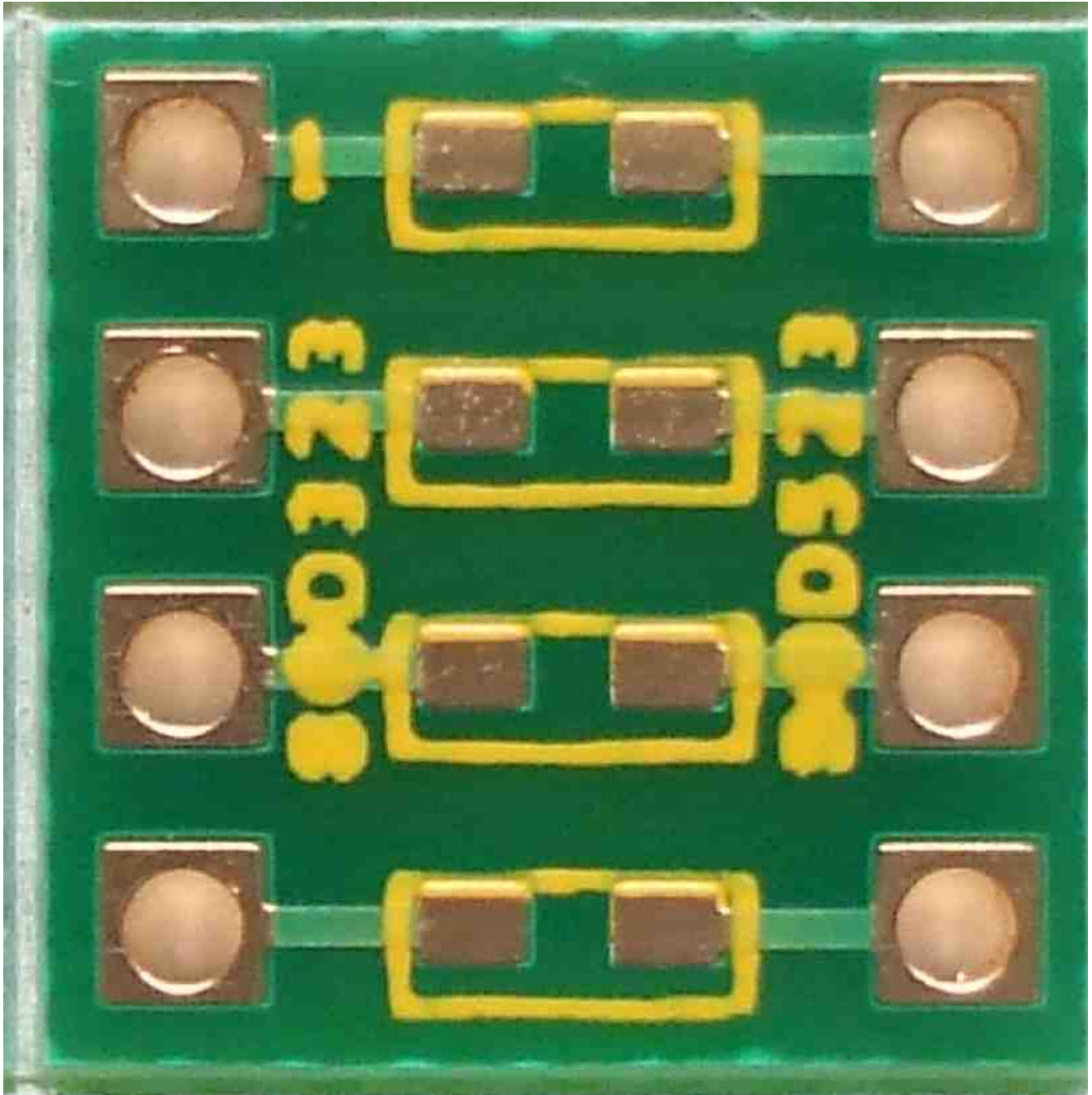


Links about 0805:

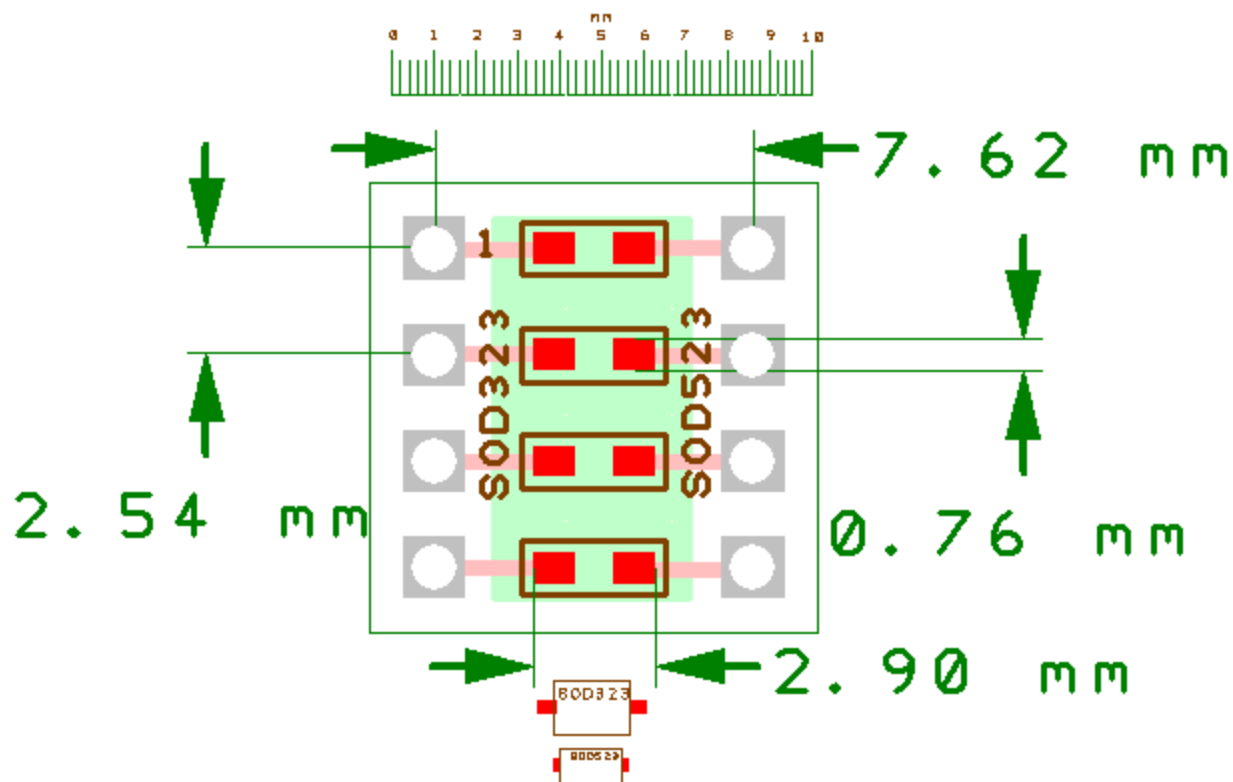
- <http://www.panasonic.com/industrial/components/pdf/AOA0000CE1.pdf>
- http://www.prpinc.com/pdf/Chip_Pad_Layout_Sgl_Element.pdf
- http://www.avagotech.com/pages/en/leds/surface_top_mount_mono_color_chipleds/0805_2.0_x_1.2mm_packages/
- <http://www.etgtech.com/pdf/oldspecs/ETG-0805.pdf>
- [http://www.dialight.com/Assets%5CBrochures And Catalogs%5CIndication%5CMDEI5980805.pdf](http://www.dialight.com/Assets%5CBrochures%20And%20Catalogs%5CIndication%5CMDEI5980805.pdf)
- <http://www.murata.com/products/catalog/pdf/o05e.pdf>
- <http://www.vishay.com/docs/28745/soldpads.pdf>

ADAPTER for SOD323 / SOD523 devices

PCB dimensions: 10.7 x 10.7 x 1,5 mm



Dimensions with simulated chips in the same scale (SOD323 /SOD523):



Our reference: 02145A

Product description: Breadboard adapter for SOD323 / SOD523 devices. Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Bottom layer: works as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for best soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOD323 /SOD523

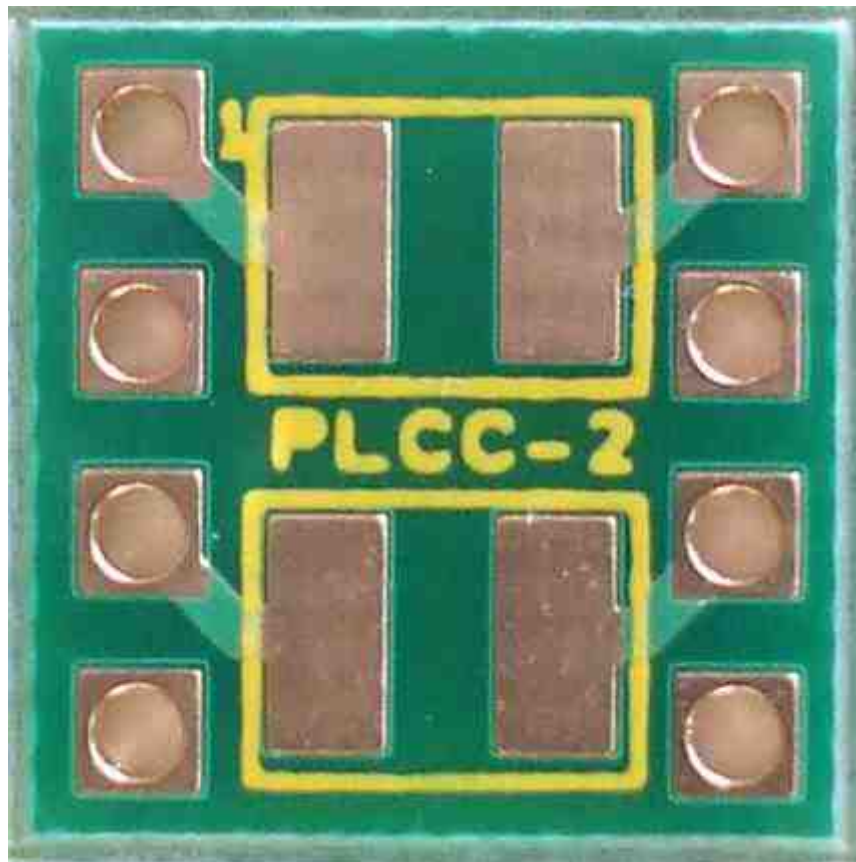
http://www.fairchildsemi.com/products/discrete/pdf/sod323_dim.pdf
<http://www.diodes.com/products/packages/index.php?cp:e=5&cp:id=95>
http://www.nxp.com/documents/outline_drawing/sod323_po.pdf
http://www.nxp.com/documents/outline_drawing/sod523_po.pdf

ADAPTER for PLCC-2 devices

Dimensions of our adapter: 10.7 x 10.7 x 1,5 mm

Our reference: 02305A

Application: Is possible to connect until 2 independent PLCC-2 devices.
Example: test of PLCC-2 led circuits in a breadboard.



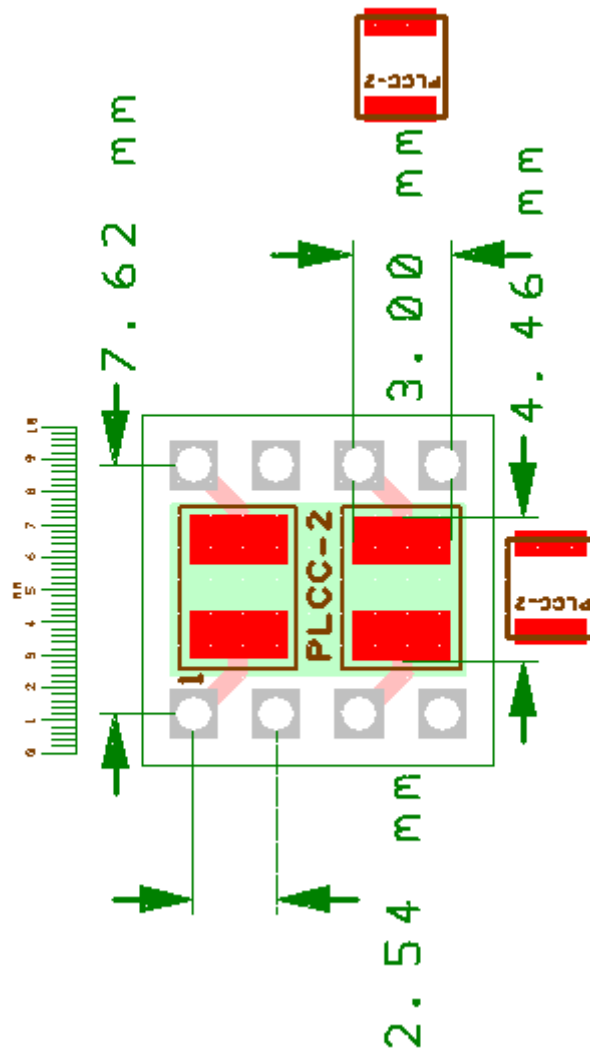
In the photo is possible to see the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Product description: Breadboard adapter for 2 units of PLCC-2 devices mainly as leds. This adapter accepts row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Dimensions:



Heatsink: bottom layer works as a small heatsink.

Application: is possible to connect until 2 independent devices.

PCB contour is scored: if several units are supplied, is easy to break the block in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering to avoid fingerprints over the gold plated surface of the pads.

Links about PLCC-2:

<http://www.vishay.com/docs/81621/vlmb31.pdf>

http://www.toshiba-components.com/LEDS/led_smd_plcc.html

http://www.avagotech.com/pages/en/leds/surface_mount_plcc_leds/plcc-2_leds/

<http://www.oznium.com/plcc-2>

http://www.cree.com/products/ledlamps_plcc.asp

http://www.unique-leds.com/index.php?target=categories&category_id=186

<http://www.optekinc.com/viewparts.aspx?categoryID=52>

<http://www.phenoptix.com/index.php/surface-mount-smd/plcc2-3528.html>

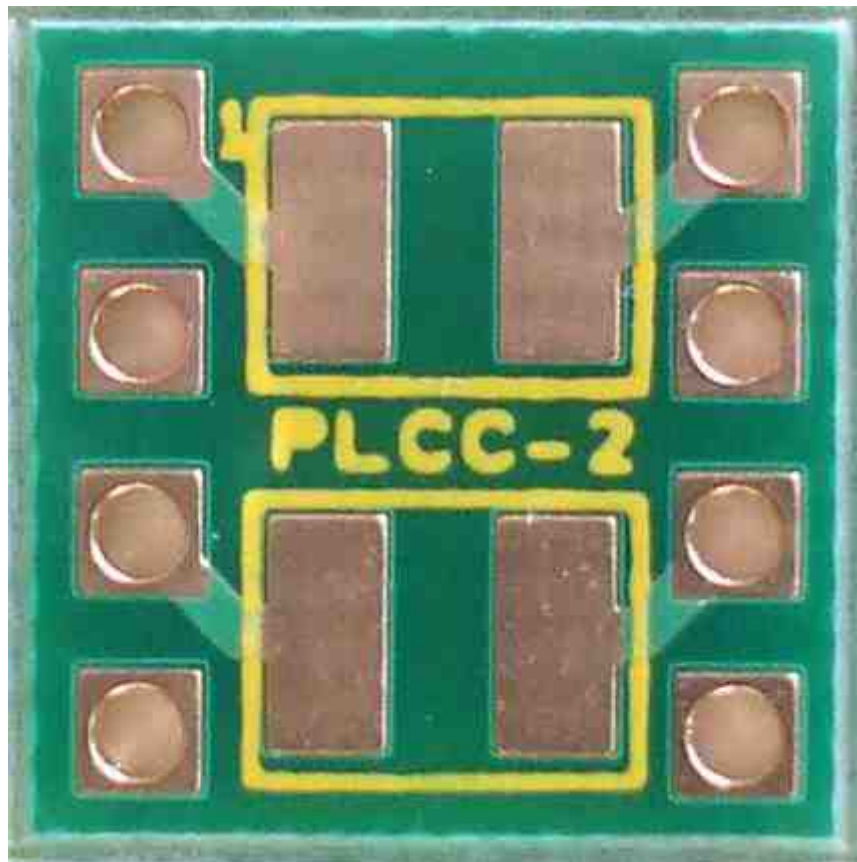
http://www.niktronixonline.com/category_s/91.htm

ADAPTER for PLCC-2 devices

Dimensions of our adapter: 10.7 x 10.7 x 1,5 mm

Our reference: 02305A

Application: Is possible to connect until 2 independent PLCC-2 devices.
Example: test of PLCC-2 led circuits in a breadboard.



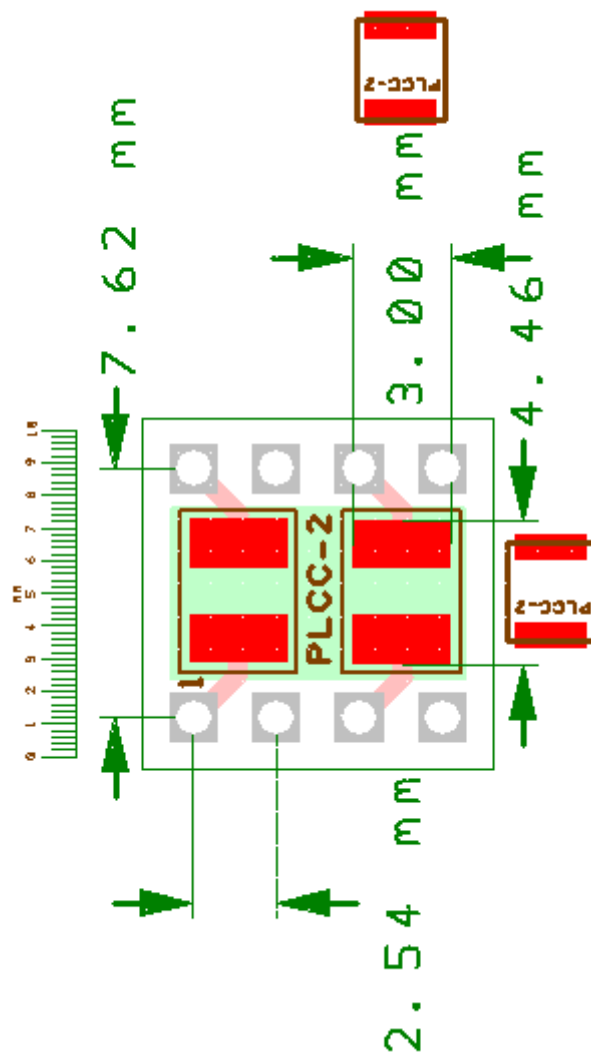
In the photo is possible to see the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Product description: Breadboard adapter for 2 units of PLCC-2 devices mainly as leds. This adapter accepts row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Dimensions:



Heatsink: bottom layer works as a small heatsink.

Application: is possible to connect until 2 independent devices.

PCB contour is scored: if several units are supplied, is easy to break the block in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering to avoid fingerprints over the gold plated surface of the pads.

Links about PLCC-2:

<http://www.vishay.com/docs/81621/vlmb31.pdf>

http://www.toshiba-components.com/LEDS/led_smd_plcc.html

http://www.avagotech.com/pages/en/leds/surface_mount_plcc_leds/plcc-2_leds/

<http://www.oznium.com/plcc-2>

http://www.cree.com/products/ledlamps_plcc.asp

http://www.unique-leds.com/index.php?target=categories&category_id=186

<http://www.optekinc.com/viewparts.aspx?categoryID=52>

<http://www.phenoptix.com/index.php/surface-mount-smd/plcc2-3528.html>

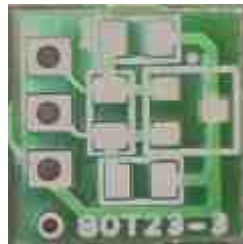
http://www.niktronixonline.com/category_s/91.htm

SOT23-3 ADAPTER

Breadboard adapter for SOT23-3 3pin devices:

Our reference: 03581A

PCB dimensions: 11,8 x 11,1 x 1,5 mm



Connectors: accept row 3 pin connectors with 2,54 mm pitch, breadboard compatible.

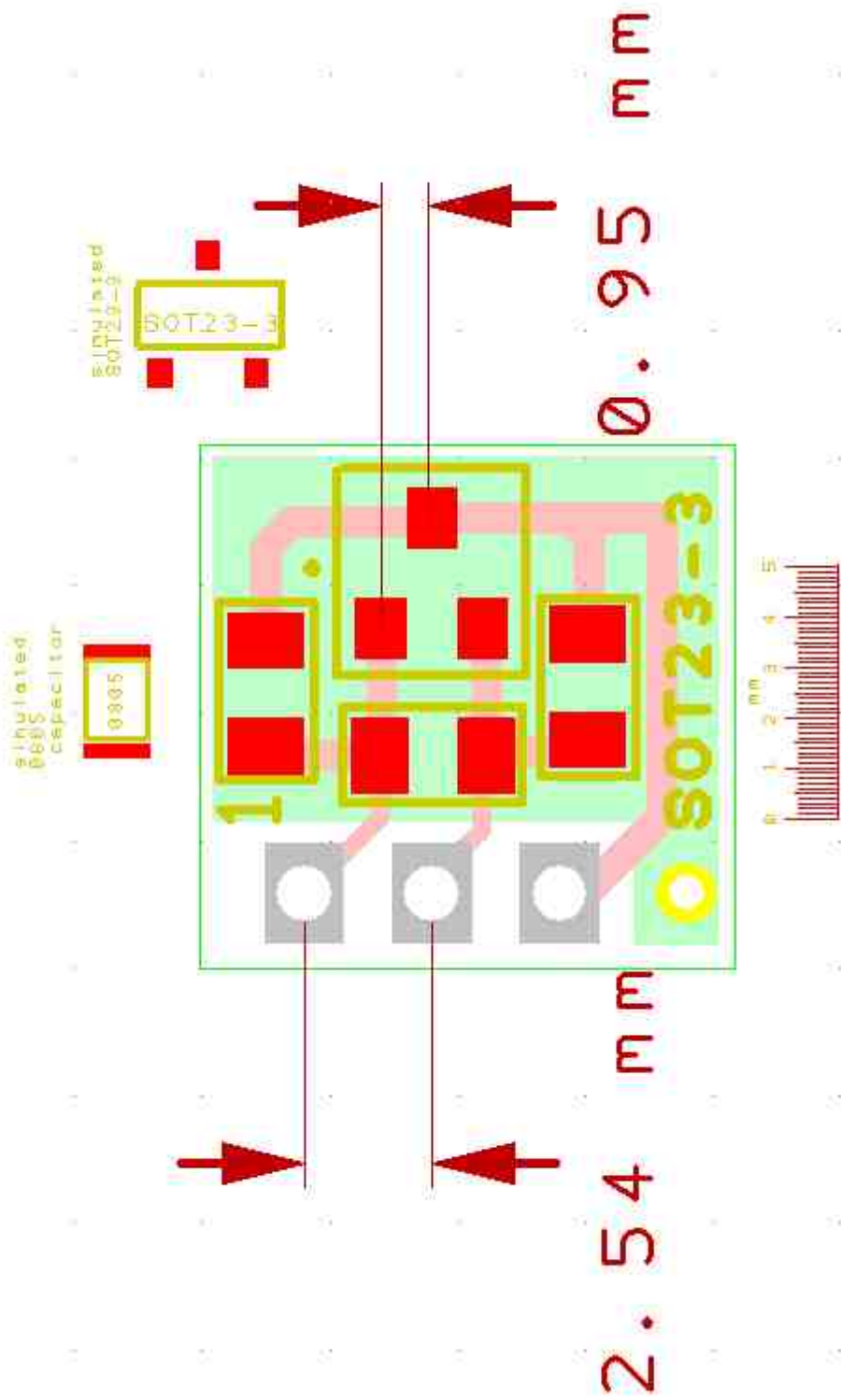
Decoupling: This adapter is foreseen for up to 3 decoupling capacitors of 0805 type between any legs.

Ground connection: Available a ground connection. Ground plane works as an heatsink.

Finishing The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

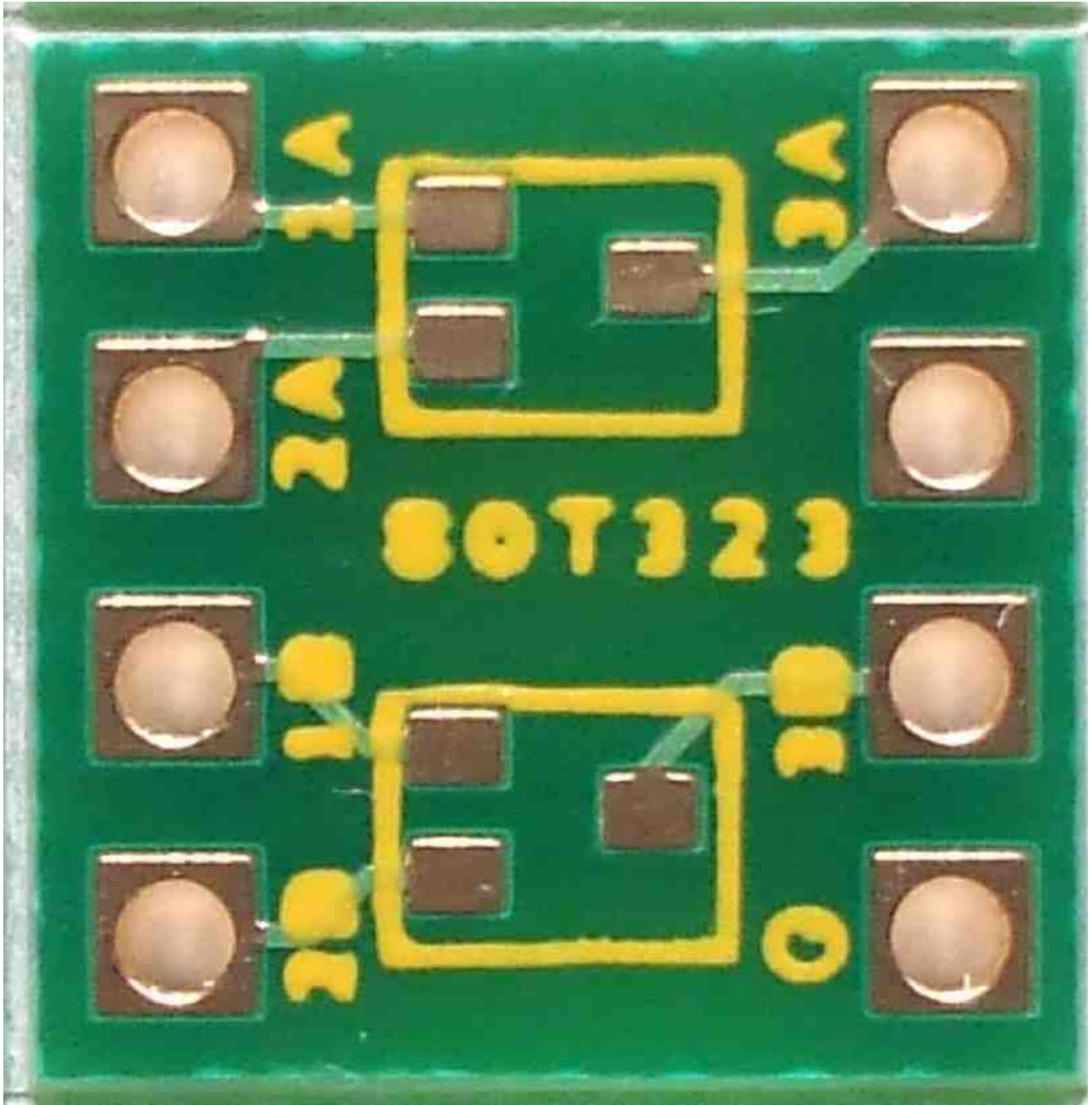
This adapter uses a quality FR4 pcb, with solder mask, to avoid shorts when hand soldered. All holes are plated through.

