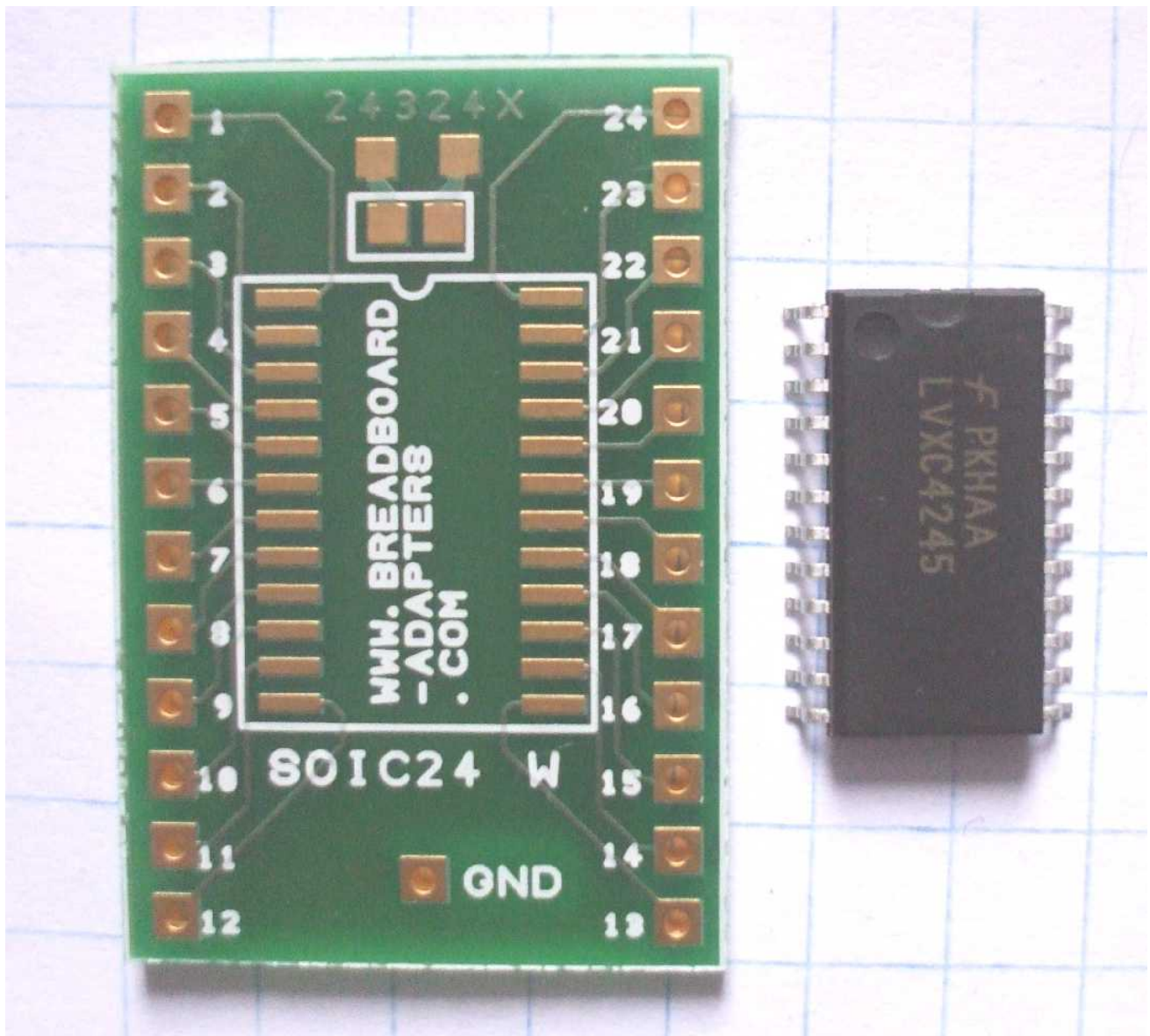


# BREADBOARD ADAPTERS

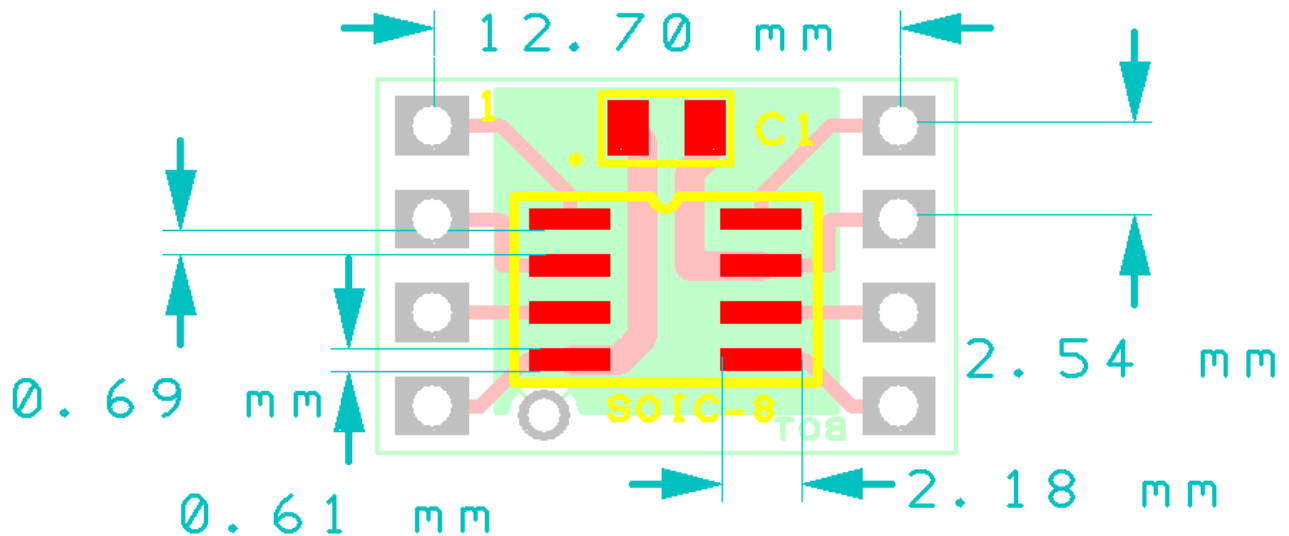
## SOIC PACKAGE



# SOIC8 ADAPTER

## Breadboard adapter for SOIC 8pin devices:

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



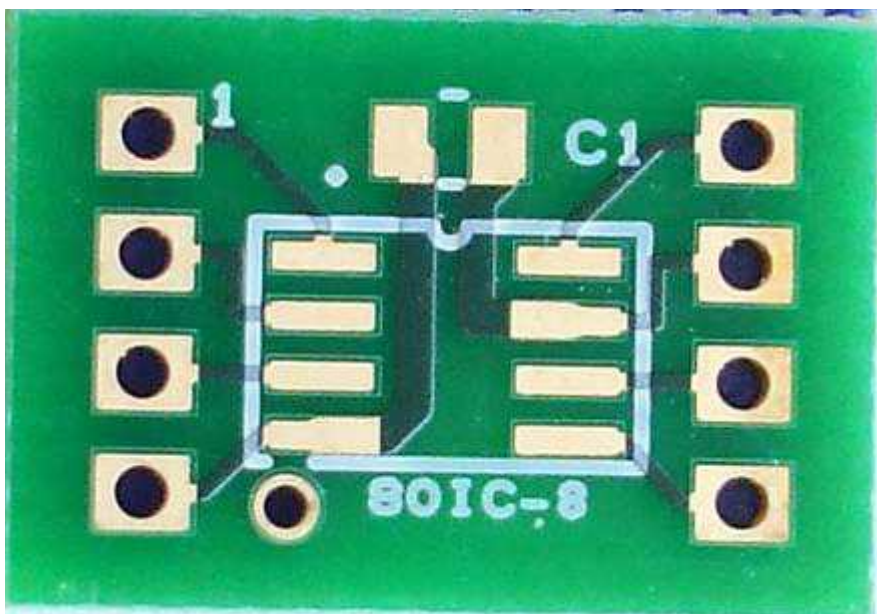
Accept row connectors with 2,54 mm pitch, breadboard compatible.  
Accept a 0805 decoupling capacitor C1 (pin 4 and 7), useful for some popular chips;  
The surface of pads in this adapter, is chemical gold plated. Use liquid flux, for easy soldering.