The PCB contour is milled with small bridges.



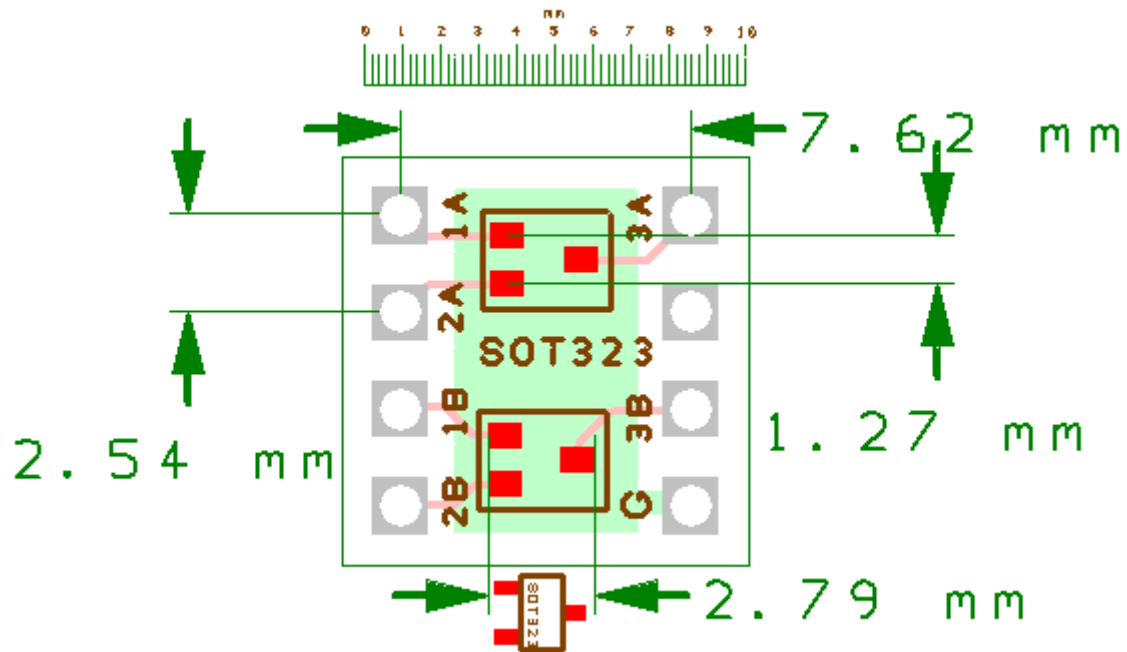
ADAPTER for SOT323 / SC70 devices

PCB dimensions: 10.7 x 10.7 x 1,5 mm



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.



Our reference: 03045A

Product description: Breadboard adapter for 2 units of SOT323 / SC70 devices
Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOT323

- http://www.nxp.com/documents/outline_drawing/sot323_po.pdf
- <http://www.syncpower.com/datasheet/SOT-323.pdf>
- http://www.fairchildsemi.com/products/discrete/pdf/sot323_dim.pdf
- http://www.diodes.com/zetex/_pdfs/3.0/pack/SOT323.pdf
- <http://www.diotec.com/produkte/selektionguide/transistors+smallsignal.pdf>
- <http://www.southseasemi.com/ds/outline/Package%20SOT-323%20%28Rev%202.0%29.pdf>
- http://www.hoperf.com/rf_components/transistor/sot323.htm
- <http://www.centrasemi.com/PDFs/case/SOT-323PD.pdf>

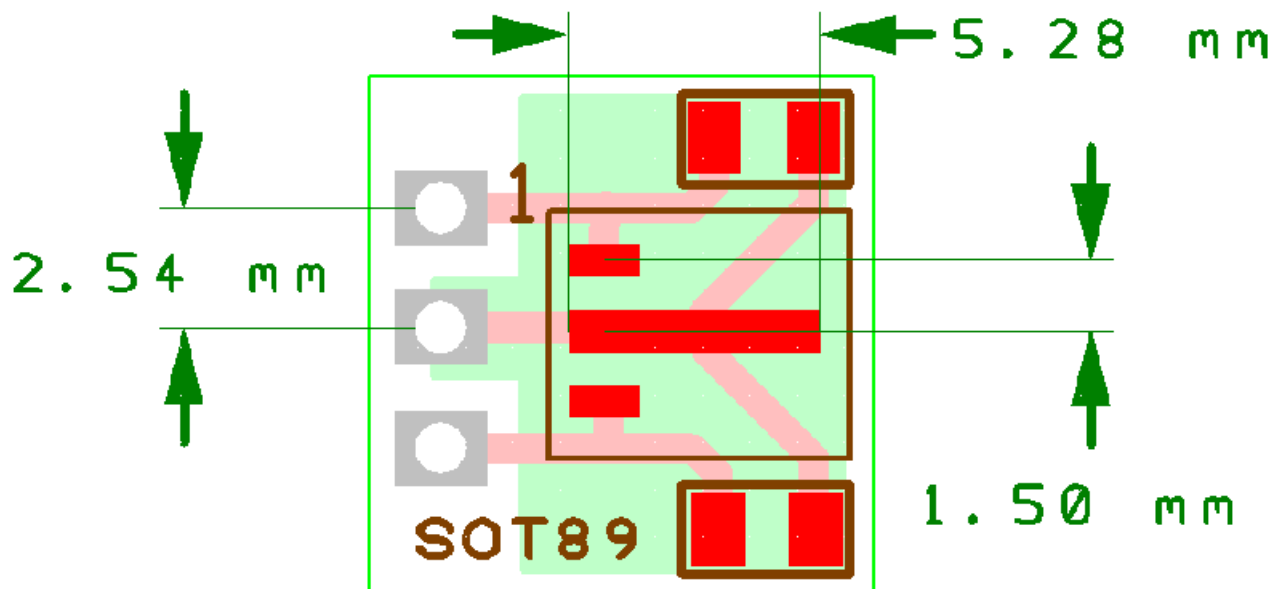
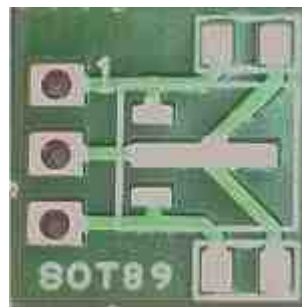
Links for SC70 package:

- [http://www.analog.com/static/imported-files/packages/PKG_PDF/SC70\(KS\)/KS_3.pdf](http://www.analog.com/static/imported-files/packages/PKG_PDF/SC70(KS)/KS_3.pdf)
- <http://www.fairchildsemi.com/dwg/MA/MAA06A.pdf>
- <http://www.vishay.com/mosfets/sc-70-package/>
- <http://www.national.com/packaging/mkt/maa05a.pdf>
- http://www.onsemi.com/pub_link/Collateral/419-04.PDF

SOT89 ADAPTER

Breadboard adapter for SOT89 devices:

PCB dimensions: 12 x 11.3 x 1,5 mm



Our reference: 03172A

Product description: Breadboard adapter for SOT89 devices.
Accept a single row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

Ground connection: connected to bottom layer.

Decoupling capacitors: can use two 0805 decoupling capacitors.

PCB contour: pcb contour is scored; is easy to break easily a block of several adapters in individual pieces.

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links:

http://www.diodes.com/zetex/_pdfs/3.0/pack/SOT89.pdf

<http://www.fairchildsemi.com/dwg/MA/MA03C.pdf>

http://www.nxp.com/documents/outline_drawing/sot089_po.pdf

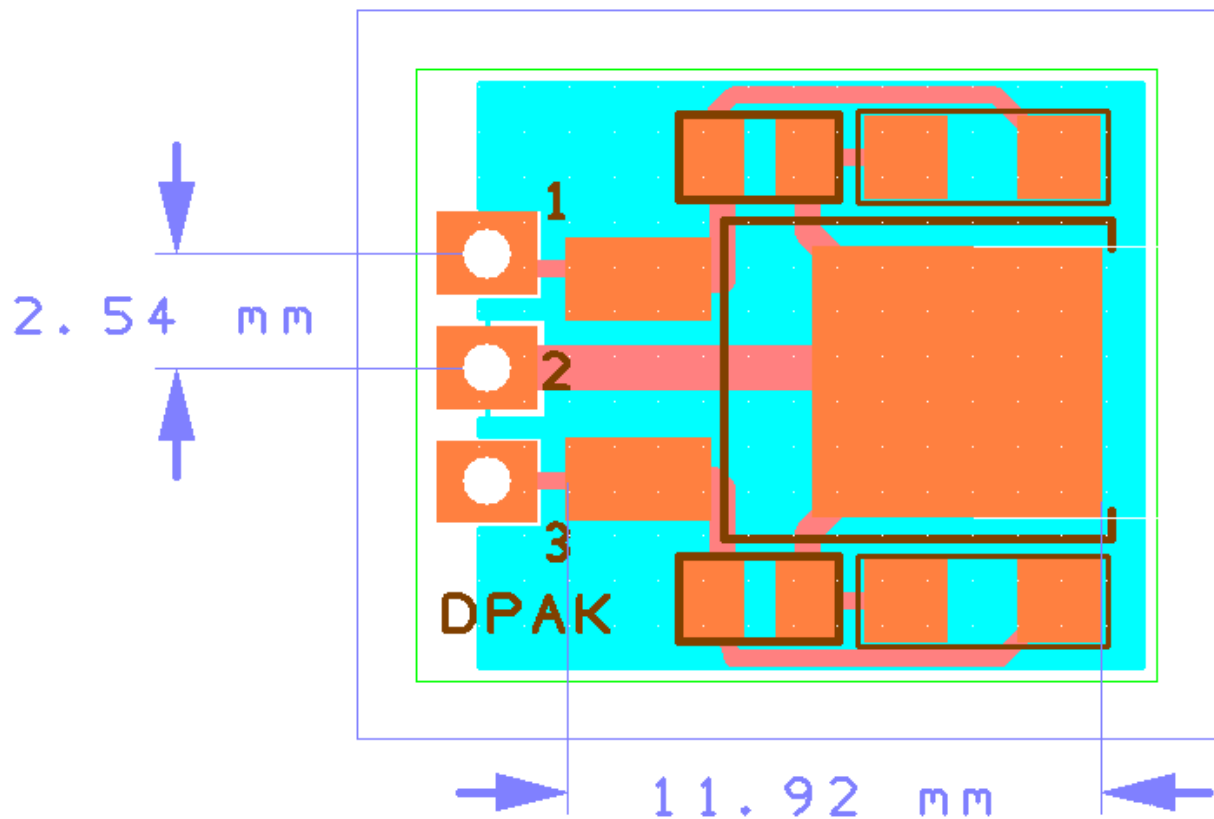
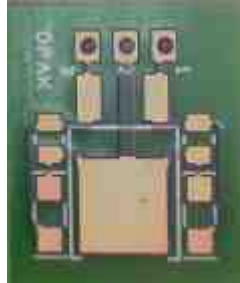
[http://www.analog.com/static/imported-files/packages/PKG_PDF/SOT-89\(RK\)/RK_3.pdf](http://www.analog.com/static/imported-files/packages/PKG_PDF/SOT-89(RK)/RK_3.pdf)

http://www.supertex.com/pdf/package/N8_03_TO243AAx.pdf

<http://diodes.com/datasheets/ap02001.pdf>

ADAPTER for DPAK devices

PCB dimensions: 17 x 19.6 x 1,5 mm



Our reference: 03973A

Product description: Breadboard adapter for DPAK, TO252 devices
Accept one 3 pin row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for DPAK package:

<http://www.irf.com/package/igbt/dpakfootprint.pdf>

http://www.diodes.com/zetex/_pdfs/3.0/pack/DPAK.pdf

<http://www.microsemi.com/en/products/package/dt-3pin-d-pak>

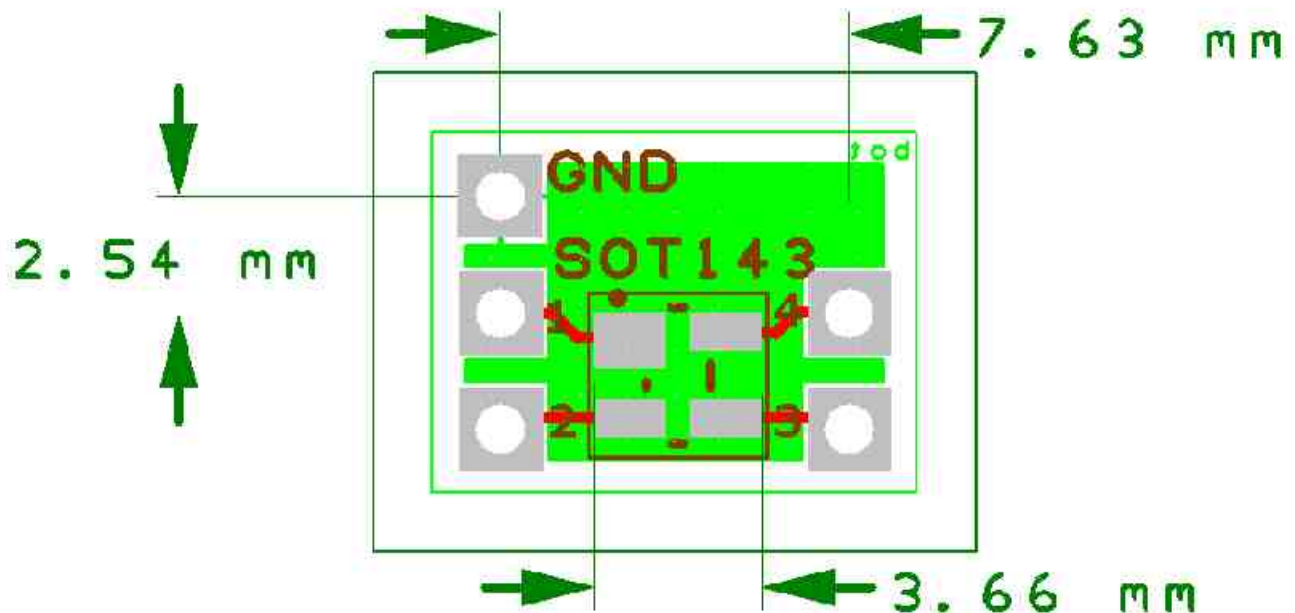
<http://www.fairchildsemi.com/dwg/TO/TO252A03.pdf>

<http://www.vishay.com/docs/91344/to252.pdf>

<http://www.national.com/packaging/mkt/td03b.pdf>

ADAPTER for SOT143 packages

PCB dimensions: 9.2 X 11.6 X 1,5 mm



Our reference: 04731A

Product description: Breadboard adapter for SOT143 packages
Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

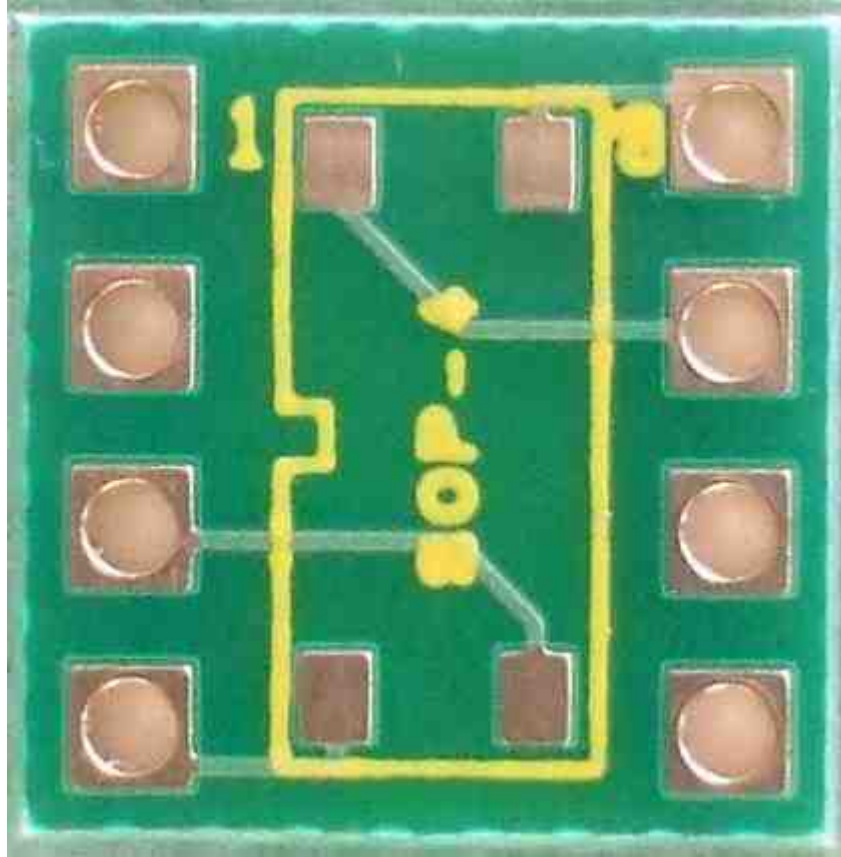
Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOT143 package:

<http://www.welwyn-tt.com/pdf/datasheet/SOT143.pdf>
http://www.maxim-ic.com/package_drawings/21-0052E.pdf
<http://www.micrel.com/PDF/other/unofficial-pcb-footprints/SOT-143%20Footprint.pdf>
http://www.irctt.com/file.aspx?product_id=218&file_type=datasheet
http://www.analog.com/static/imported-files/packages/61771145552601RA_4.pdf
<http://www.centrasemi.com/PDFs/case/SOT-143PD.pdf>
http://www.nxp.com/documents/outline_drawing/sot143b_po.pdf
http://www.protekdevices.com/Assets/Documents/Package_Outlines/sot143_pack.pdf
http://www.hoperf.com/rf_components/transistor/sot143.htm

ADAPTER for SOP-4 devices

PCB dimensions: 10.7 x 10.7 x 1,5 mm



Product description: Breadboard adapter for SOP-4 devices
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

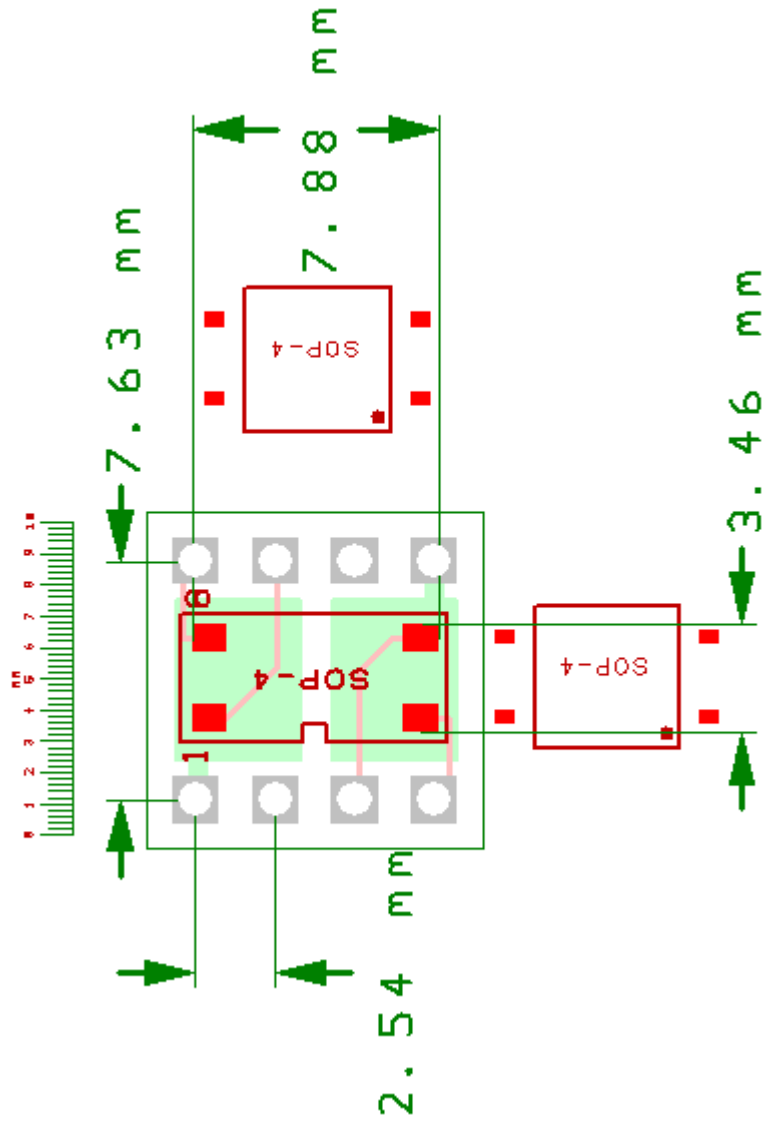
Ground plane: one ground plane connection is available. The ground plane is also useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for best soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Dimensions of our adapter :



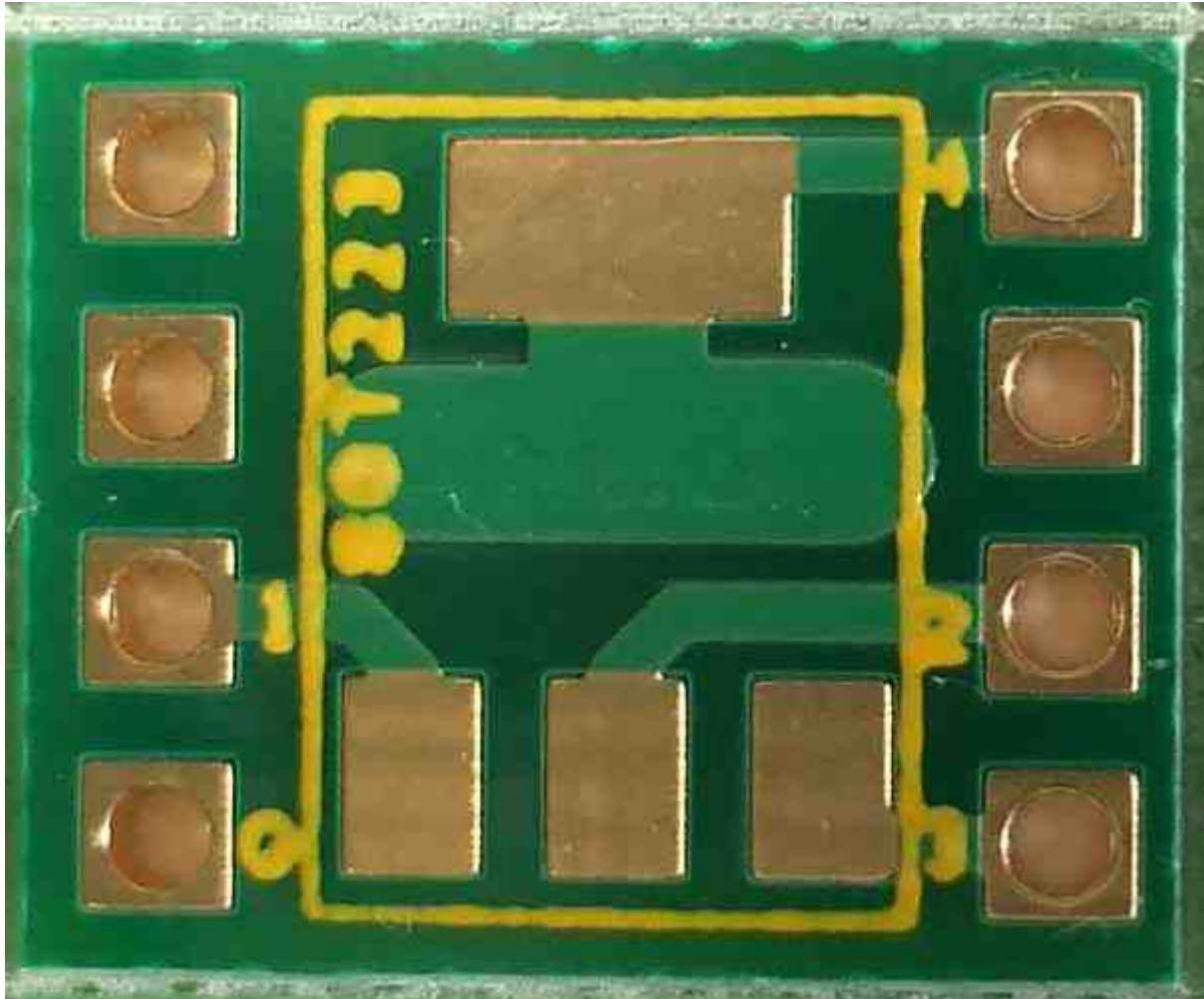
Links for SOP-4 package

- <http://www.semicon.toshiba.co.jp/eng/product/package/coupler/sop4.html>
- <http://www.vishay.com/docs/83686/sfh690ab.pdf>

SOT223-3 ADAPTER

Breadboard adapter for SOT223-3 devices:

PCB dimensions: 11,0 x 13,5 x 1,5 mm



Our reference: 04633A

Product description: Breadboard adapter for SOT223-3 devices.
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

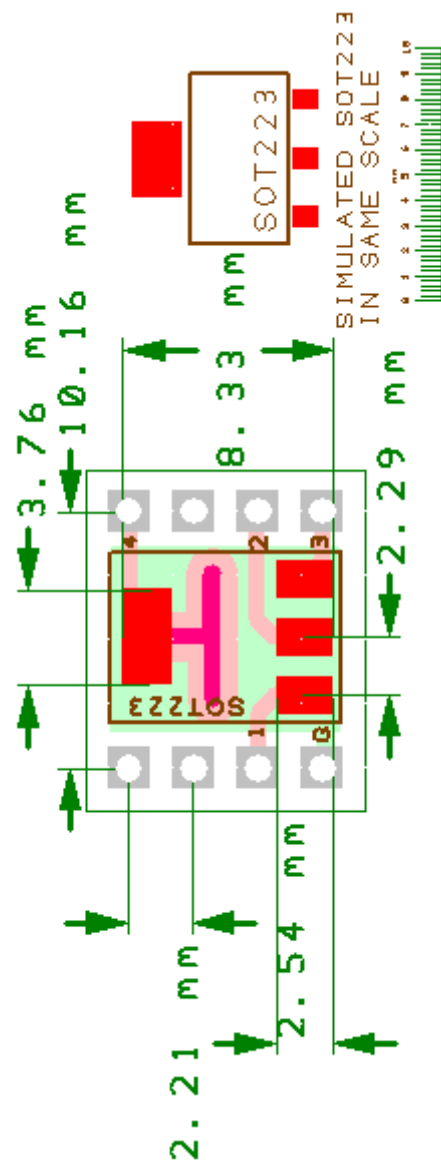
Ground connection: connected to bottom layer. Bottom layer is usefull as heatsink.

PCB contour: pcb contour is scored; is easy to break easily a block of several adapters in individual pieces.

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of

the pads.



Links:

http://www.fairchildsemi.com/products/discrete/pdf/sot223_dim.pdf

<http://www.holtek.com/pdf/package/sot223-3.pdf>

<http://www.national.com/packaging/mkt/mp04a.pdf>

http://www.diodes.com/zetex/_pdfs/3.0/pack/SOT223.pdf

<http://www.vishay.com/docs/91363/sot223.pdf>

http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf

SOT23-6 ADAPTER

Breadboard adapter for SOT23-6 6pin / SOT23-5 5 pin devices:

Our reference: 06271A

PCB dimensions: 11 x 14 x 1,5 mm

Product: Adapter for SOT23-6 devices , for example for amplifiers, data conversion, power management, digital pots, transistors and others.

Description: Breadboard adapter for SOT23-6 devices.

Decoupling is available: Accept one local 0805 decoupling capacitor, if necessary connected with 2 small wires.

Ground plane: a ground connection is available for testing.

Heat sink: the ground plane acts also as a small heat sink, usefull in situations of high power dissipation.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

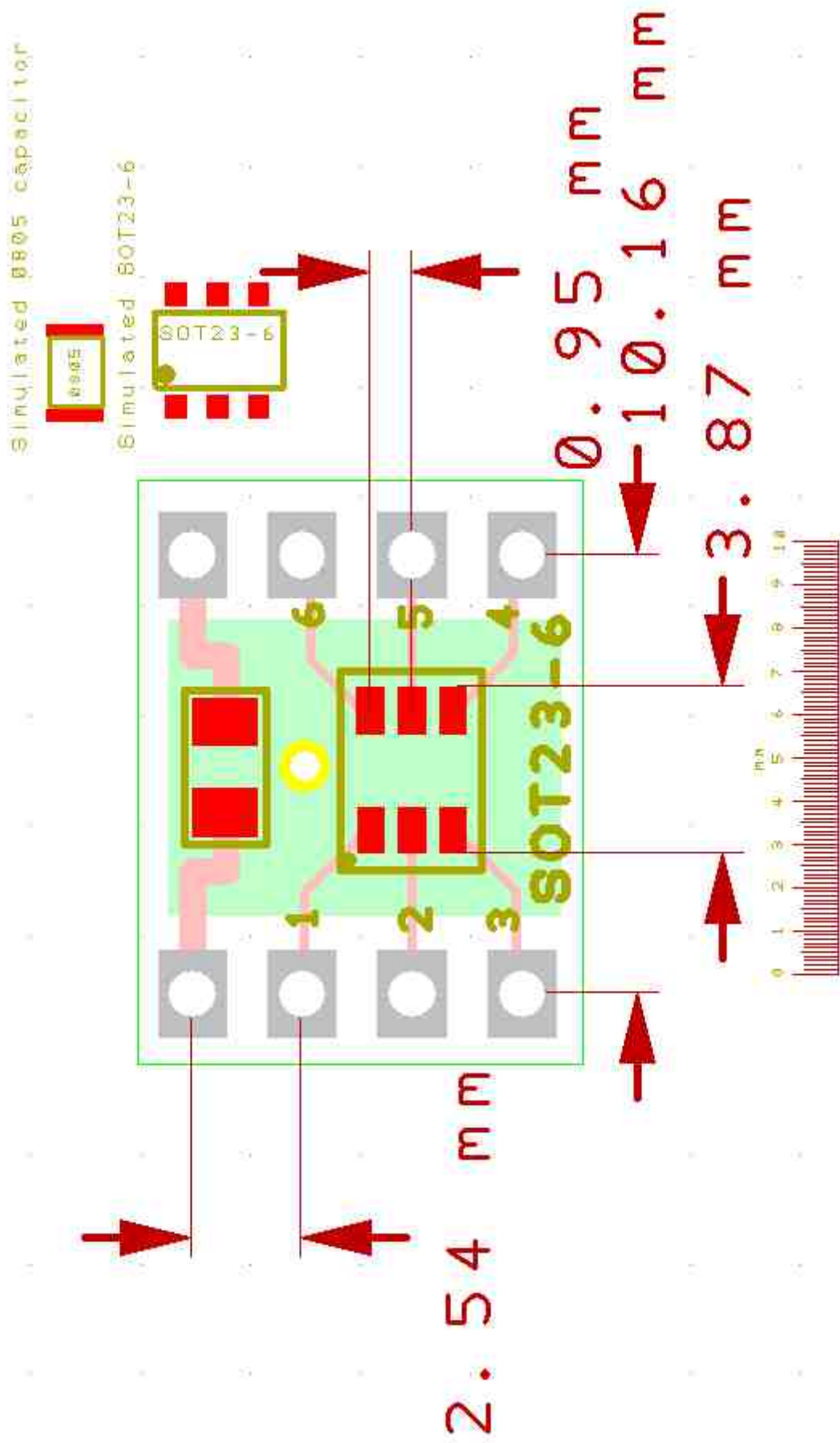
PCB contour: The pcb contour is milled with small bridges.

Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.

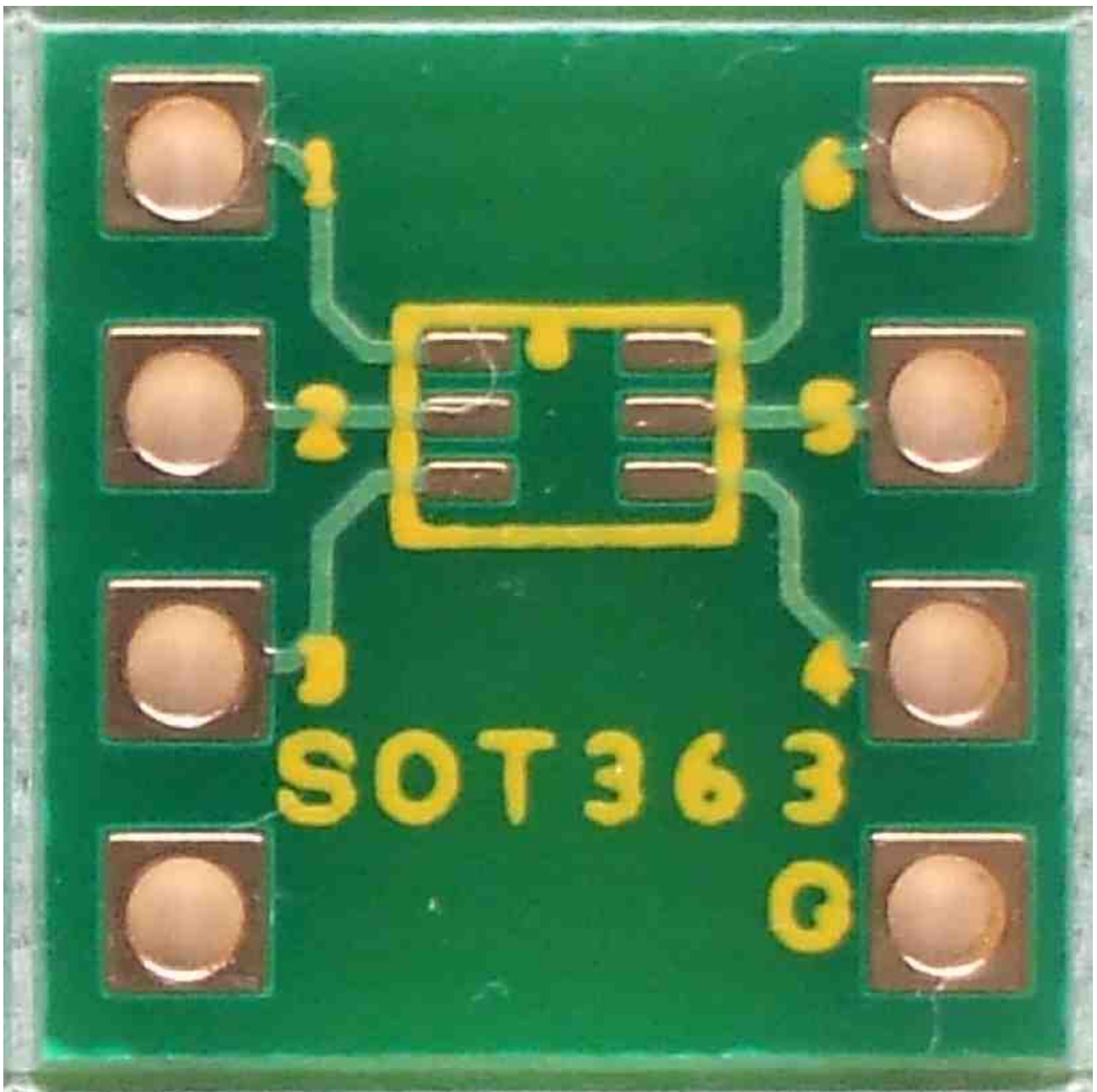
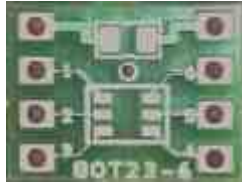


Closeup of pads to show the solder mask



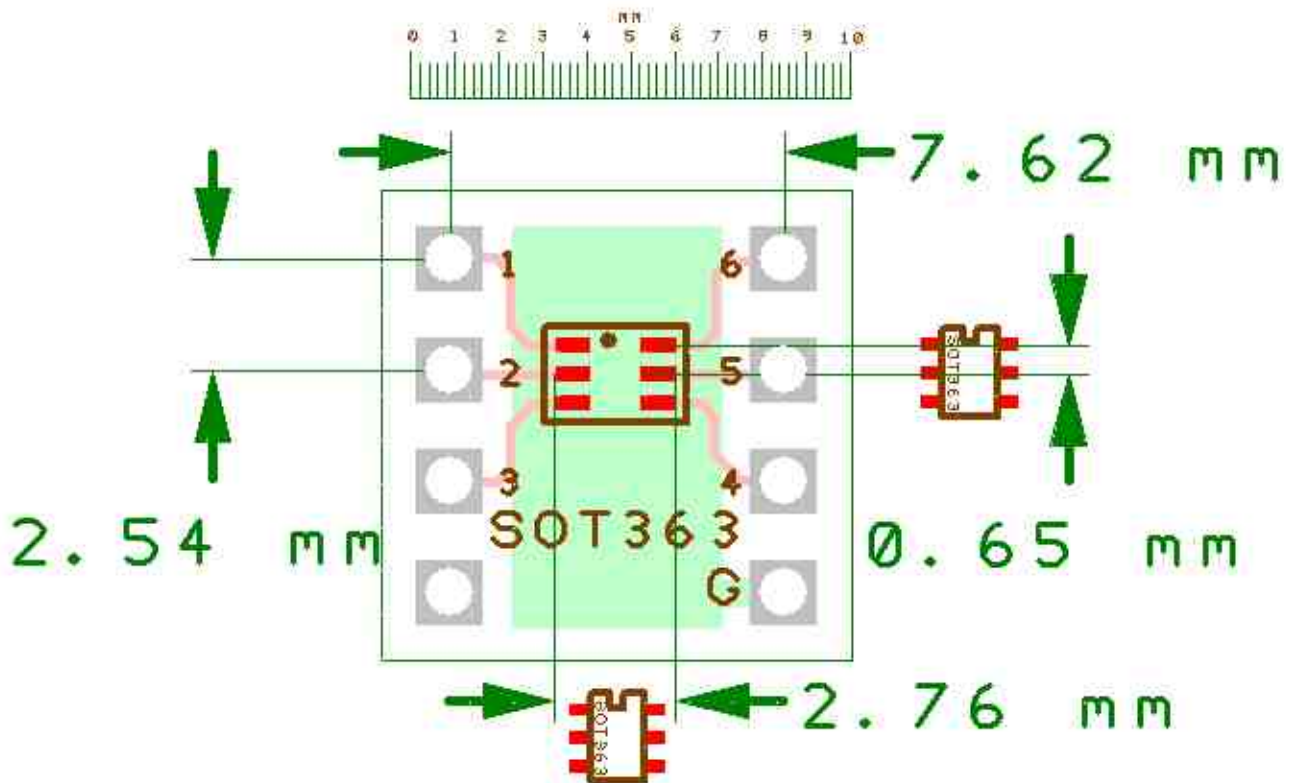
ADAPTER for SOT363 / SC88 devices

PCB dimensions: 10.7 x 10.7 x 1,5 mm



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.



Our reference: 06255A

Product description: Breadboard adapter for SOT363 / SC88 / TSSOP6 / SC70-6 devices
Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOT363 SC88 package:

http://www.nxp.com/documents/outline_drawing/sot363_po.pdf

<http://www.syncpower.com/datasheet/SOT-363.pdf>

<http://www.vishay.com/docs/84015/sot363.pdf>

<http://www.southseasemi.com/ds/outline/Package%20SOT-363%20%28Rev%202.0%29.pdf>

http://www.rfmd.com/CS/Documents/SGC-4363%28Z%29_SOT363SPACEOutlineSPACEDrawing.pdf

<http://diodes.com/datasheets/ap02001.pdf>

<http://www.avagotech.com/>

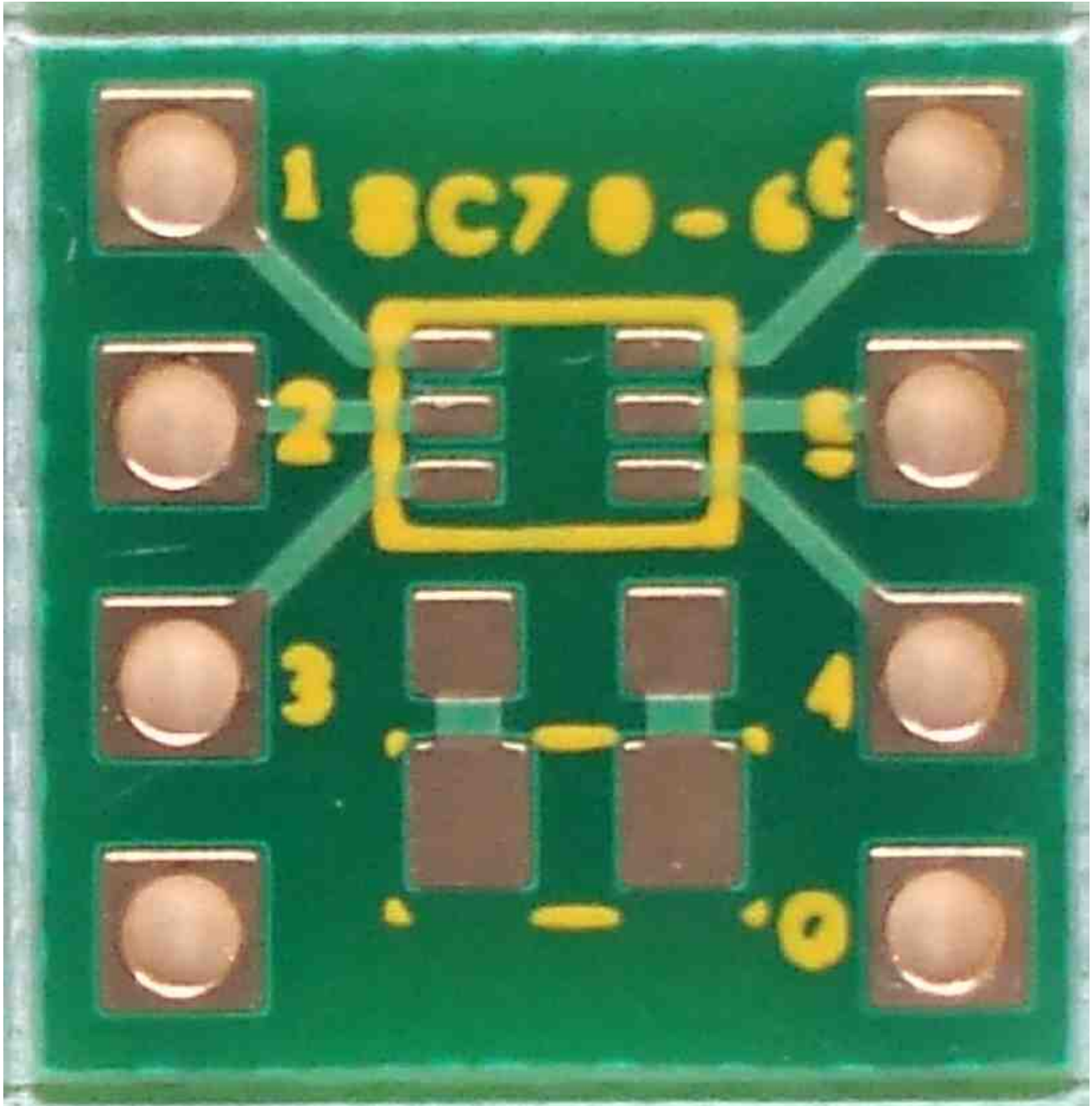
<http://www2.renesas.com/discrete/en/package/pd/sc88.html>

<http://www.fairchildsemi.com/dwg/MA/MAA06A.pdf>

http://www.infineon.com/cms/packages/SMD_-_Surface_Mounted_Devices/SOT/SOT363_xSC88x.html?__locale=en

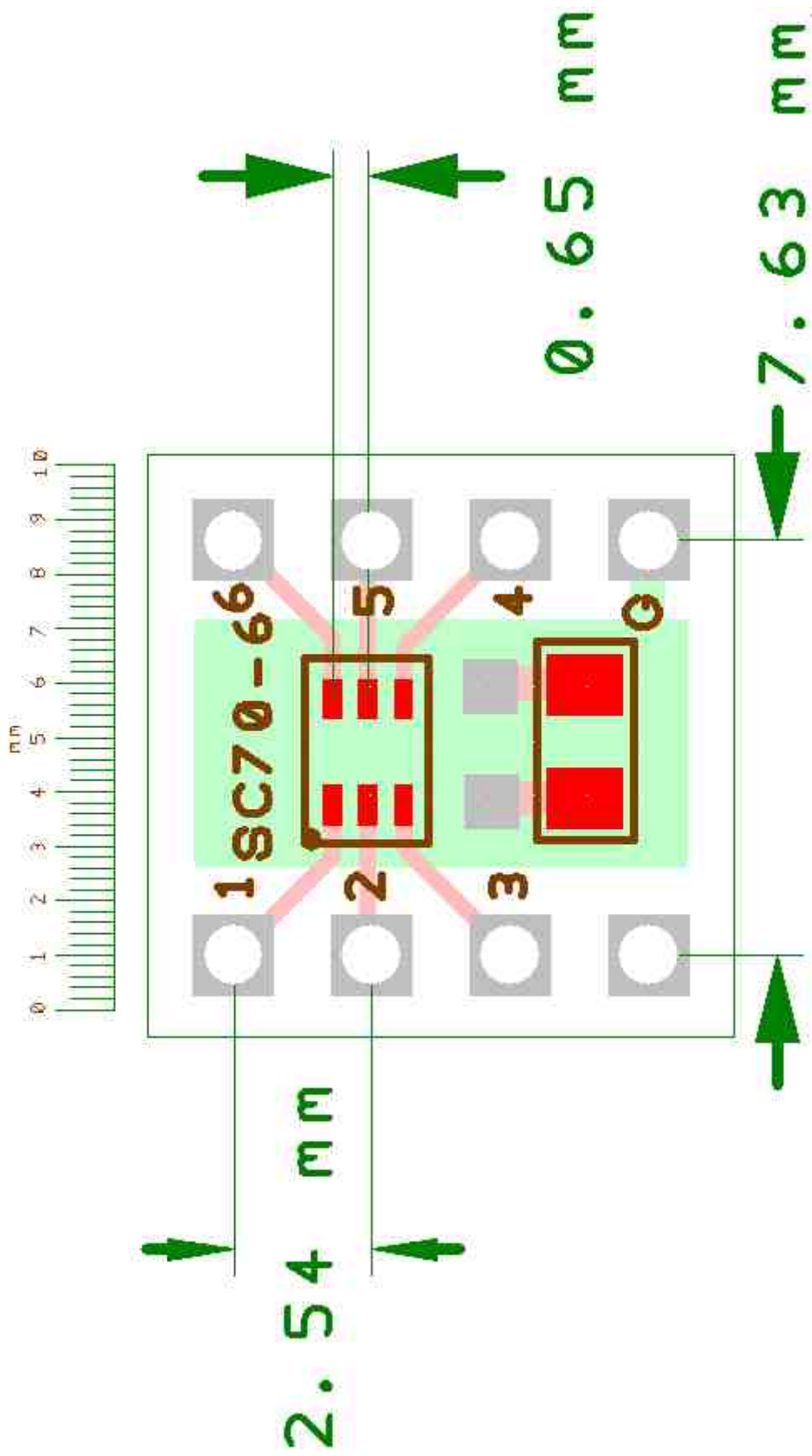
ADAPTER for SC70 devices

PCB dimensions: 10.7 x 10.7 x 1,5 mm



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.