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.

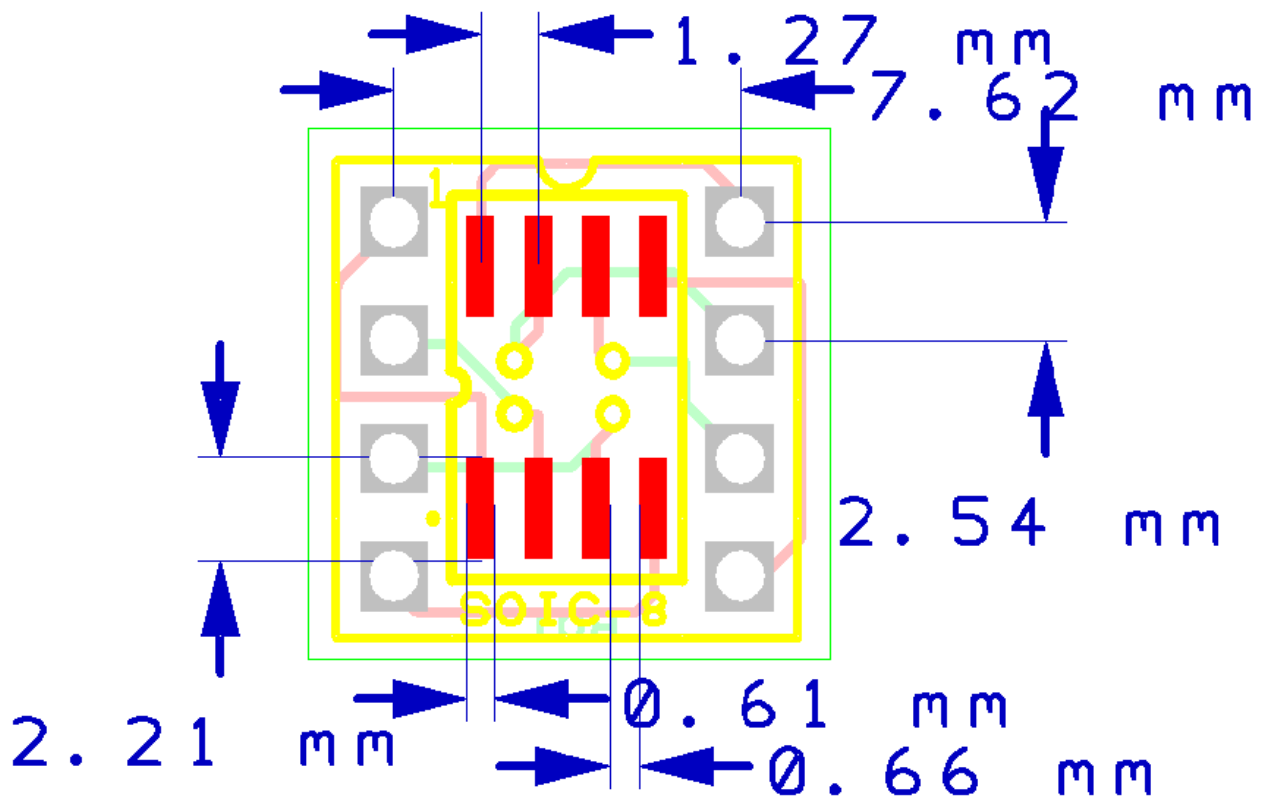
The PCB is scored.