Our reference: 06646A

Product description: Breadboard adapter for SC70-6, SC70-5 and SC70-3 devices
Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SC70-6 package:

http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf

<http://www.maxim-ic.com/design/packaging/index.mvp?a=1>

<http://www.fairchildsemi.com/dwg/MA/MAA06A.pdf>

<http://www.ti.com/lit/ml/mpds114c/mpds114c.pdf>

http://www.micrel.com/_PDF/other/unofficial-pcb-footprints/SC70-6%20Footprint.pdf

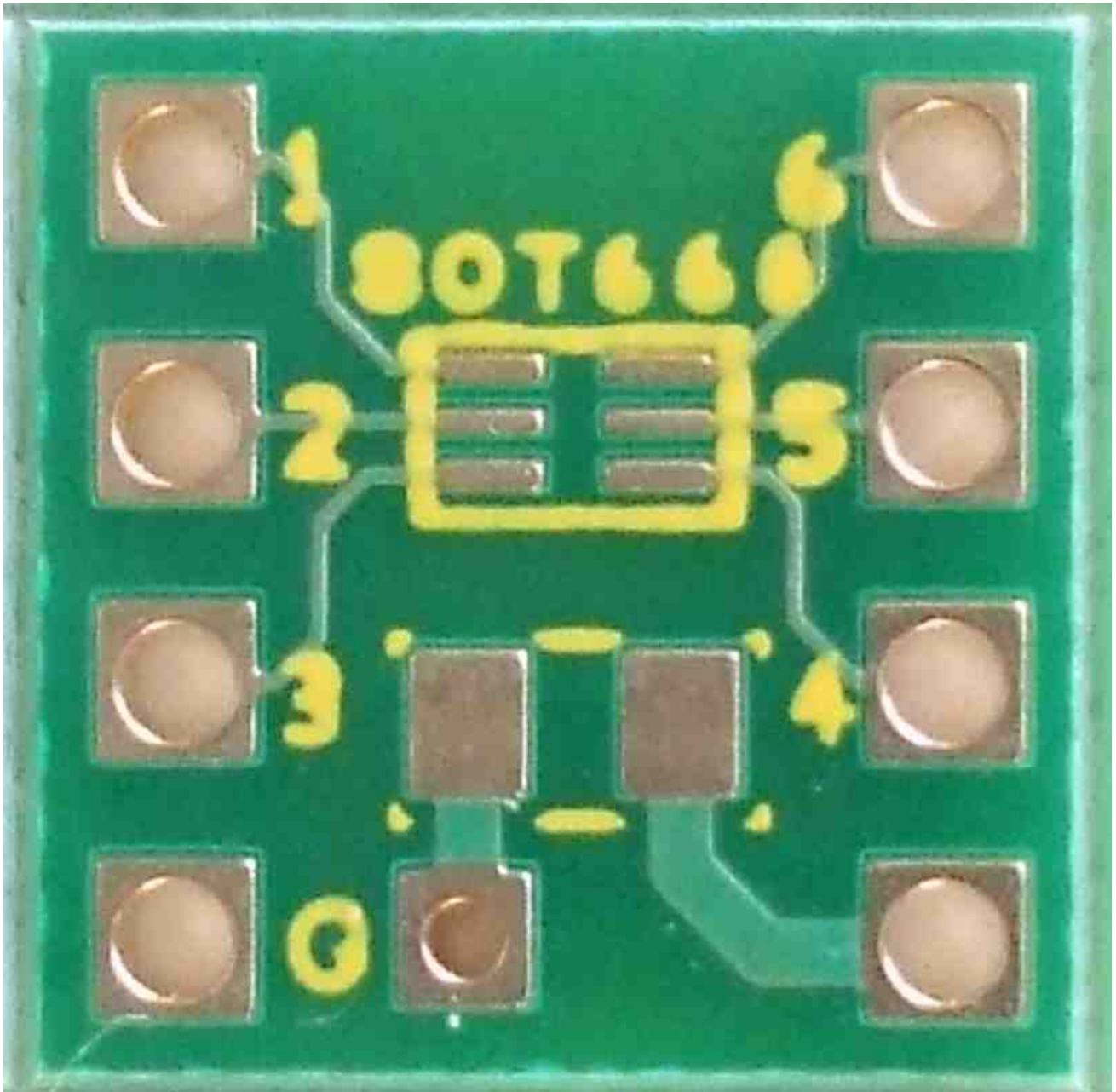
<http://www.vishay.com/docs/71154/71154.pdf>

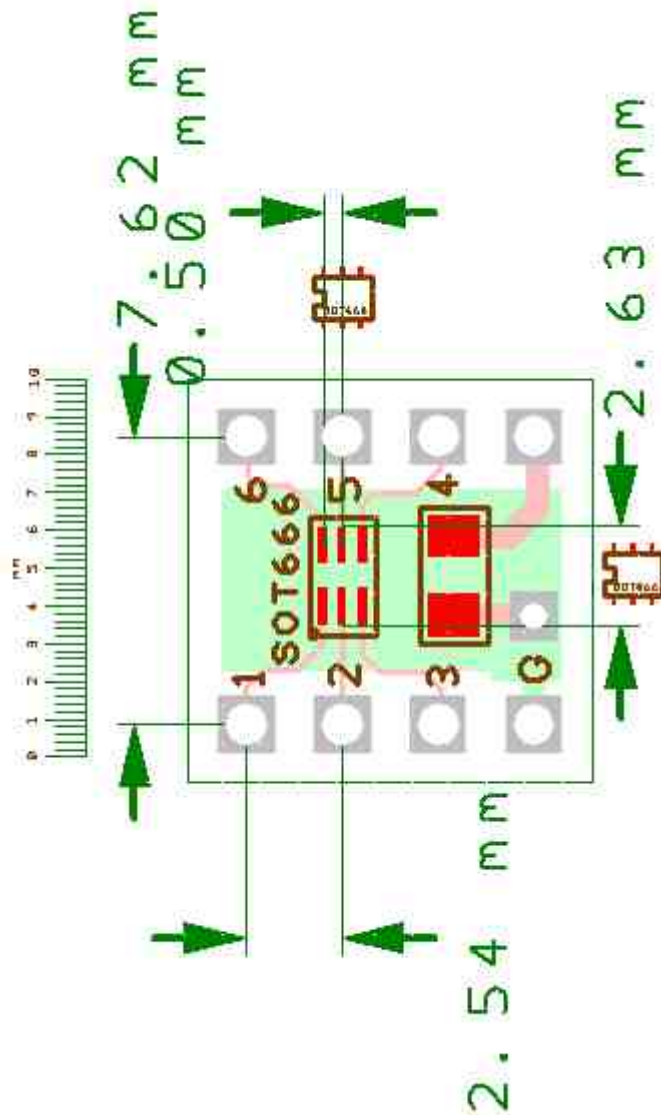
<http://diodes.com/datasheets/ap02001.pdf>

SOT666 ADAPTER

Breadboard adapter for SOT666 devices:

PCB dimensions: 10,7 x 10,7 x 1,5 mm





Our reference: 06428A

Product description: Breadboard adapter for SOT666 devices.
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

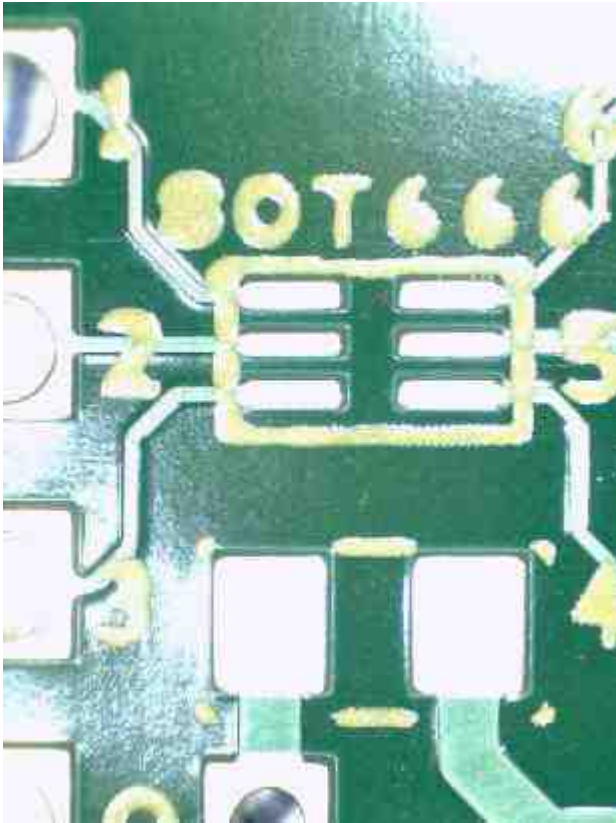
Ground connection: connected to bottom layer.

Decoupling capacitor: 0805 easy to mount on the pcb with 2 small wires.

PCB contour: pcb contour is scored; is easy to break easily a block of several adapters in individual pieces.

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.



This close up show the solder mask, with protecting windows around each pad.

Solder mask exist only around pads and vias and is used to minimize the risk of building solder bridges, between pads, when the SOT666 is hand soldered.

Links:

Vishay, Nxp, Union-ic, Pericom, Zetex, Skyworks and St use this package

<http://www.vishay.com/docs/72067/72067.pdf>

http://www.nxp.com/documents/outline_drawing/sot666_po.pdf

<http://www.union-ic.com/upload/12566120565519.pdf>

<http://www.pericom.com/pdf/packaging/TA6.pdf>

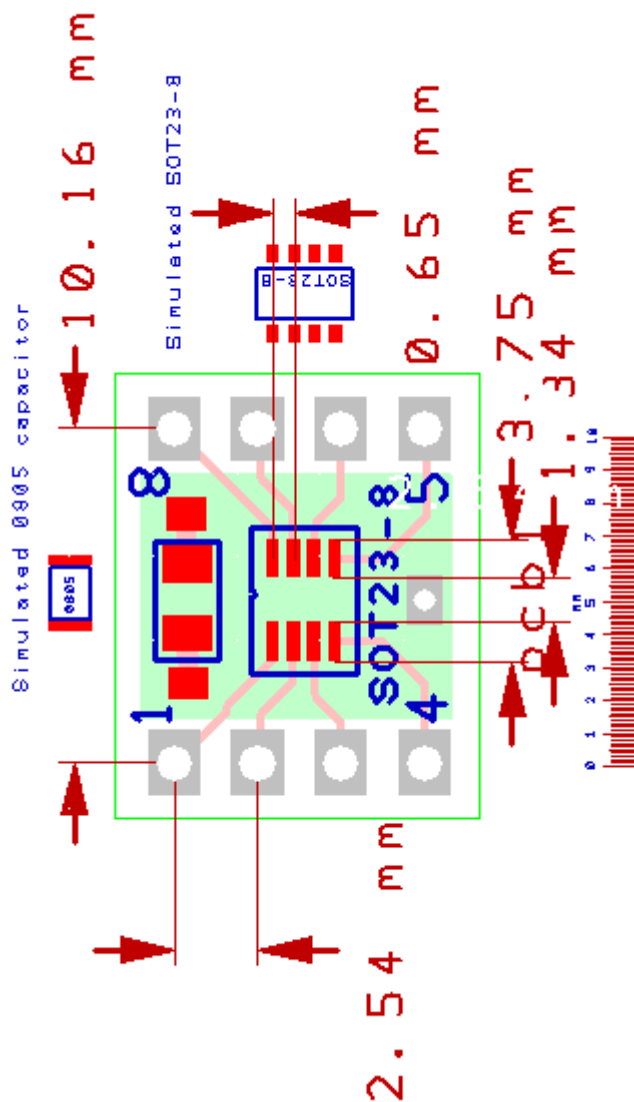
<http://diodes.com/datasheets/ap02001.pdf>

<http://www.skyworksinc.com/uploads/documents/200037H.pdf>

http://www.st.com/internet/com/TECHNICAL_RESOURCES/TECHNICAL_LITERATURE/DATA_SHEET/CD00065303.pdf

SOT23-8 ADAPTER

Breadboard adapter for SOT23-8 (8pin devices)



Our reference: 08171A

PCB dimensions: 12 x 14,7 x 1,5 mm

Product description: Breadboard adapter for SOT23-8 devices , for example for amplifiers, data conversion, power management, digital pots and others.

Decoupling is available: Accept one local 0805 decoupling capacitor, if necessary connected with 2 small wires.

Ground plane: a ground connection is available for testing.

Heat sink: the ground plane acts also as a small heat sink, usefull in situations of high power dissipation.

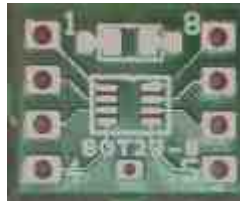
Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

PCB contour: The pcb contour is milled with small bridges.

Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.



Usefull links

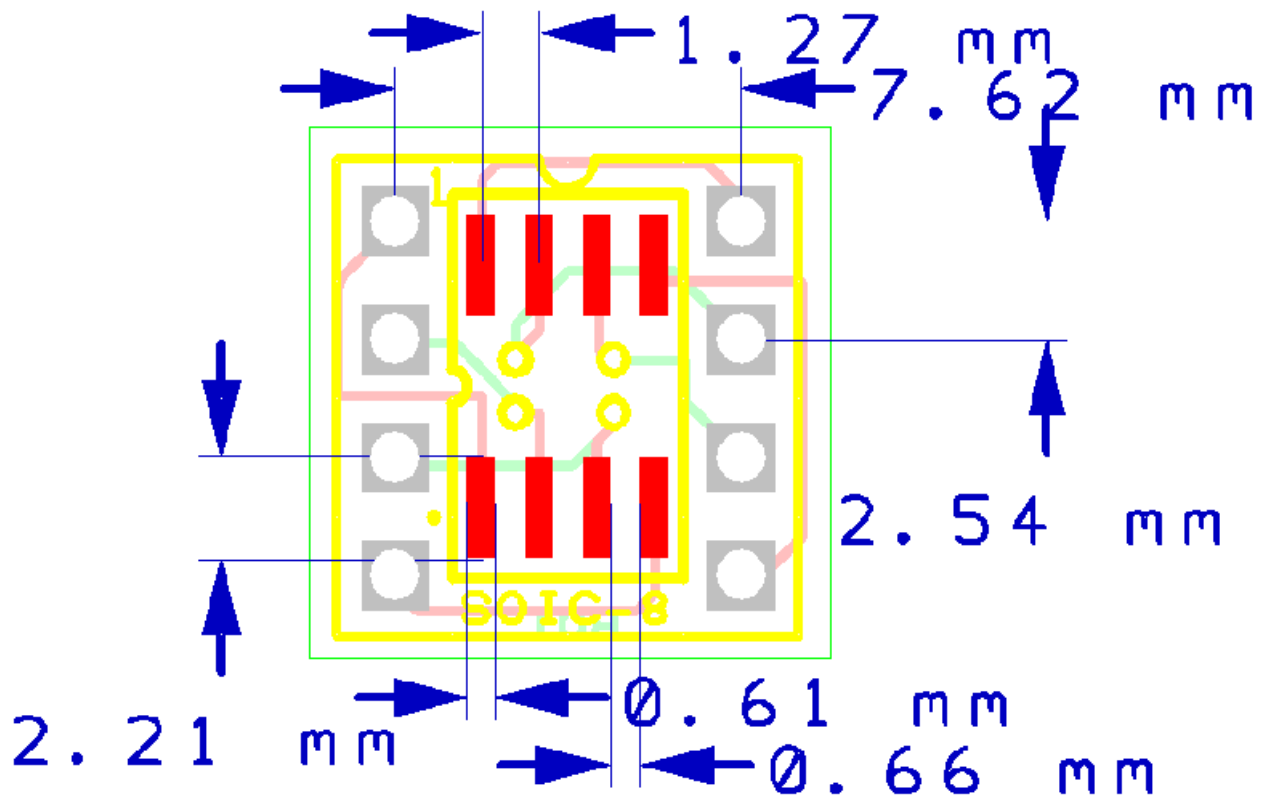
<http://focus.ti.com/lit/an/sbfa015a/sbfa015a.pdf>

http://pdfserv.maxim-ic.com/land_patterns/90-0176.PDF

SOIC8 MINI ADAPTER

Breadboard adapter for SOIC 8pin devices:

PCB dimensions: 14,6 x 14,9 x 1,5 mm



Our reference: 08753A

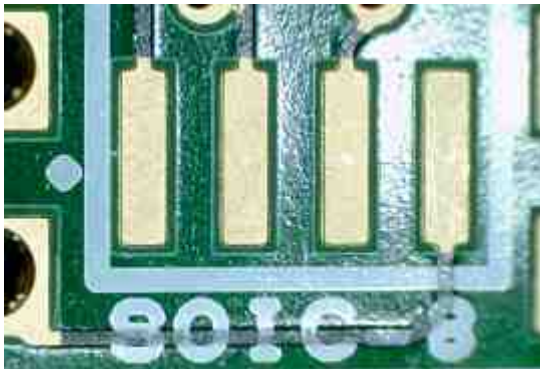
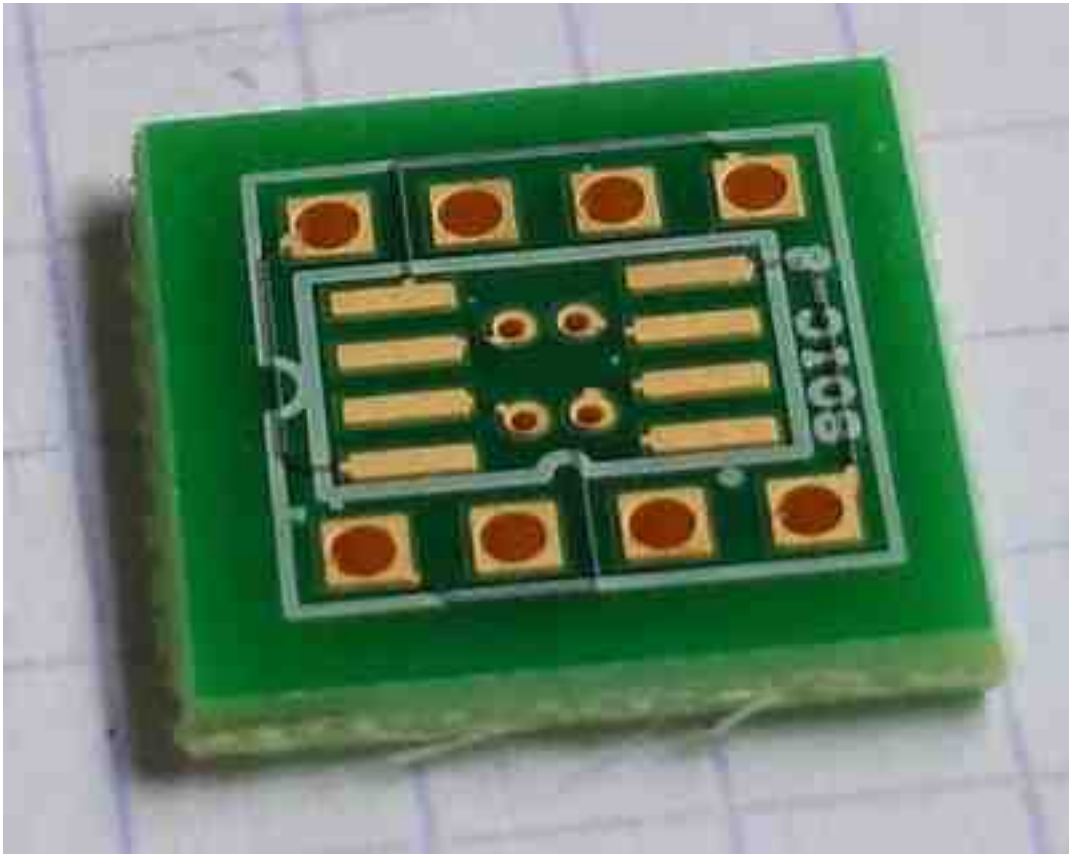
Product description: Breadboard adapter for SOIC8 devices , for example for operational amplifiers, data conversion, power management, digital pots and others.
Accept row connectors with 2,54 mm pitch, breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

PCB contour: The pcb contour is scored.

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.



Close up to show the solder mask with protecting windows around the pads, to minimize the risk of solder bridges, when the SOIC is hand soldered.

Links:

<http://www.fairchildsemi.com/dwg/M0/M08A.pdf>

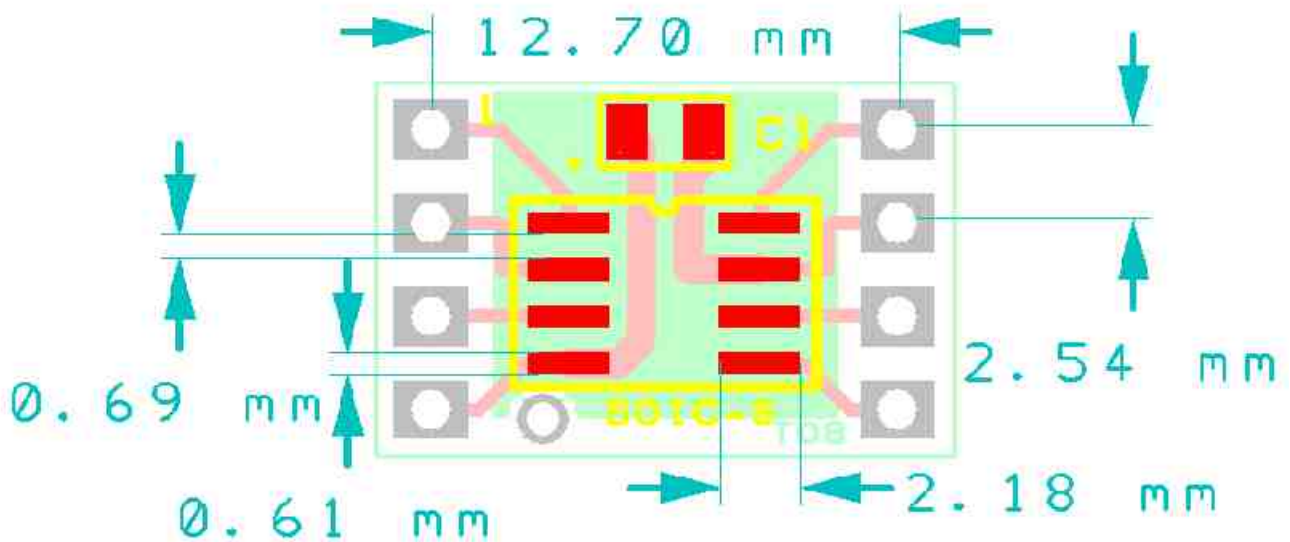
<http://www.intersil.com/data/pk/MDP0027.pdf>

http://www.freescale.com/files/analog/doc/app_note/AN2409.pdf

SOIC8 ADAPTER

Breadboard adapter for SOIC 8pin devices:

PCB dimensions: 14,3 x 19,7 x 1,5 mm



Accept row connectors with 2,54 mm pitch, breadboard compatible.

Accept a 0805 decoupling capacitor C1 (pin 4 and 7), useful for some popular chips;

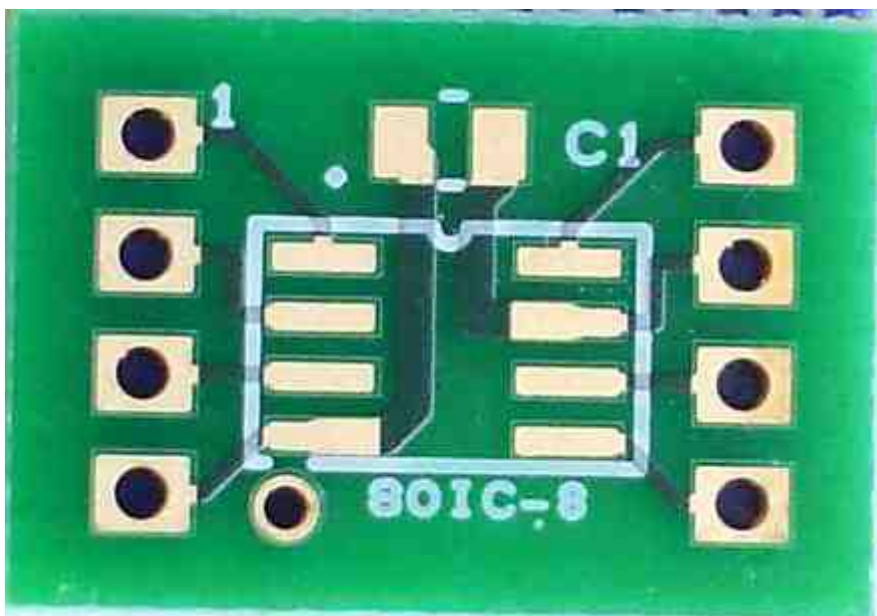
The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

The adapter uses a quality FR4 pcb, with solder mask, to avoid shorts when hand soldered.

All holes are plated through.

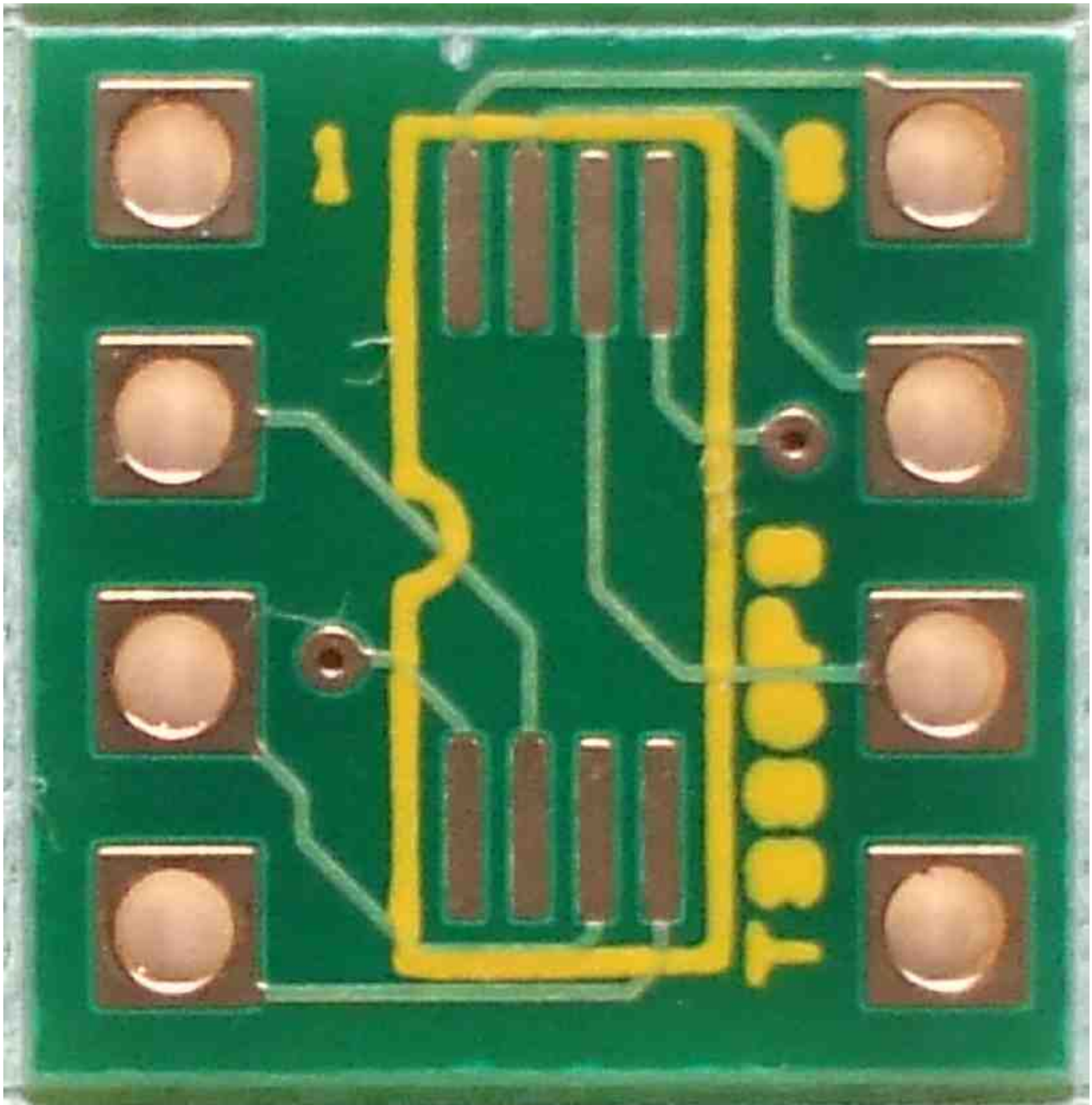
Added a plated hole for ground plane connection, that can be useful for some applications.

The PCB is scored.



ADAPTER for TSSOP8 / SOT505 devices

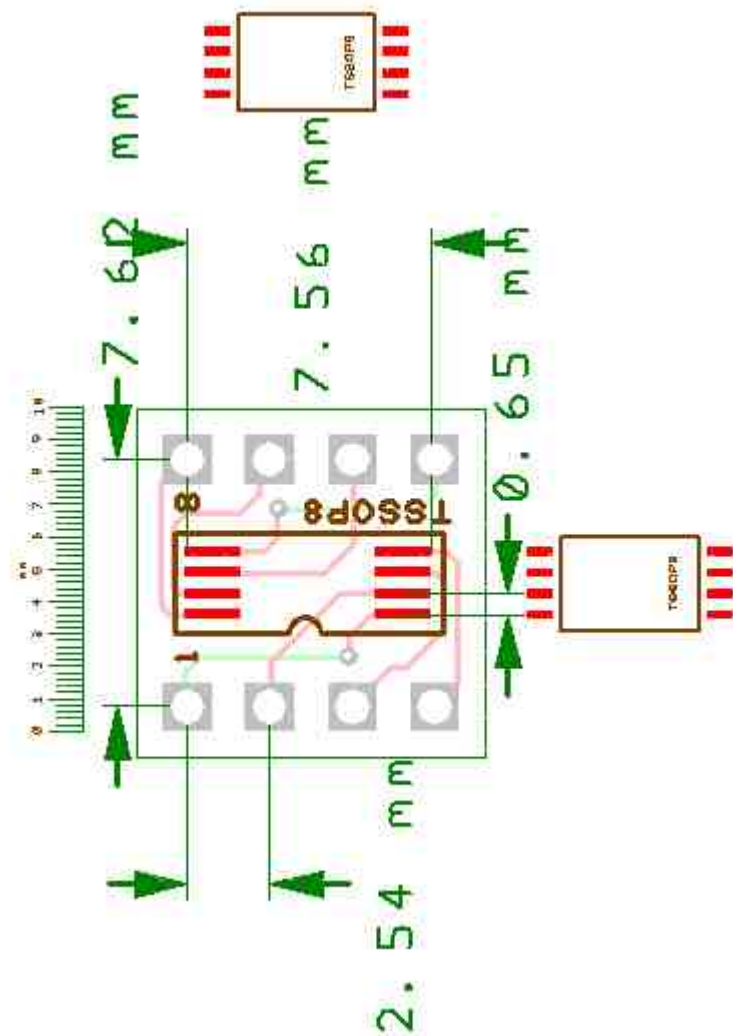
PCB dimensions: 10.7 x 10.7 x 1,5 mm



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.

Dimensions with a simulated chip in the same scale:



Our reference: 08283A

Product description: Breadboard adapter for TSSOP8 / SOT505 devices. Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane is useful as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for TSSOP8 /SOT505

http://www.irf.com/package/outline/po_tssop8.pdf

<http://www.fairchildsemi.com/dwg/MT/MTC08.pdf>

<http://www.diodes.com/products/packages/index.php?cp:e=5&cp:id=163>

<http://www.southseasemi.com/ds/outline/Package%20TSSOP-8%20%20%28Rev%202.0%29.pdf>

<http://www2.renesas.com/discrete/en/package/pd/pwtssop8.html>

<http://www.semicon.toshiba.co.jp/eng/product/transistor/package/tssop-8.html>

<http://www2.renesas.com/discrete/en/package/pd/pwtssop8.html>

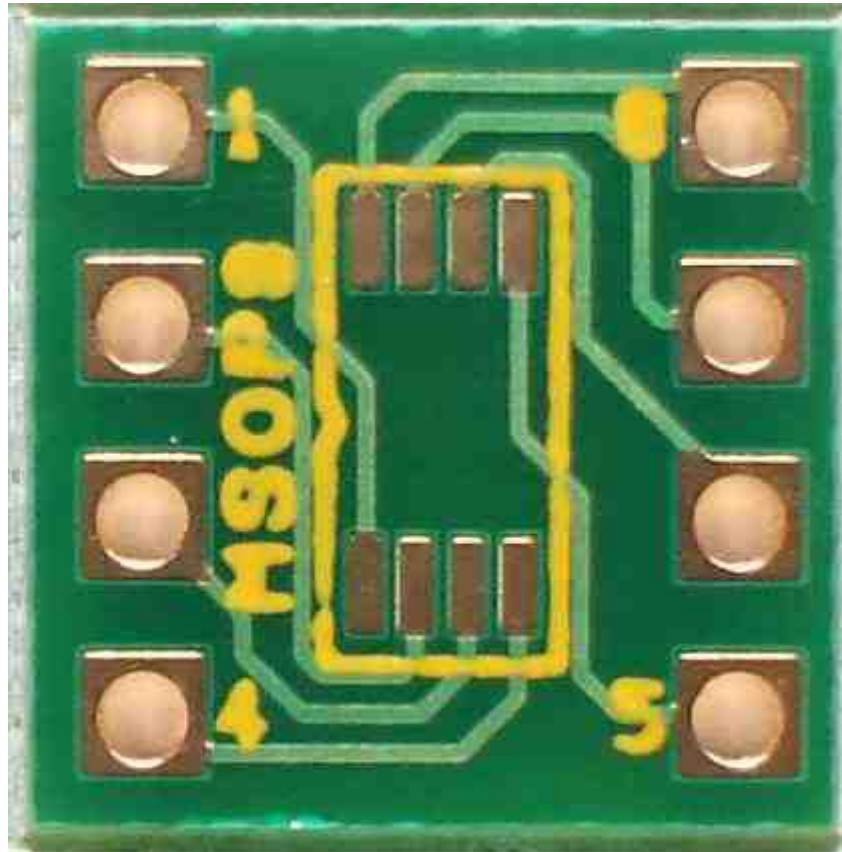
http://www.nxp.com/documents/outline_drawing/sot505-1_po.pdf

http://pdfserv.maxim-ic.com/land_patterns/90-0248.PDF

<http://www.vishay.com/docs/71201/71201.pdf>

ADAPTER for MSOP8 devices (our 2nd edition)

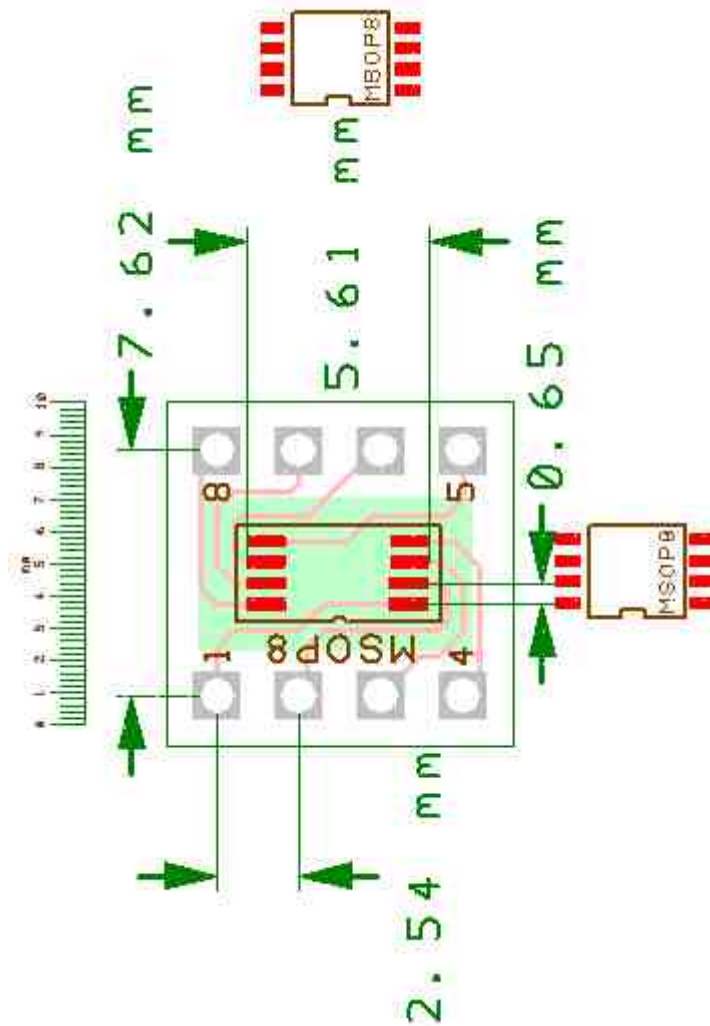
PCB dimensions: 10.7 x 10.7 x 1,5 mm



In above photo is visible the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask exposes only the pads to solder. Is important for devices with a small pitch. Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that is easy to happen when the device is hand soldered.

Dimensions of the adapter with a simulated chip in the same scale:



Our reference: 08231B

Product description: Breadboard adapter for MSOP8 devices. Accept row connectors with 2,54 mm pitch to be breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane is useful as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for MSOP8

<http://www.vishay.com/docs/71244/71244.pdf>

<http://www.fairchildsemi.com/dwg/MU/MUA08A.pdf>

http://www.analog.com/static/imported-files/packages/PKG_PDF/MSOP%28RM%29/RM_8.pdf

<http://www.ti.com/lit/an/sbfa015a/sbfa015a.pdf>

<http://diodes.com/datasheets/ap02001.pdf>

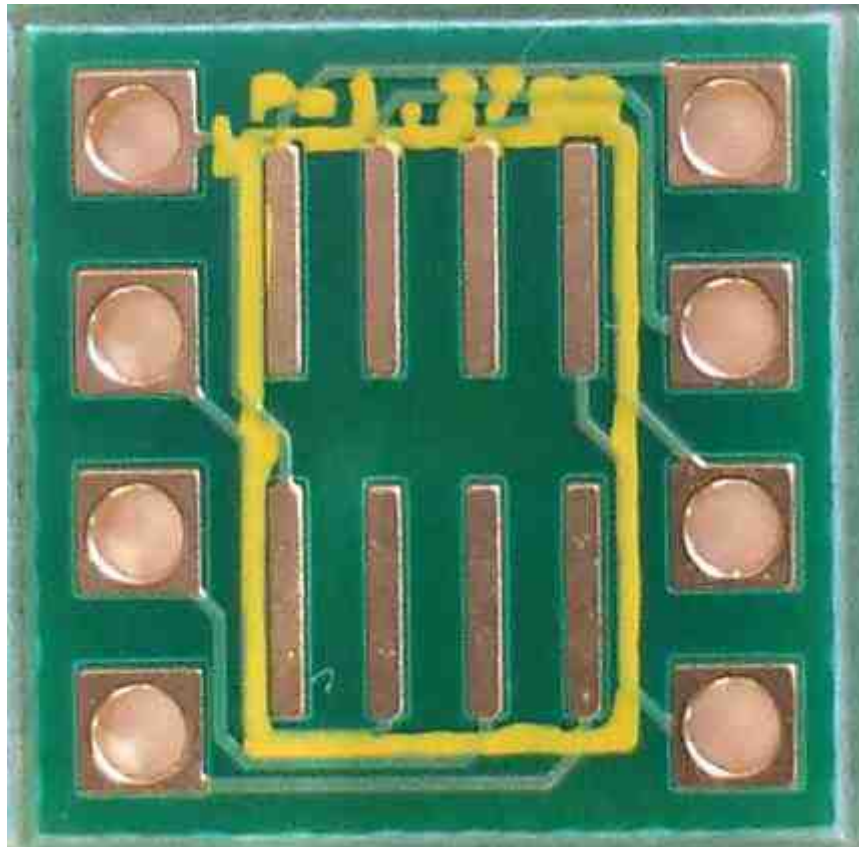
http://www.diodes.com/zetex/_pdfs/3.0/pack/MSOP8.pdfhttp://www.protekdevices.com/Assets/Documents/Package_Outlines/msop8_pack.pdf

<http://www.intersil.com/data/pk/M8.118A.pdf>

GENERIC ADAPTER with 8 pin PITCH 1.27mm

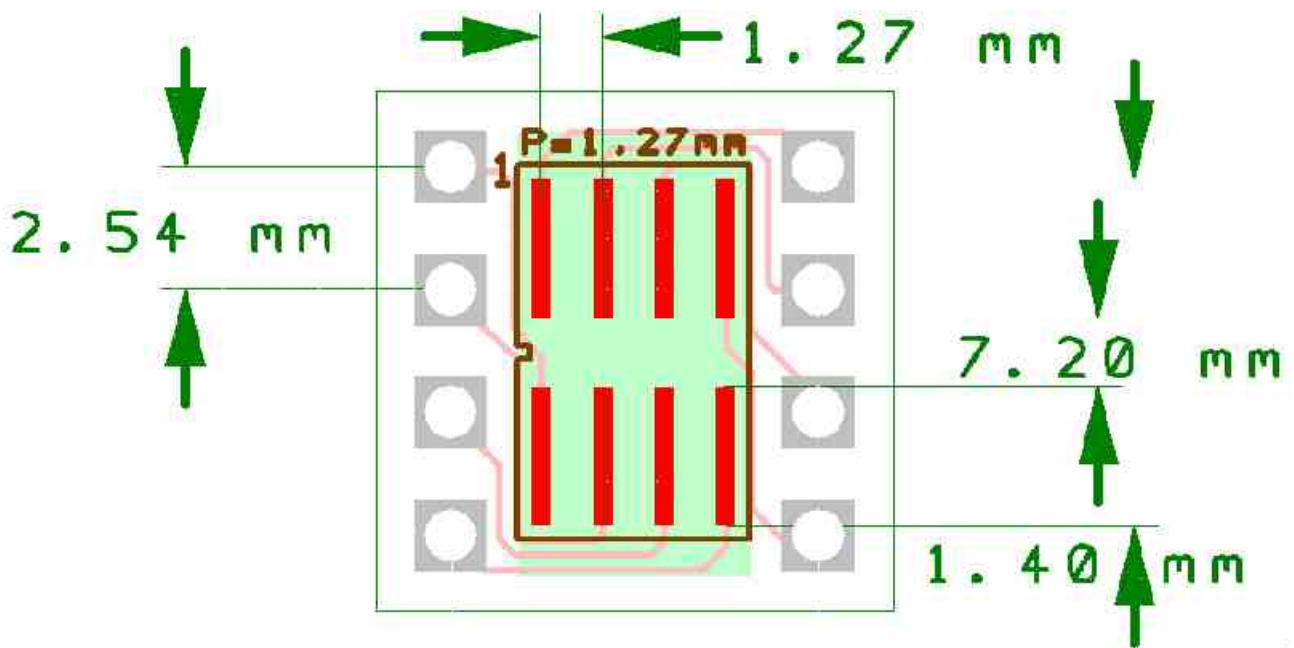
8 PIN Breadboard adapter for devices with 1.27mm pitch

PCB dimensions: 10.7 x 10.7 x 1,5 mm



The close-up show the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.



Our reference: 08P127A

Product description: 8 pin breadboard adapter for devices with a pitch = 1.27 mm
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Heatsink: bottom layer is a small heatsink.

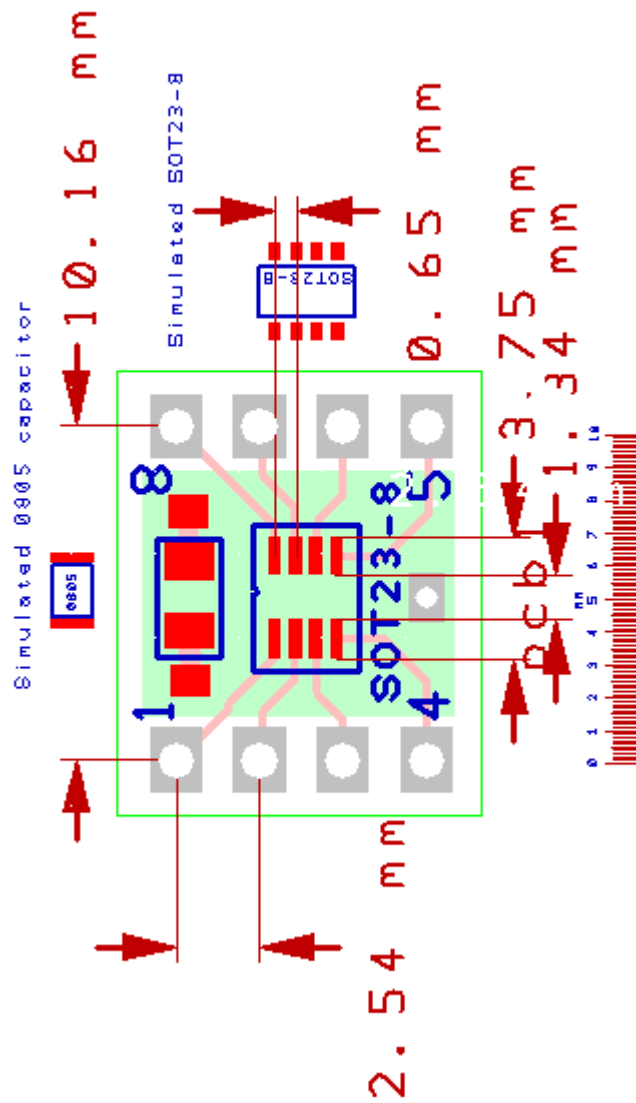
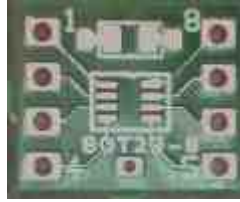
PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for best soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

SOT23-8 ADAPTER

Breadboard adapter for SOT23-8 (8pin devices)



Our reference: 08171A

PCB dimensions: 12 x 14,7 x 1,5 mm

Product description: Breadboard adapter for SOT23-8 devices , for example for amplifiers, data conversion, power management, digital pots and others.

Decoupling is available: Accept one local 0805 decoupling capacitor, if necessary connected with 2 small wires.

Ground plane: a ground connection is available for testing.

Heat sink: the ground plane acts also as a small heat sink, usefull in situations of high power dissipation.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

PCB contour: The pcb contour is milled with small bridges.

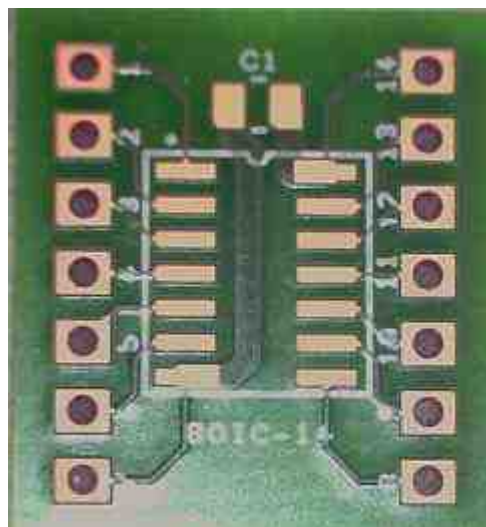
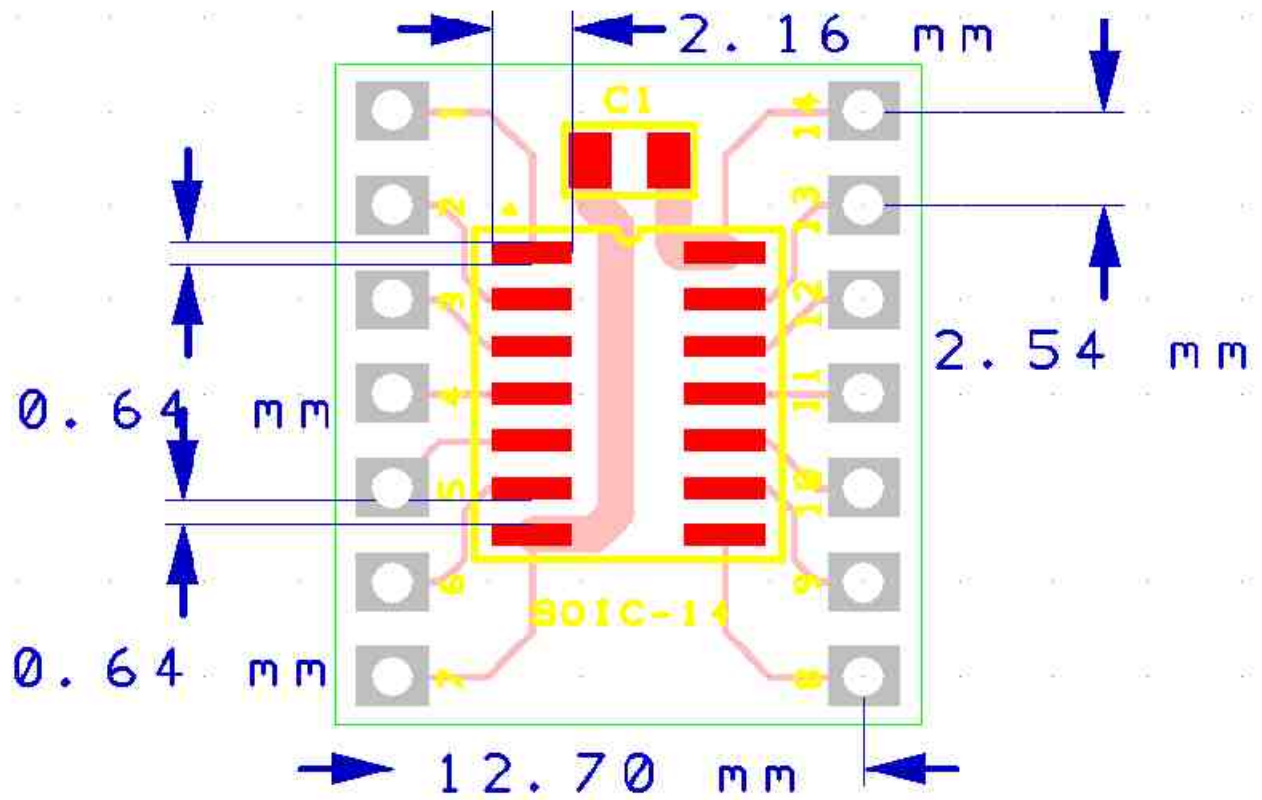
Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.

SOIC-14 ADAPTER

Breadboard adapter for SOIC 14pin devices:

PCB dimensions: 18,3 x 20,6 x 1,5 mm



Our reference: 14701

Product description: breadboard adapter for SOIC14 devices. Accept a 0805 decoupling capacitor connected between pins 7 and 14. Accept row connectors with a 2,54 mm pitch, breadboard compatible.

The row connectors are available separately.

Technology: plated through FR4 pcb, with isolating solder mask, to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of the pads in this adapter, is chemical gold plated.

PCB contour: the pcb contour is scored

Hand soldering: should be used a liquid flux, for easy soldering the gold surface.

Handling: is important to avoid fingerprints over the gold plated surface of the pads, before soldering.

Links for SOIC-14:

<http://www.fairchildsemi.com/dwg/M1/M14A.pdf>

http://www.nxp.com/documents/outline_drawing/sot108-1_po.pdf

<http://www.national.com/packaging/mkt/m14a.pdf>

<http://focus.ti.com/lit/ml/mpds177f/mpds177f.pdf>

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

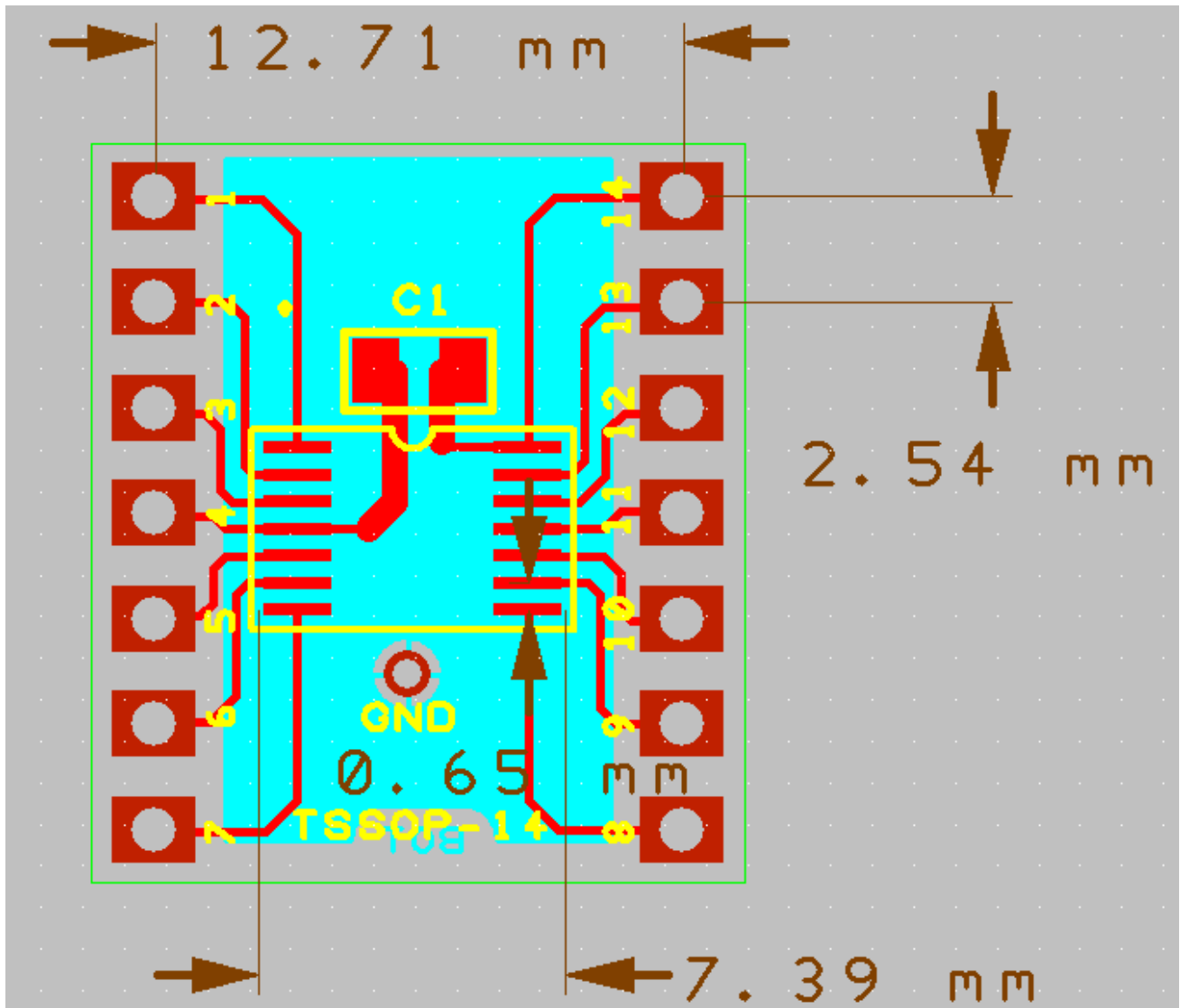
To any questions or feedback please email:

sales@breadboard-adapters.com

TSSOP 14 pin ADAPTER

Breadboard adapter for TSSOP 14pin devices:

PCB dimensions: 19,5 x 16,8 x 1,5 mm



The surface of pads in this adapter is chemical gold plated.

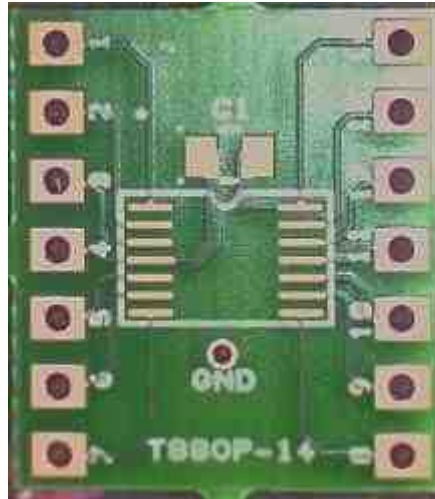
The adapter uses a FR4 pcb, with solder mask, to avoid shorts when hand soldered.

All holes are plated through.

Accept one 0805 decoupling capacitor C1 (pin 4 and 14), useful for many popular chips;

Is available one plated hole for ground plane connection, that can be useful for some applications.

PCB miled with small bridges.



Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

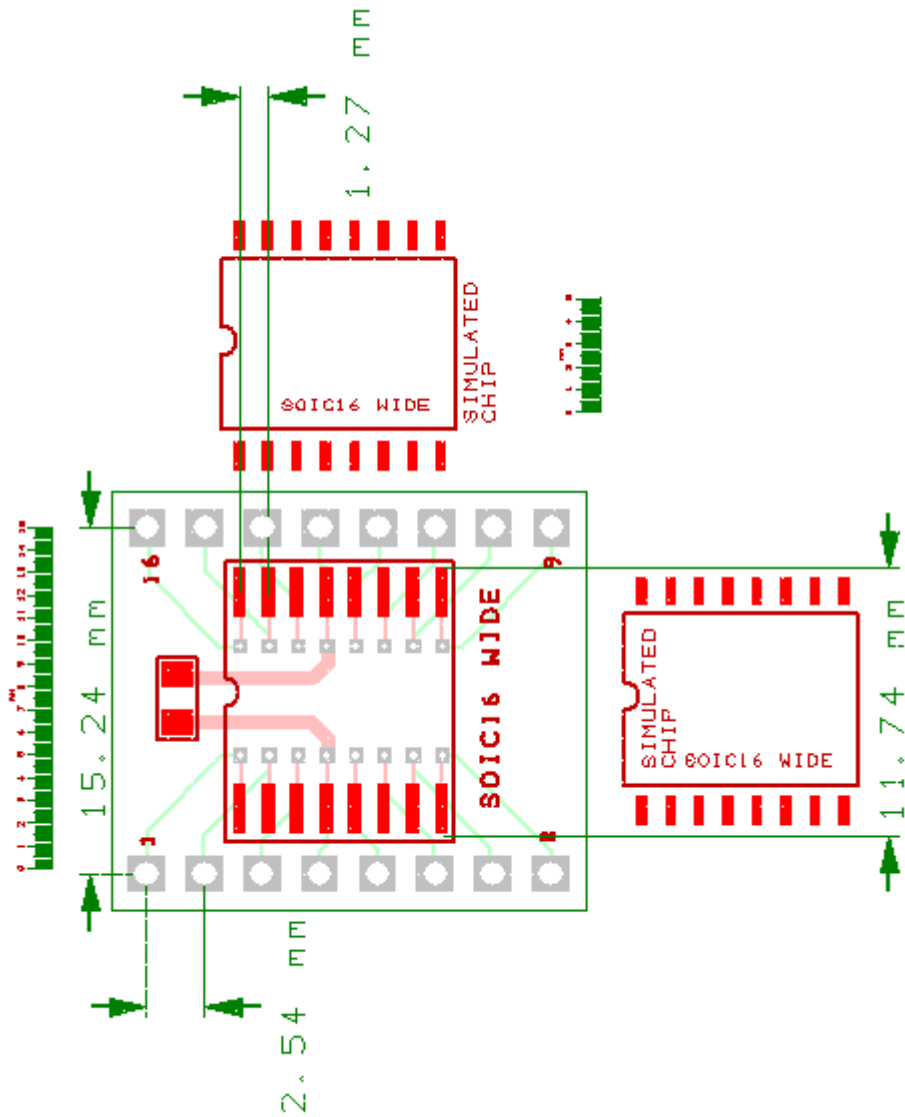
To any questions or feedback please email:

sales@breadboard-adapters.com

SOIC16 WIDE ADAPTER

Breadboard adapter for SOIC 16pin wide devices:

PCB dimensions: 18,5 x 20,9 x 1,5 mm



Our reference: 16587A

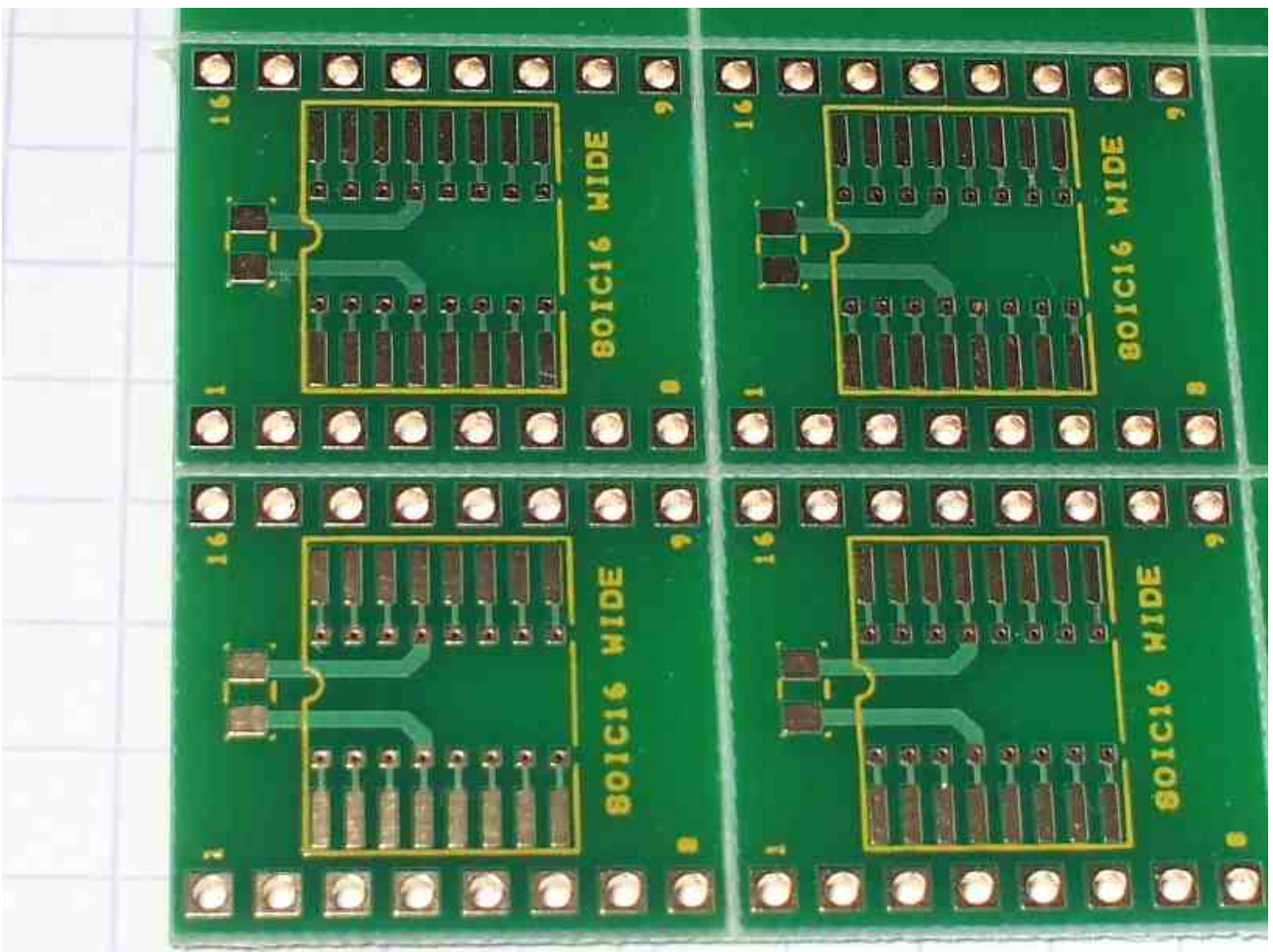
Product description: Breadboard adapter for SOIC16 wide devices.
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

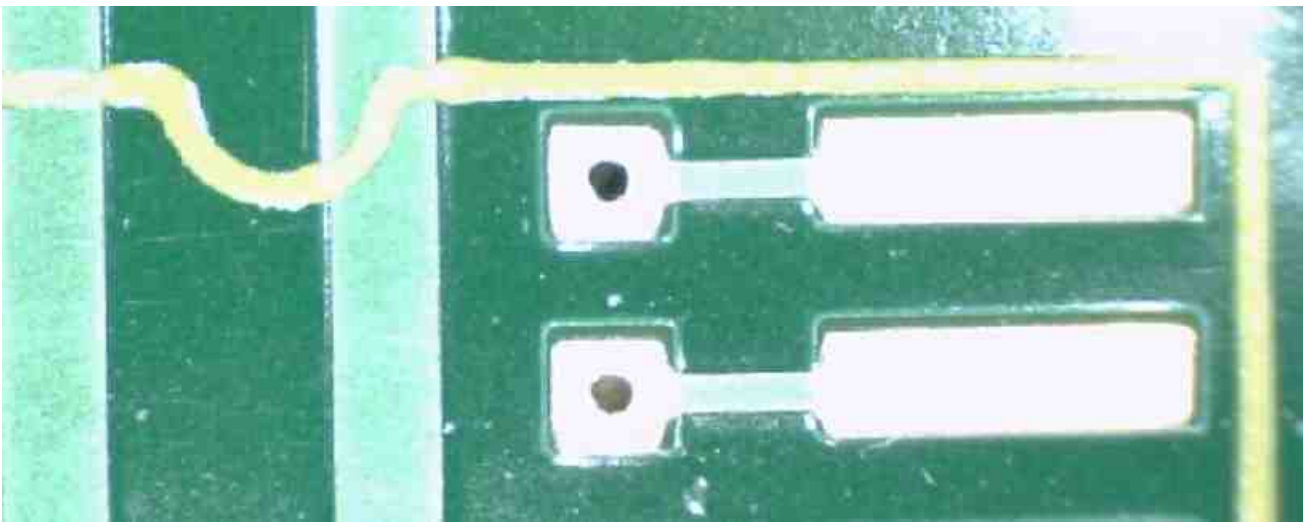
PCB contour: the pcb contour is scored easy to break.

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.



Above photo shows 4 adapters for SOIC16W in a scored pcb.



Above photo is a close up to show the solder mask, with protecting windows around the pads. Solder mask exist only around pads and vias and is used to minimize the risk of building solder bridges, between pads, when the SOIC is hand soldered.

Links:

http://www.onsemi.com/pub_link/Collateral/751BH.PDF

<http://www.fairchildsemi.com/dwg/M1/M16B.pdf>

[http://www.analog.com/static/imported-files/packages/PKG_PDF/SOIC_WIDE_\(RW\)/RW_16.pdf](http://www.analog.com/static/imported-files/packages/PKG_PDF/SOIC_WIDE_(RW)/RW_16.pdf)

http://pdfserv.maxim-ic.com/land_patterns/90-0107.PDF

<http://www.national.com/packaging/mkt/m16b.pdf>

<http://www.irf.com/package/cic/16leadsoicwidepo.pdf>

<http://www.skyworksinc.com/uploads/documents/200123K.pdf>

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

To any questions or feedback please email:

sales@breadboard-adapters.com

GENERIC ADAPTER with 16 pin PITCH 0.5mm

16 PIN Breadboard adapter for devices with 0.5mm pitch

PCB dimensions: 18,5 x 20,9 x 1,5 mm

Dimensions of our adapter 16P05A :

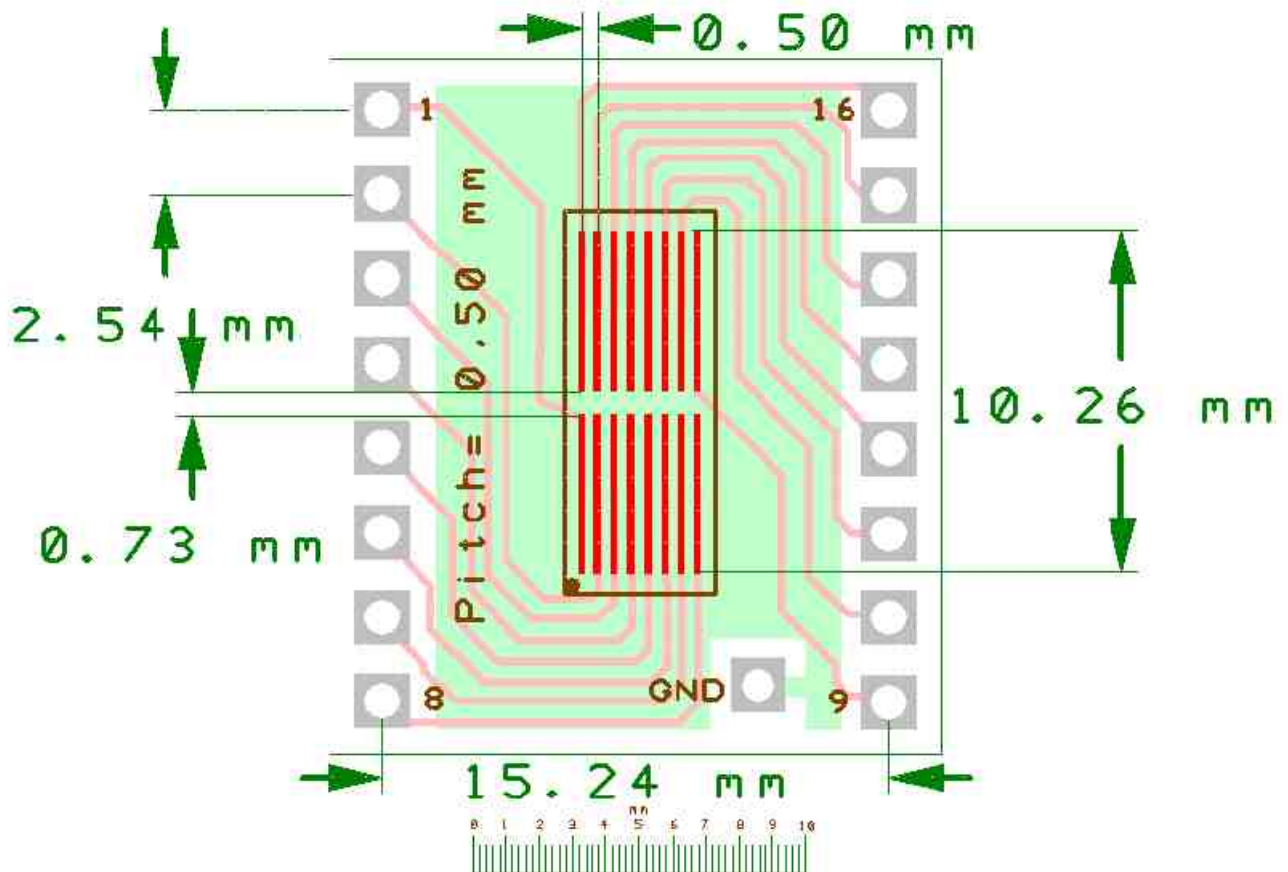
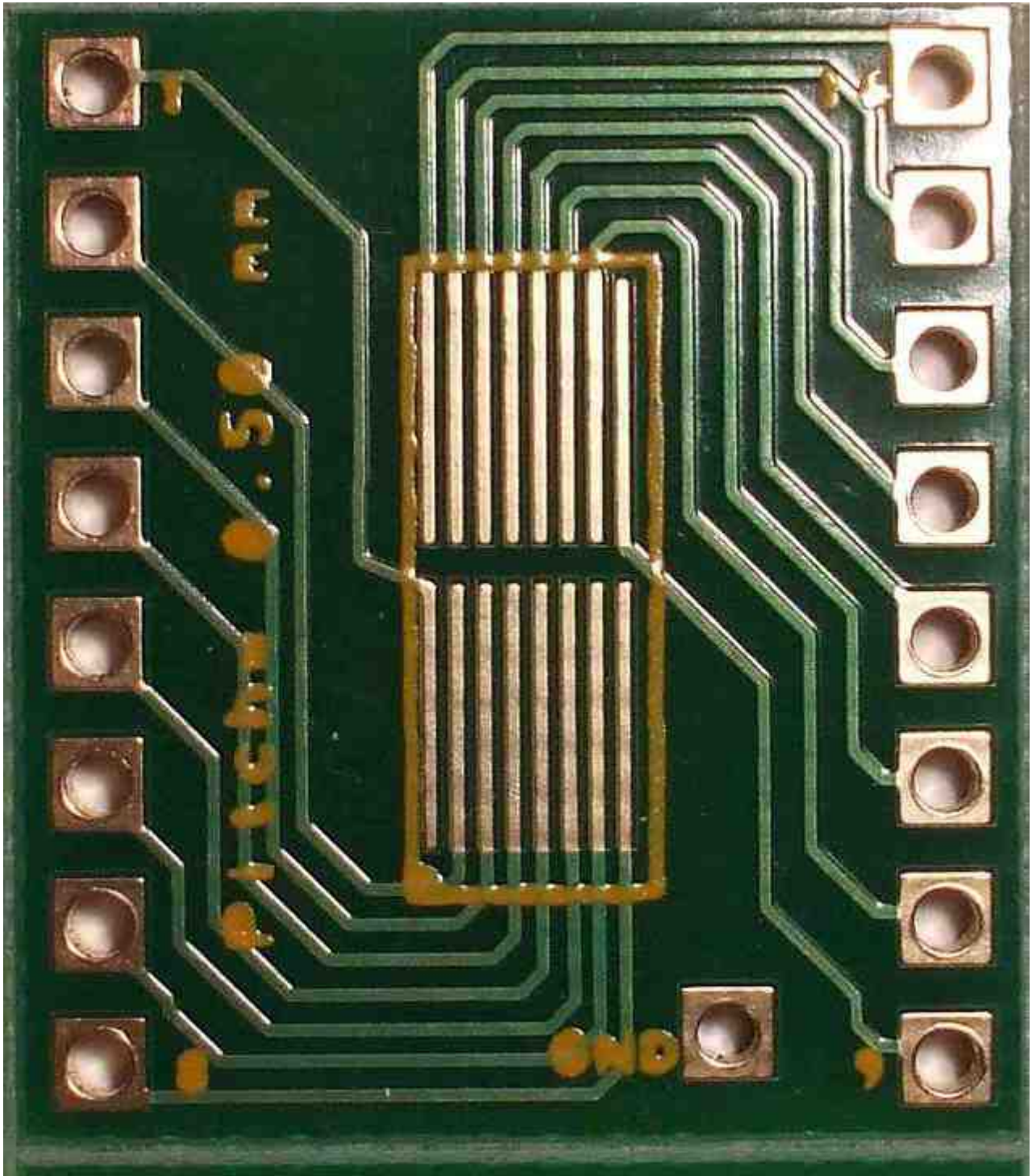
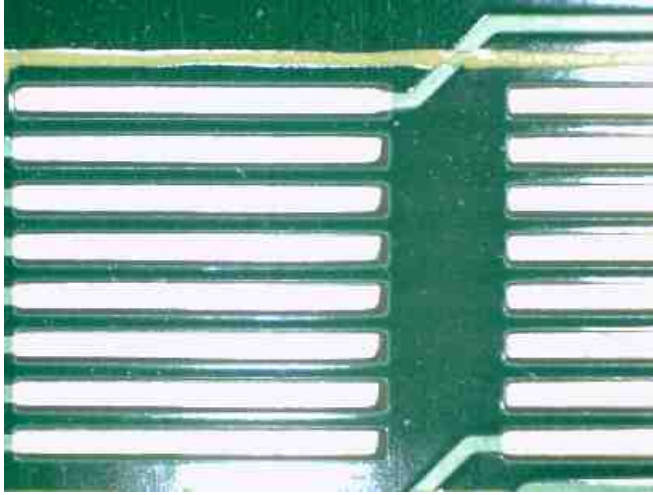


Photo of our adapter with metalized holes



The following close-up show the green solder mask around the pads and protecting the tracks.



Solder mask is important for devices with a pitch so small as 0.5mm

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Our reference: 16P05A

Product description: Breadboard adapter for devices with a pitch = 0.5 mm
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SMD soldering:

http://www.4shared.com/document/Ma1BZxT7/Low_Cost_SMD_Soldering_Guide.html
http://www.4shared.com/get/oyPNr6_C/smd_soldering.html

Please visit our site for updates and new adapter types:

<http://www.breadboard-adapters.com/>

To any questions or feedback please email:

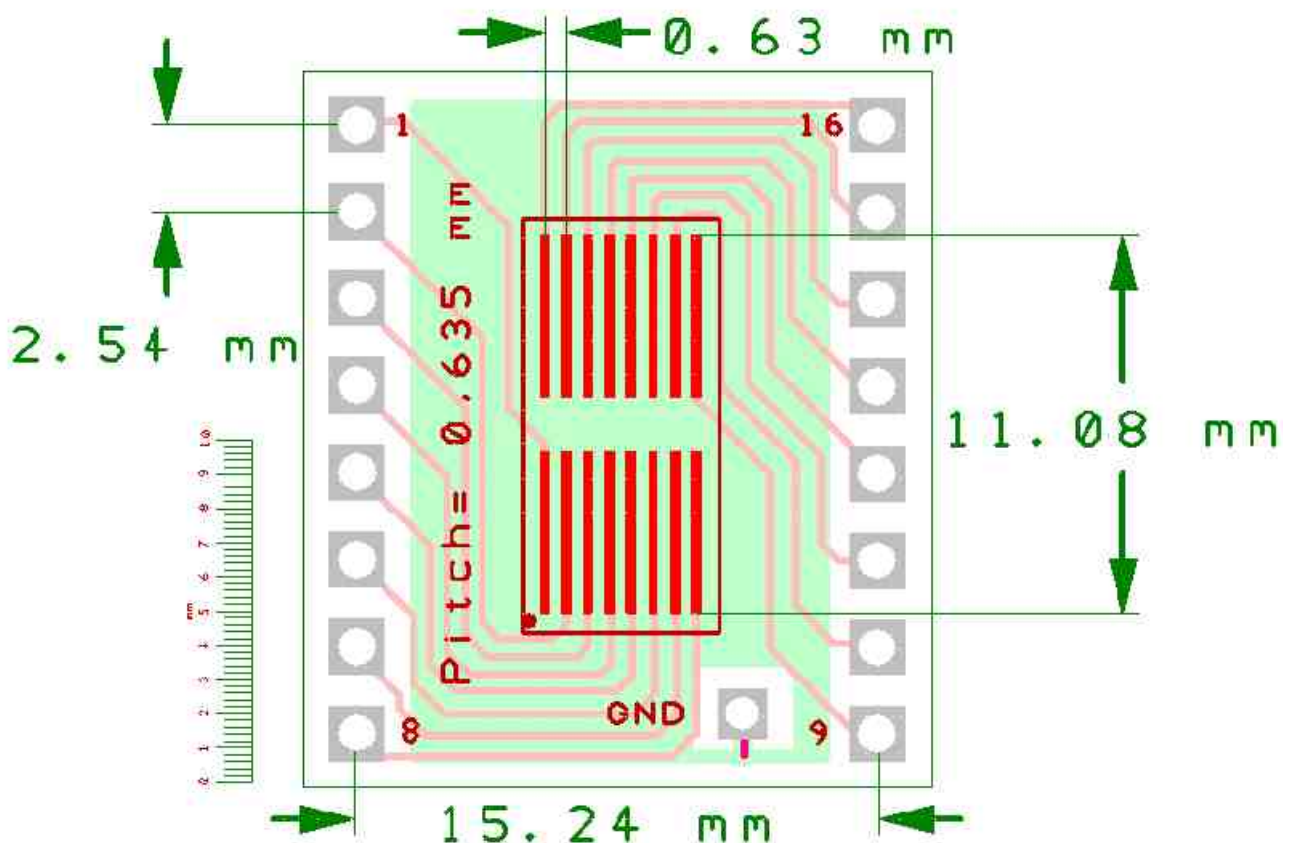
sales@breadboard-adapters.com

GENERIC ADAPTER with 16 pin PITCH 0.635mm

16 PIN Breadboard adapter for devices with 0.635mm pitch

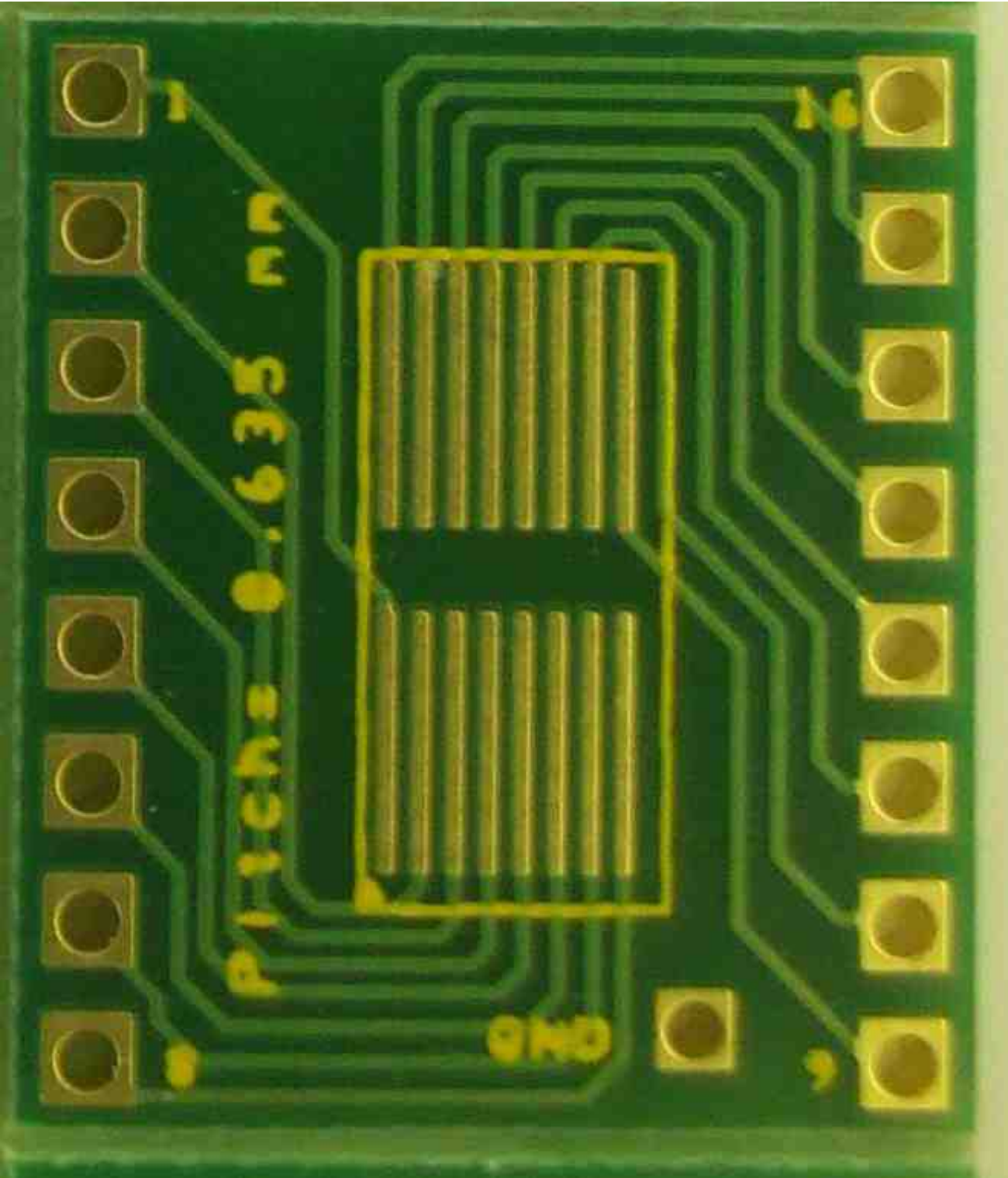
PCB dimensions: 18,5 x 20,9 x 1,5 mm

Dimensions of our adapter 16P064A :

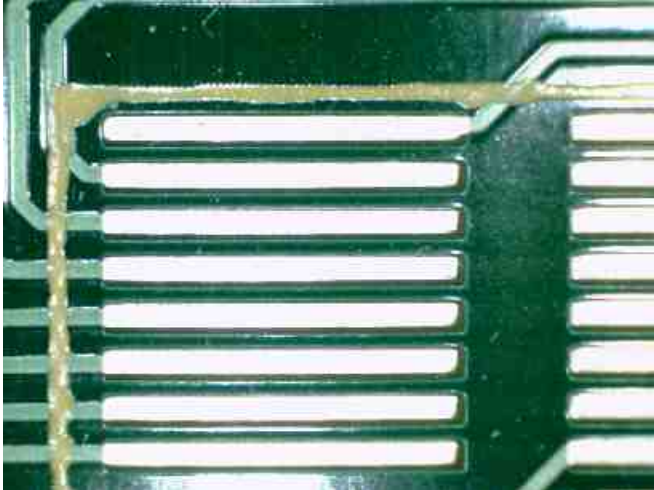


Exemples of application: Fairchild [QSOP16](#) ; NXP [SSOP16 \(SOT519\)](#) ;

Photo of our adapter with metalized holes:



The following close-up show the green solder mask around the pads and protecting the tracks in this adapter.



Solder mask is important for devices with a pitch so small as 0.635mm.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Our reference: 16P064A

Product description: Breadboard adapter for devices with a pitch = 0.635 mm
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

Hand soldering: should be applied a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Basic information:

<http://www.polyonics.com/PubDocs/SMT%20Dictionary.pdf>

Links for SMD soldering:

http://www.4shared.com/document/Ma1BZxT7/Low_Cost_SMD_Soldering_Guide.html

http://www.4shared.com/get/oyPNr6_C/smd_soldering.html

Please visit our site for updates and new adapter types:

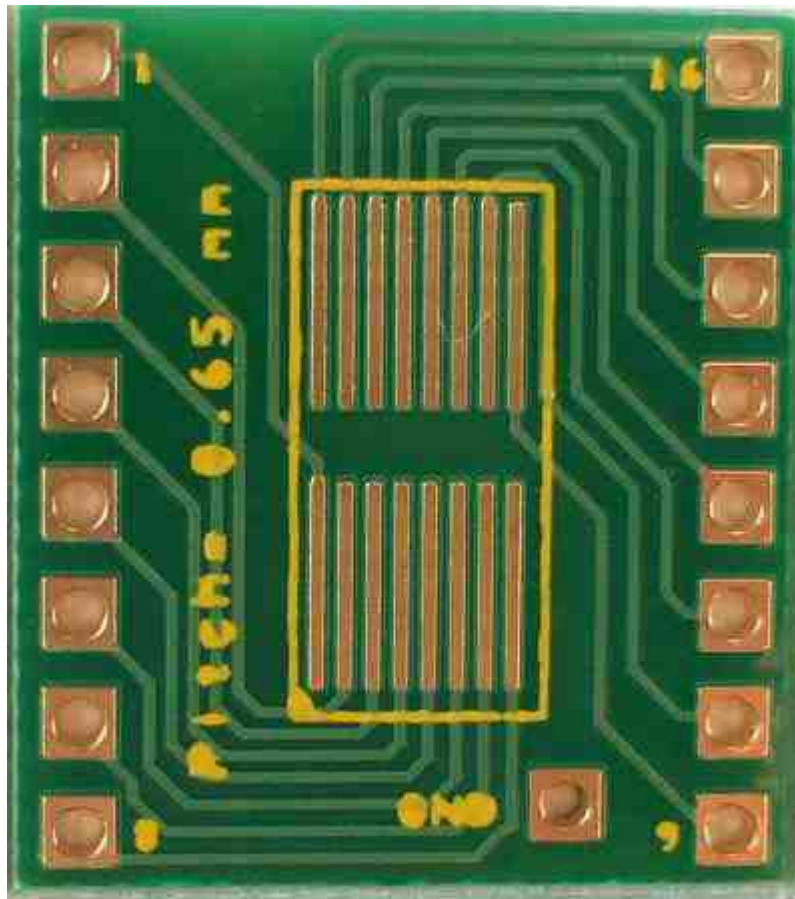
<http://www.breadboard-adapters.com/>

To any questions or feedback please email: sales@breadboard-adapters.com

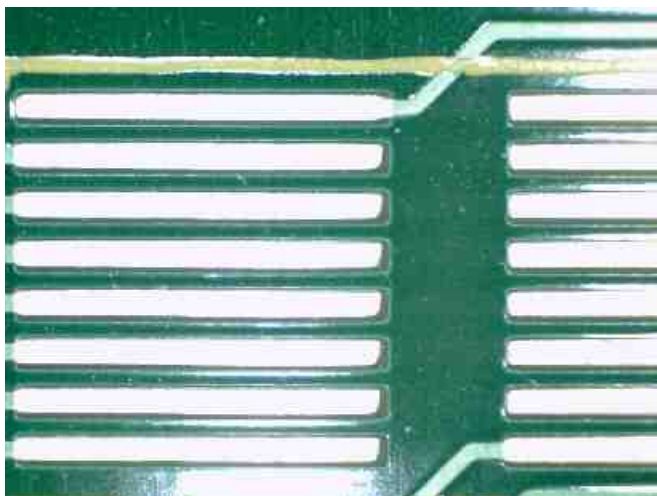
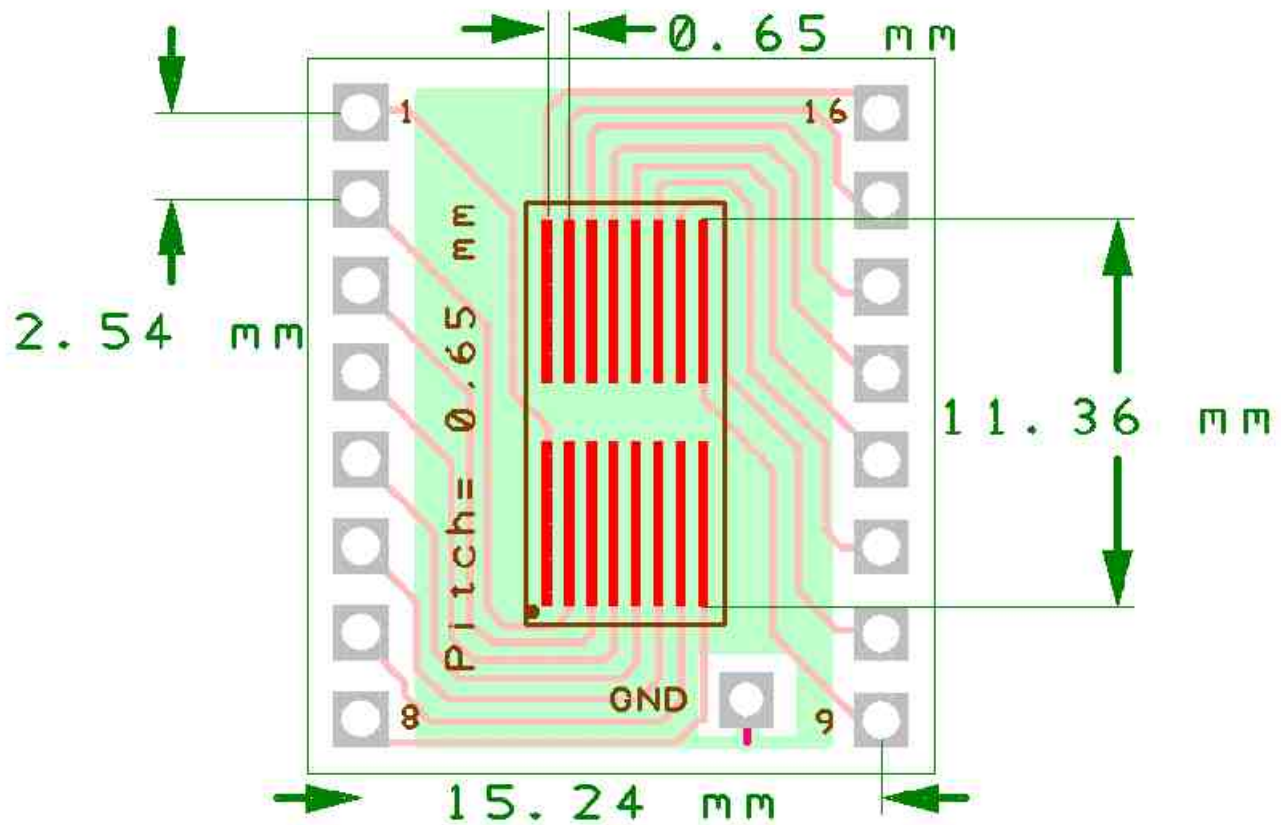
GENERIC ADAPTER with 16 pin PITCH 0.65mm

16 PIN Breadboard adapter for devices with 0.65mm pitch

PCB dimensions: 18,5 x 20,9 x 1,5 mm



Dimensions of our adapter 16P065A :



The following close-up show the green solder mask around the pads and protecting the tracks in this adapter.

Solder mask is important for devices with a pitch so small as 0.65mm.

Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that are easy to happen when the device is hand soldered.

Our reference: 16P065A

Product description: Breadboard adapter for devices with a pitch = 0.65 mm
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through. The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available. The ground plane is also useful also as a small heatsink.

PCB contour is scored: if several units are supplied, is easy to break in individual adap-

ters.

Hand soldering: should be applied a liquid flux, for best soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Basic information:

<http://www.polyonics.com/PubDocs/SMT%20Dictionary.pdf>

Links for SMD soldering:

http://www.4shared.com/document/Ma1BZxT7/Low_Cost_SMD_Soldering_Guide.html

http://www.4shared.com/get/oyPNr6_C/smd_soldering.html

Please visit our site for updates and new adapter types:

<http://www.breadboard-adapters.com/>

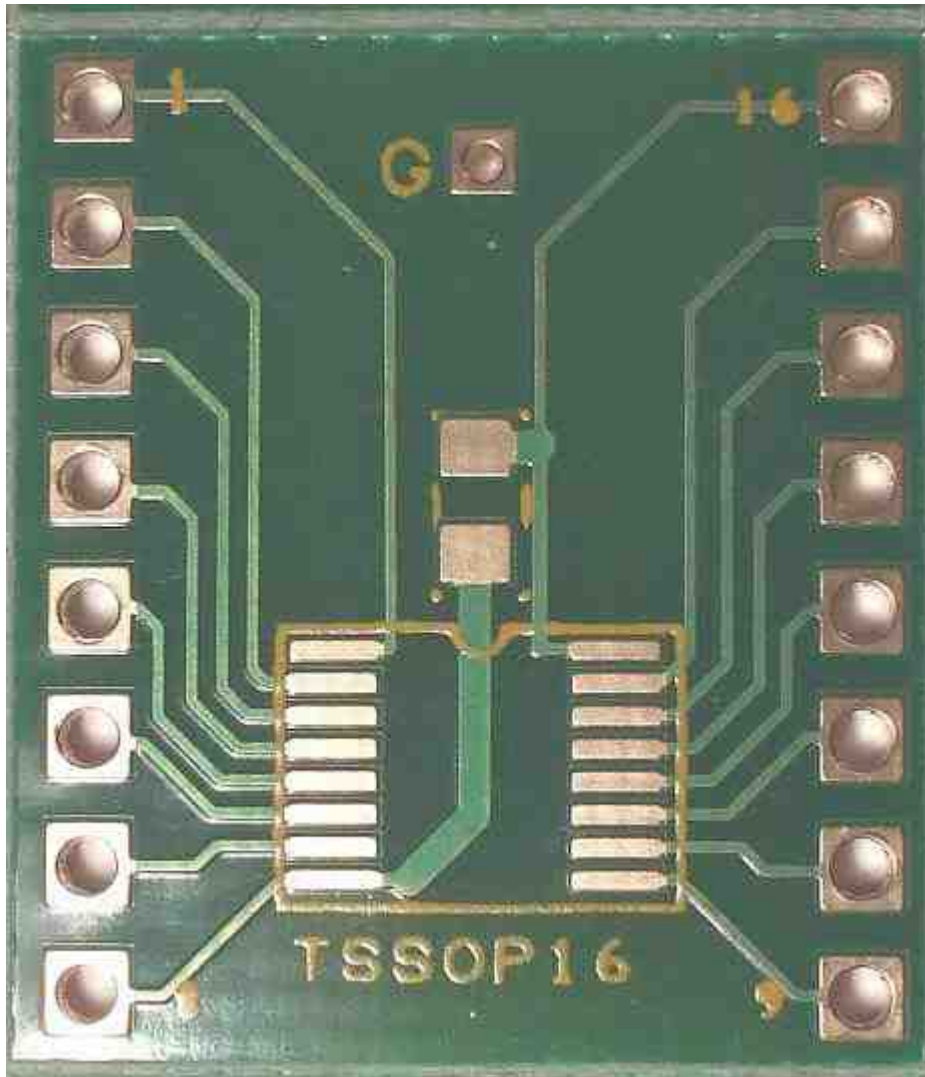
To any questions or feedback please email:

sales@breadboard-adapters.com

TSSOP16 ADAPTER

Breadboard adapter for TSSOP16

PCB dimensions: 18,5 x 20,9 x 1,5 mm



Above photo shows 1 adapter for TSSOP16 in a scored pcb.

The plated through holes are visible in this photo.

Our reference: 16087A

Product description: Breadboard adapter for TSSOP16.
Accept row connectors with 2,54 mm pitch: is breadboard compatible.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.
The surface of pads in this adapter, is chemical gold plated.

Ground plane: one ground plane connection is available, useful also as a small heatsink.

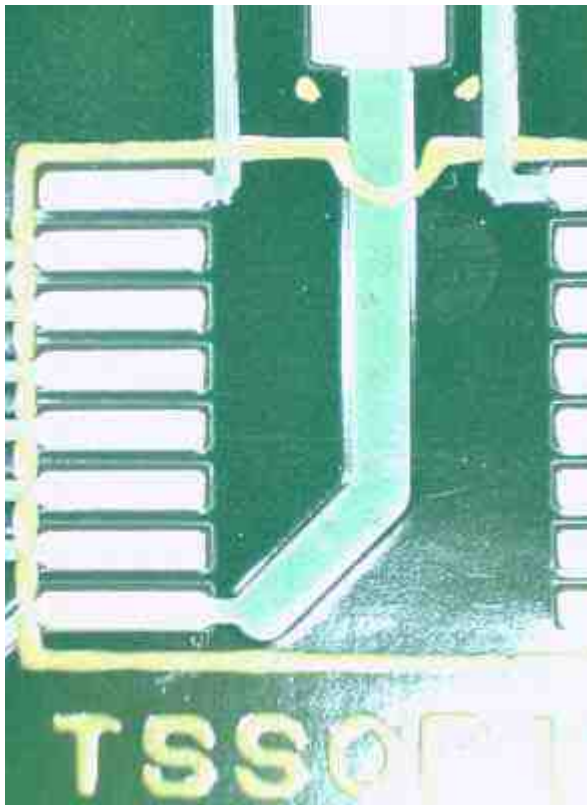
Decoupling: have tracks for a 0805 decoupling ceramic capacitor between pins 8 and 16.

PCB contour is scored: if several units are supplied, is easy to break in individual adapters.

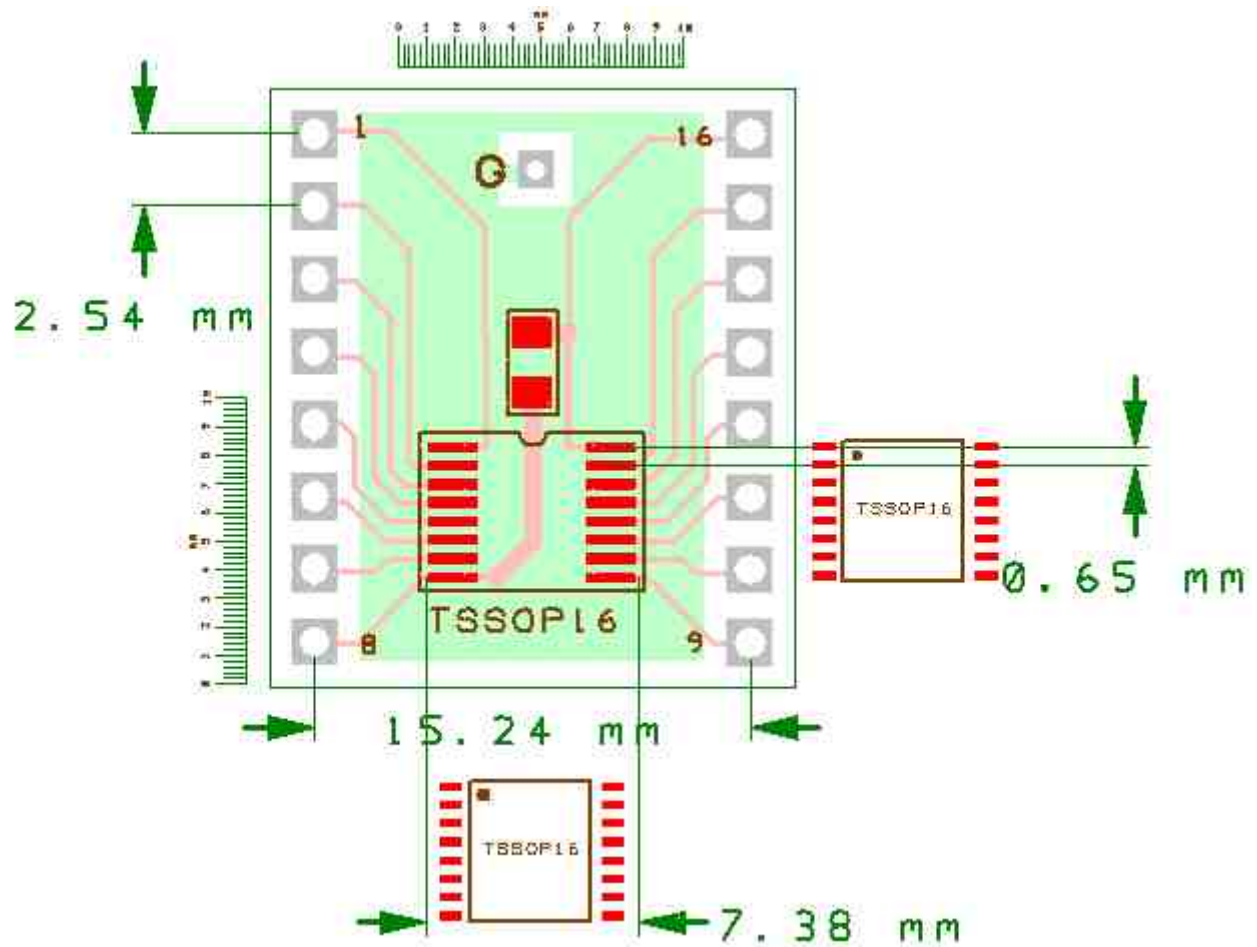
Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

The following close-up show the green solder mask around the pads and protecting the tracks.



Solder mask exist only around pads and is used to minimize the risk of building solder bridges between pads, that easy to happen when the device is hand soldered.



Links about this package:

TSSOP16

<http://www.national.com/packaging/parts/TSSOP.html#16>

http://www.onsemi.com/pub_link/Collateral/948AN.PDF

<http://www.fairchildsemi.com/dwg/MT/MTC16.pdf>

[http://www.analog.com/static/imported-files/footprints/TSSOP_EP\(RE\)/RE-16-2.pdf](http://www.analog.com/static/imported-files/footprints/TSSOP_EP(RE)/RE-16-2.pdf)

http://pdfserv.maxim-ic.com/land_patterns/90-0117.PDF

Please visit our site for updates and new adapter types:

<http://www.breadboard-adapters.com/>

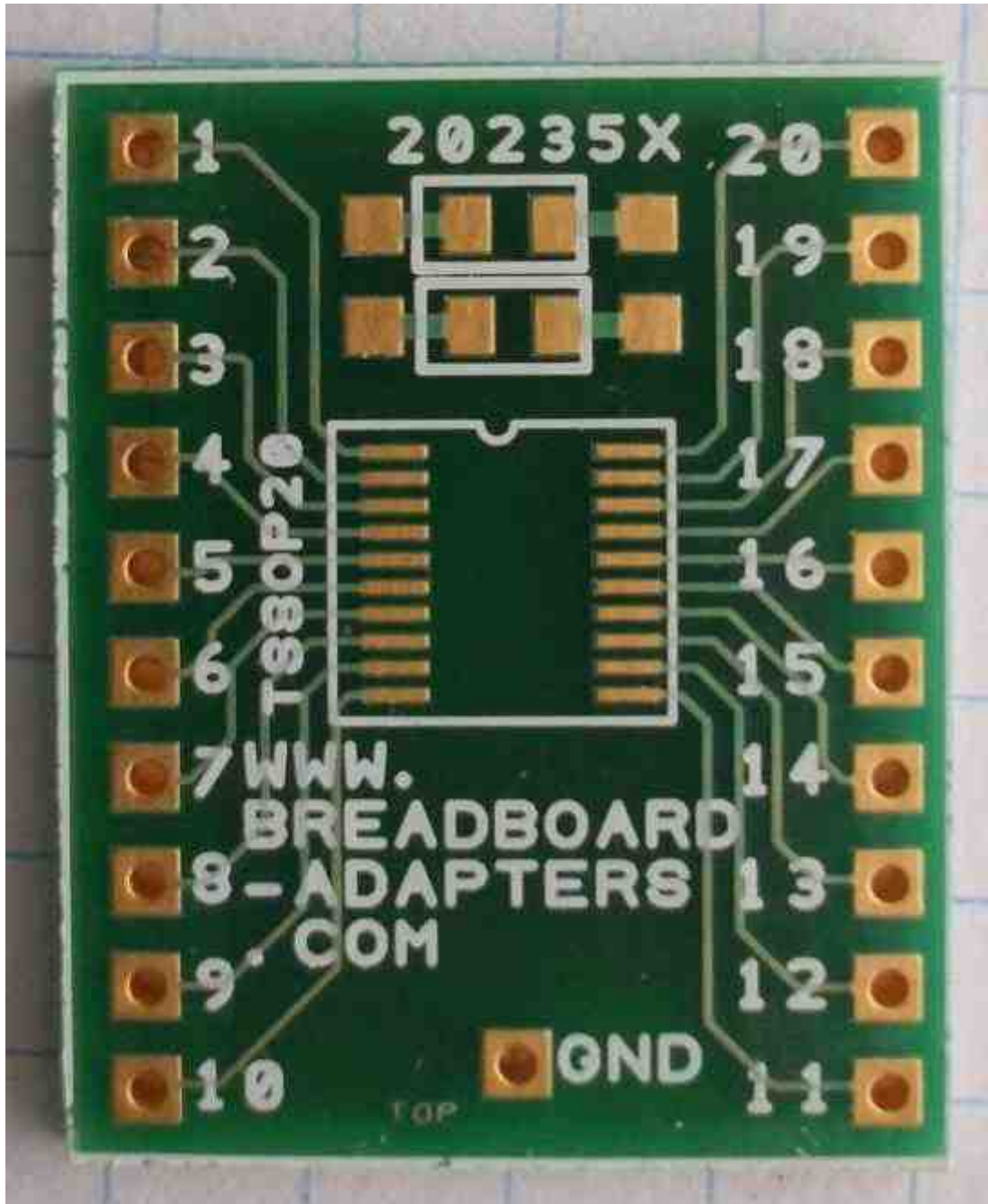
To any questions or feedback please email:

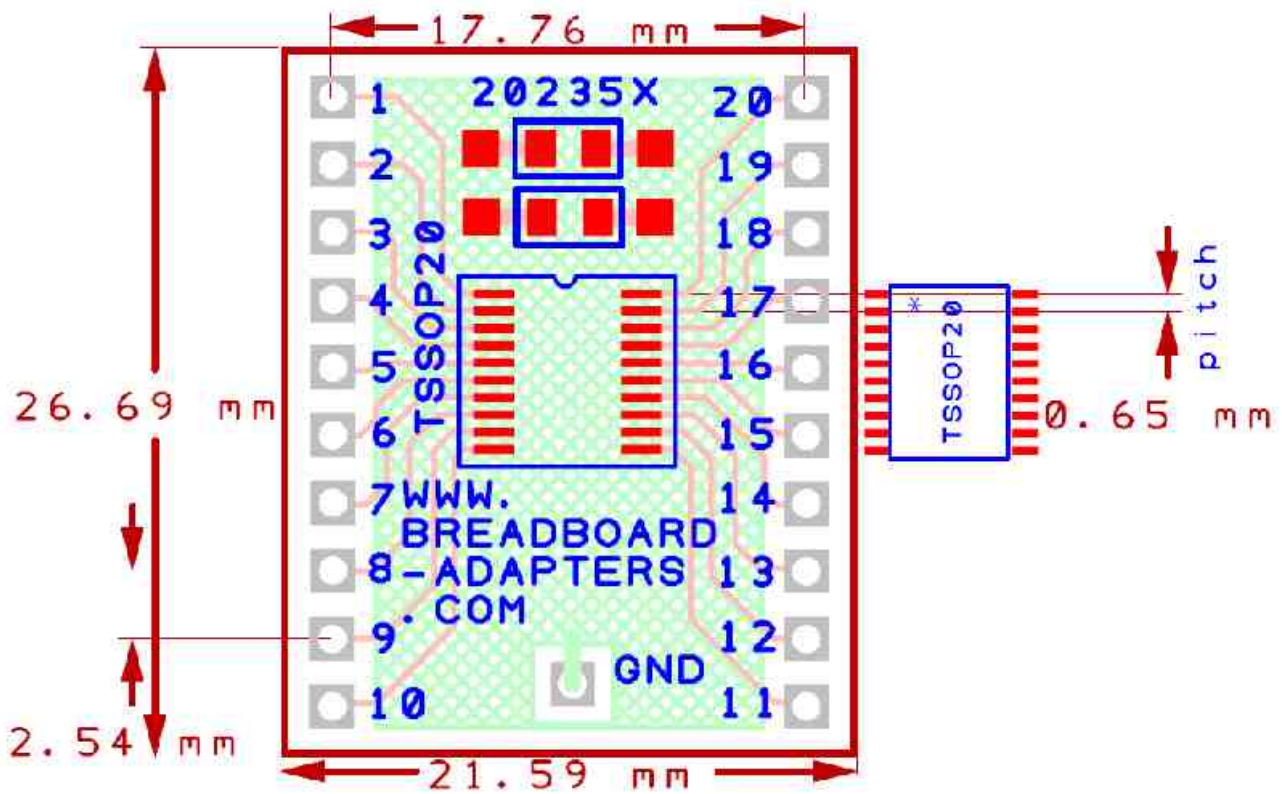
sales@breadboard-adapters.com

TSSOP20 breadboard adapter

Breadboard adapter for TSSOP20 devices:

PCB dimensions: 21,6 x 26,7 x 1,5 mm





Our reference: 20235X

Product description: Breadboard adapter for TSSOP20 devices.

Accept row connectors with 2,54 mm pitch, and is breadboard compatible. Accept 2 units 0805 devices (decoupling capacitors as example)

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

Ground connection: connected to the bottom layer.(green in the upper drawing)

PCB contour: The pcb contour is milled.

Hand soldering: should be used a liquid flux, for best soldering to the gold surface.

Handling: is important that before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for TSSOP20 package:

http://www.nxp.com/documents/reflow_soldering/SSOP-TSSOP-VSO-REFLOW.pdf

http://pdfserv.maxim-ic.com/package_dwgs/21-0066.PDF

http://cds.linear.com/docs/Packaging/TSSOP_20_05-08-1650.pdf

<http://www.fairchildsemi.com/dwg/MT/MTC20.pdf>

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

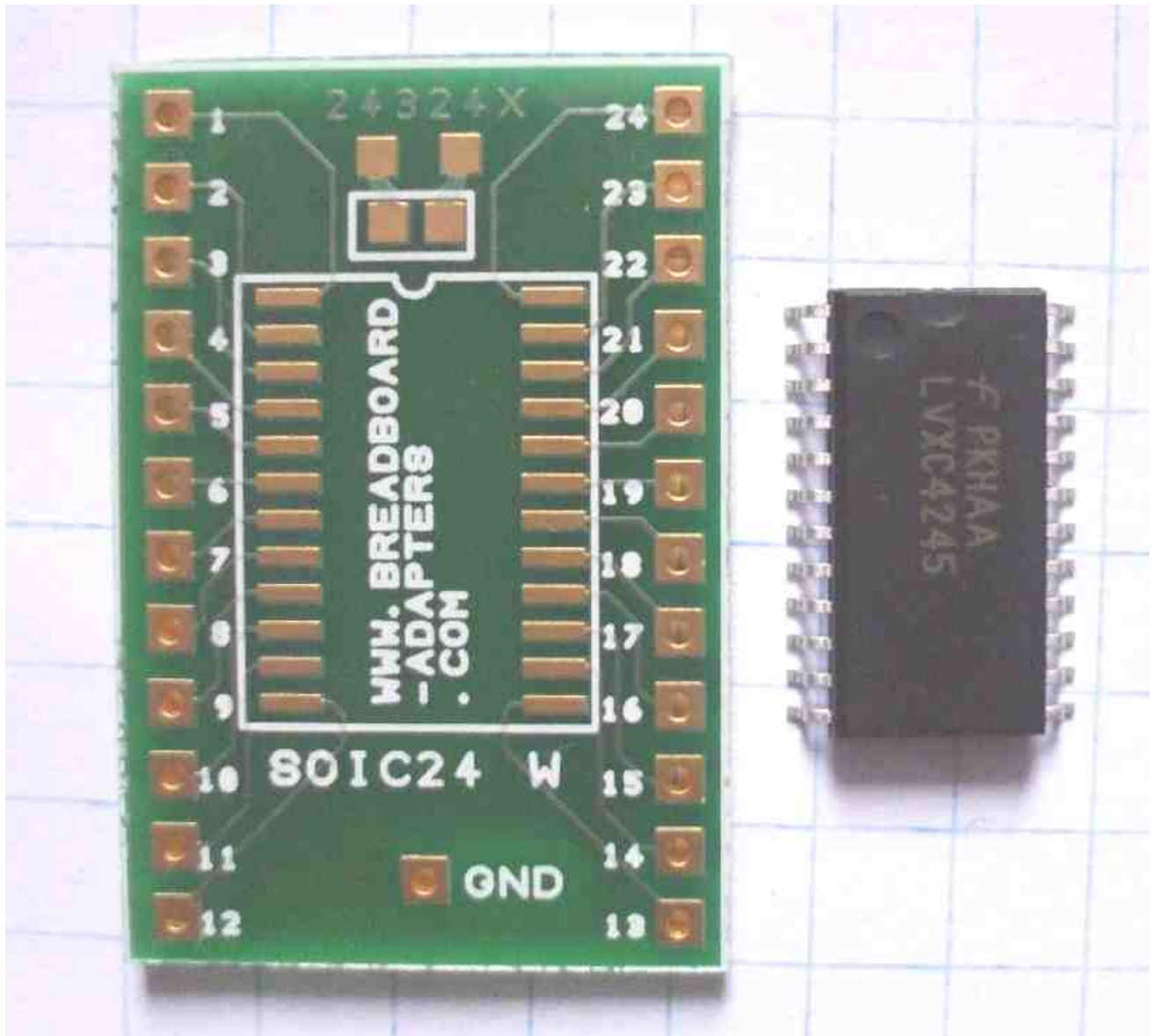
To any questions or feedback please email:

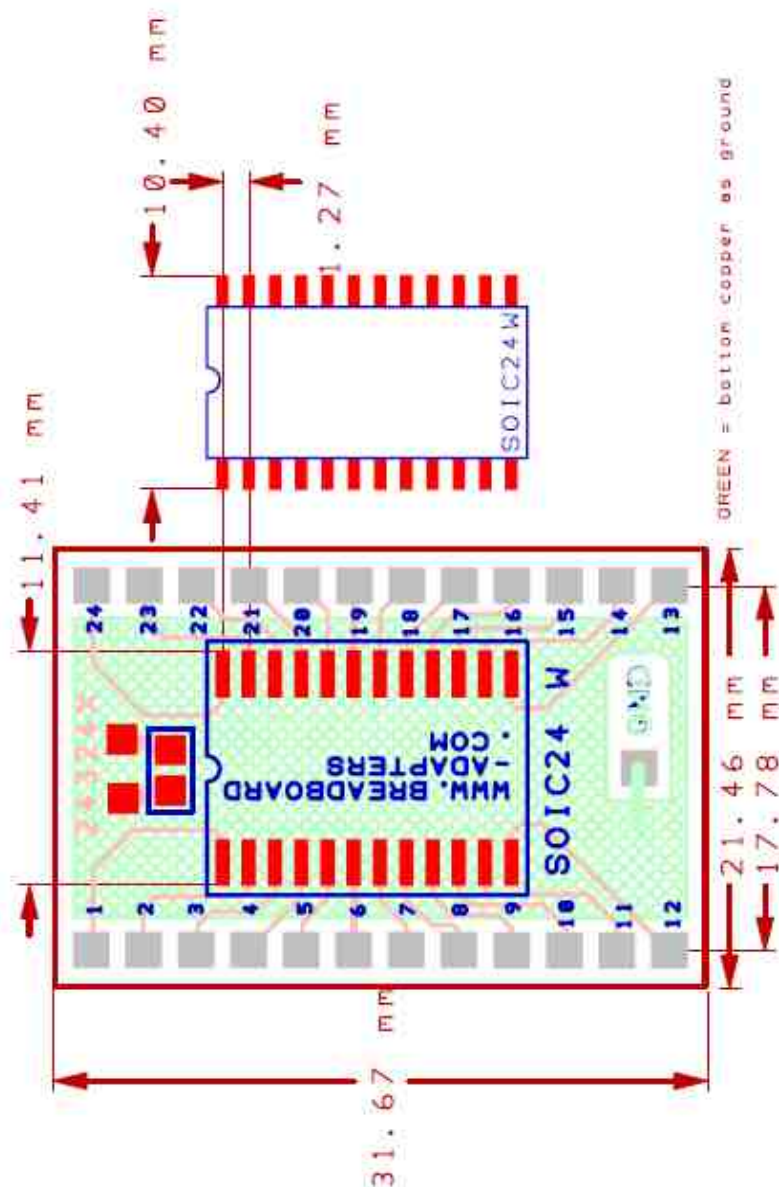
sales@breadboard-adapters.com

SOIC24 ADAPTER

Breadboard adapter for SOIC 24 pin wide devices:

PCB dimensions: 21,5 x 31,6 x 1,5 mm





Our reference: 24234X

Product description: Breadboard adapter for devices with SOIC24 package .

Accept row connectors with 2,54 mm pitch: is breadboard compatible. Accept one 0805 component, as decoupling capacitor, as example. Pitch (distance between center of pads)= 1,27 mm.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

Solder mask: Solder mask is open only around pads and vias and is used to minimize the risk of building solder bridges, between pads, when the SOIC is hand soldered.

PCB contour: the pcb contour is clean (individually milled).

Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOIC24 package:

<http://www.fairchildsemi.com/dwg/M2/M24B.pdf>

<http://www.national.com/packaging/mkt/m24b.pdf>

http://www.analog.com/static/imported-files/packages/33665150946139RW_24.pdf

http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

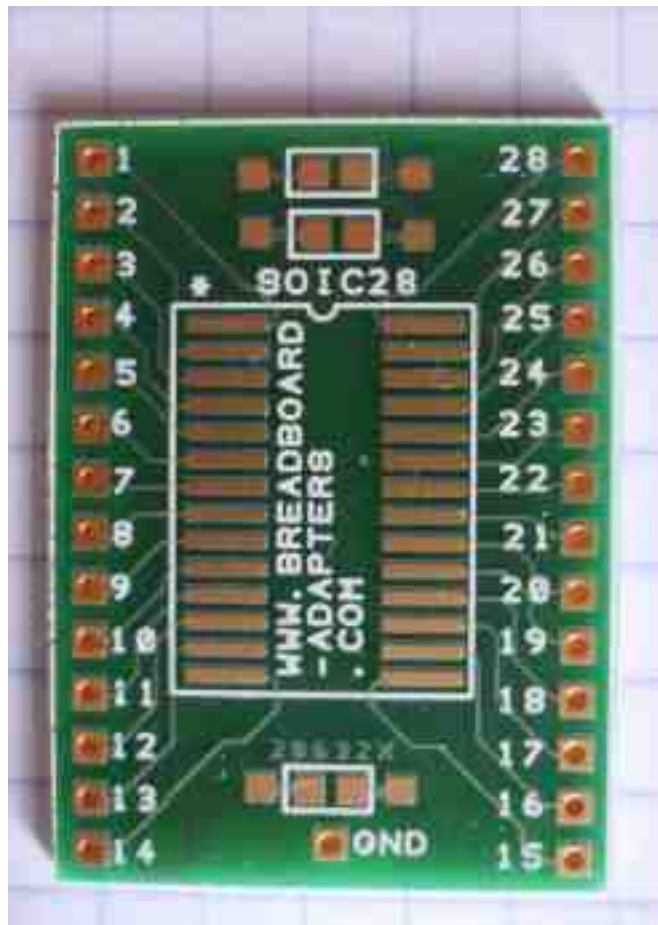
To any questions or feedback please email:

sales@breadboard-adapters.com

SOIC28 ADAPTER

Breadboard adapter for SOIC 28pin wide devices:

PCB dimensions: 26,6 x 36,7 x 1,5 mm



Our reference: 28632A

Product description: Breadboard adapter for devices with SOIC28 package .

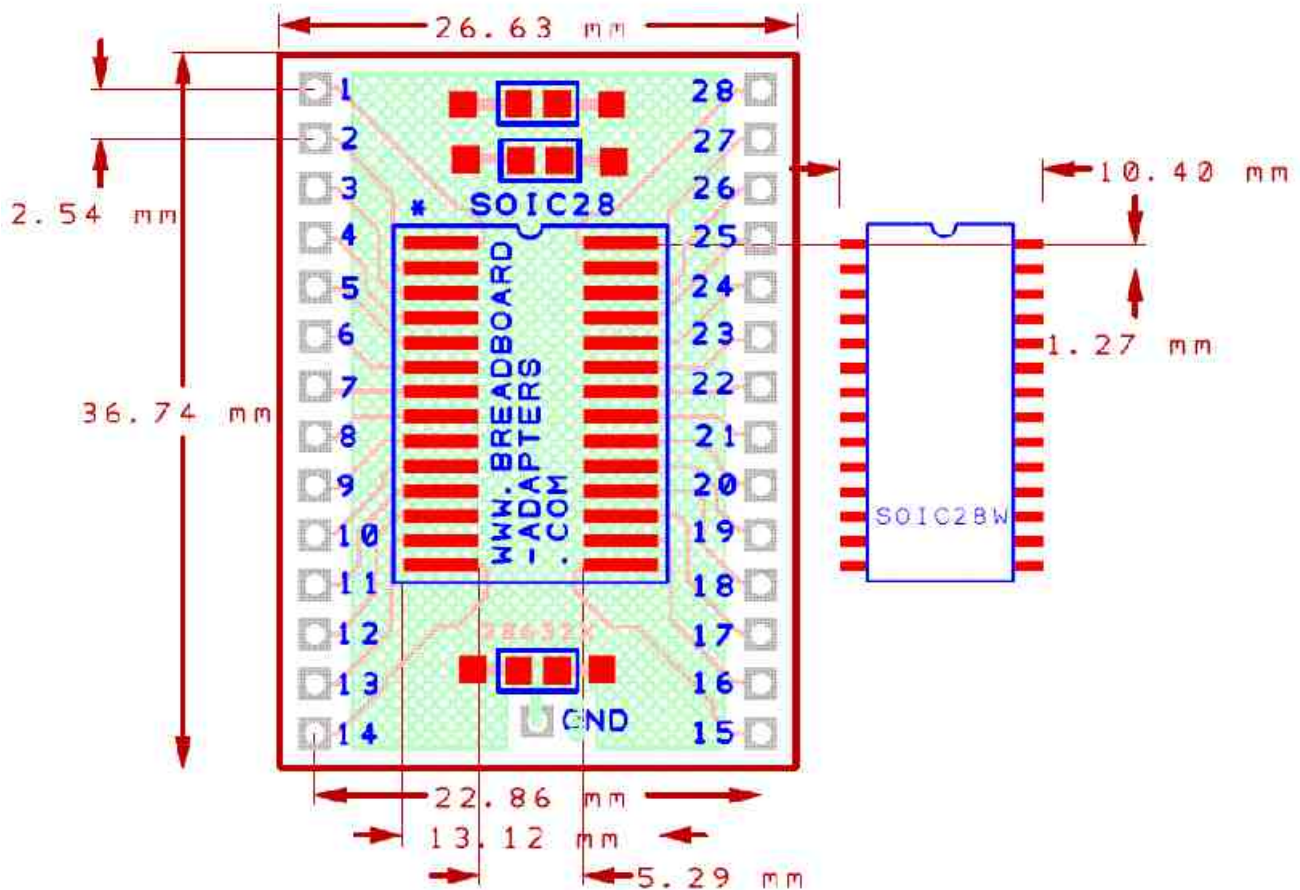
Accept row connectors with 2,54 mm pitch: is breadboard compatible. Accept 3 units of 0805 components, as decoupling capacitors, as example. Pitch (distance between center of pads)= 1,27 mm.

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

Solder mask: Solder mask is open only around pads and vias and is used to minimize the risk of building solder bridges, between pads, when the SOIC is hand soldered.

PCB contour: the pcb contour is clean (individually milled).



Hand soldering: should be used a liquid flux, for easy soldering to the gold surface.

Handling: is important before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for SOIC28 package:

- <http://www.fairchildsemi.com/dwg/M2/M28B.pdf>
- <http://www.national.com/packaging/mkt/m28b.pdf>
- http://www.analog.com/static/imported-files/packages/35833120341221RW_28.pdf
- http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

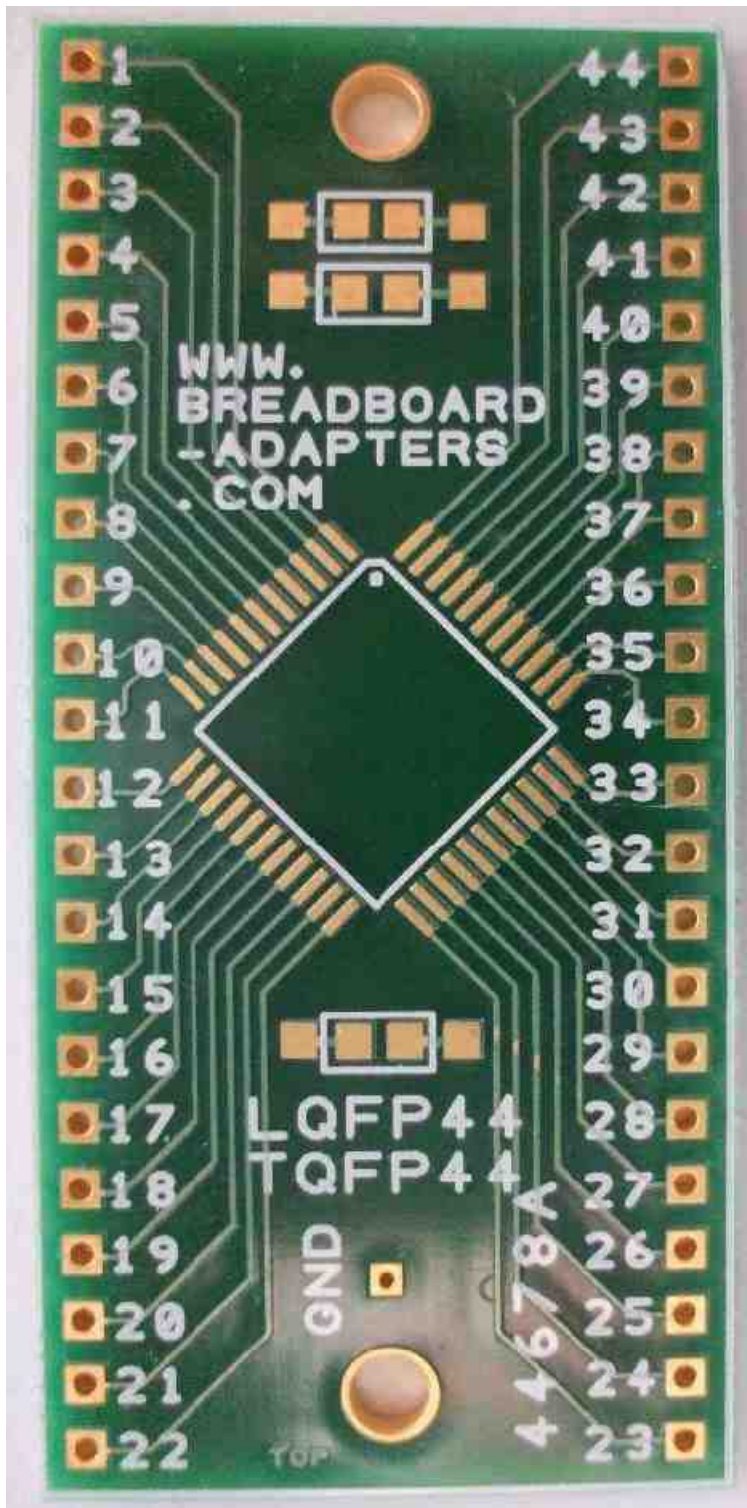
To any questions or feedback please email:

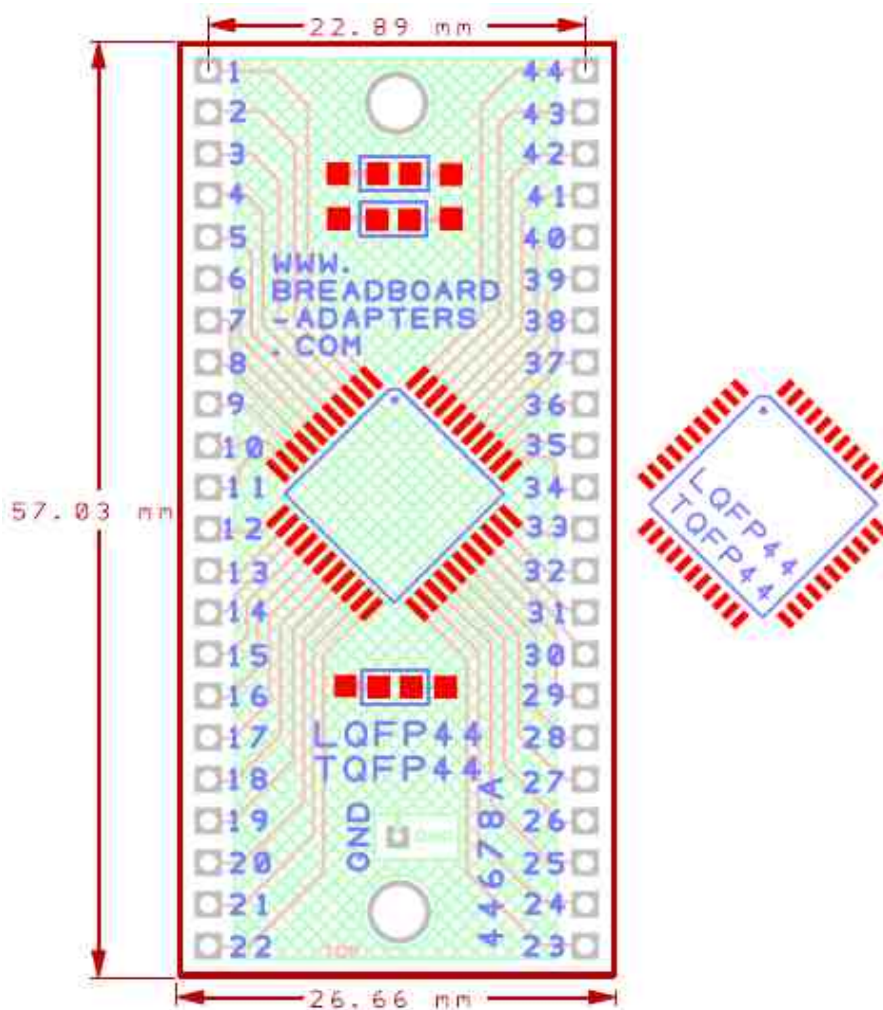
sales@breadboard-adapters.com

TQFP44 breadboard adapter

Breadboard adapter for TQFP44 10X10 mm devices:

PCB dimensions: 57 x 26,7 x 1,5 mm





Our reference: 44678A

Product description: Breadboard adapter for TQFP44 / LQFP44 (10 x 10 mm type) devices.

Accept row connectors with 2,54 mm pitch, and is breadboard compatible. Accept 3 units 0805 devices (decoupling capacitors as example)

Technology: Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.

The surface of pads in this adapter, is chemical gold plated.

PCB contour: The pcb contour is milled.

Ground connection: connected to the bottom layer.(green in the upper drawing)

Fixing holes: available with 3mm diameter

Hand soldering: should be used a liquid flux, for best soldering to the gold surface.

Handling: is important that before soldering, to avoid fingerprints over the gold plated surface of the pads.

Links for TQFP44 package:

http://www.analog.com/static/imported-files/packages/52366619645036ST_44_1.pdf

http://www.st.com/internet/com/TECHNICAL_RESOURCES/TECHNICAL_LITERATURE/PACKAGE_INFORMATION/CD00004855.pdf

<http://ics.nxp.com/packaging/handbook/pdf/pkgchapter5.pdf>

http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf

Please visit our site for updates and new types:

<http://www.breadboard-adapters.com/>

To any questions or feedback please email:

sales@breadboard-adapters.com