# SOIC8 MINI ADAPTER

## Breadboard adapter for SOIC 8pin devices:

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



**Our reference:** 08753A

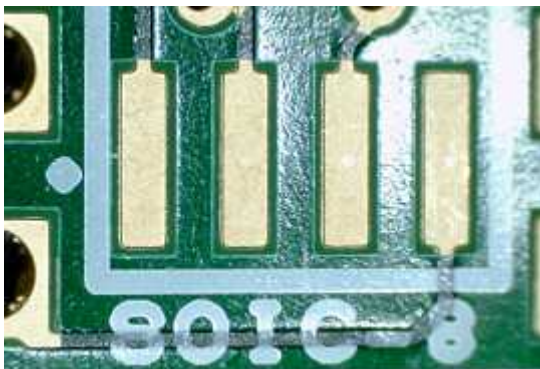
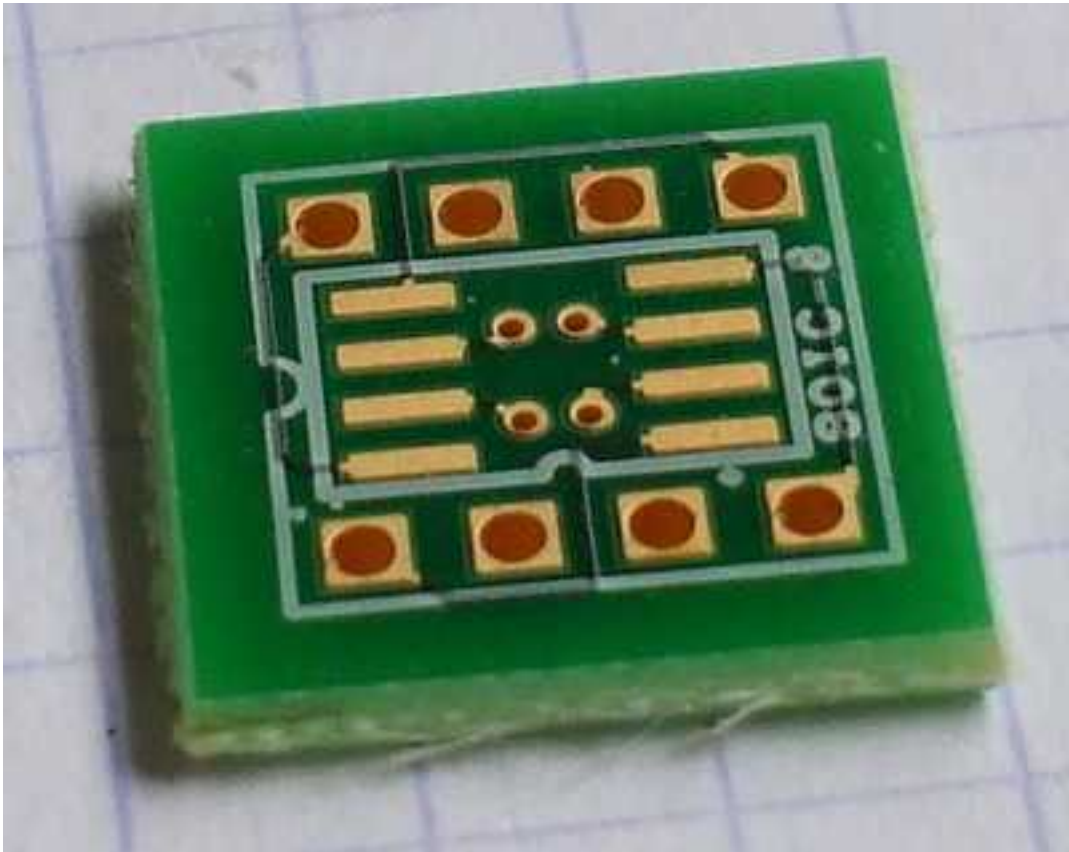
**Product description:** Breadboard adapter for SOIC8 devices , for example for operational amplifiers, data conversion, power management, digital pots and others.  
Accept row connectors with 2,54 mm pitch, breadboard compatible.

**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](http://www.freescale.com/files/analog/doc/app_note/AN2409.pdf)

Please visit our site for updates and new types:

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

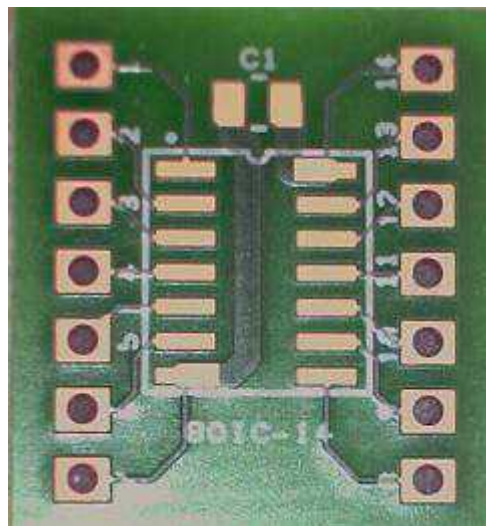
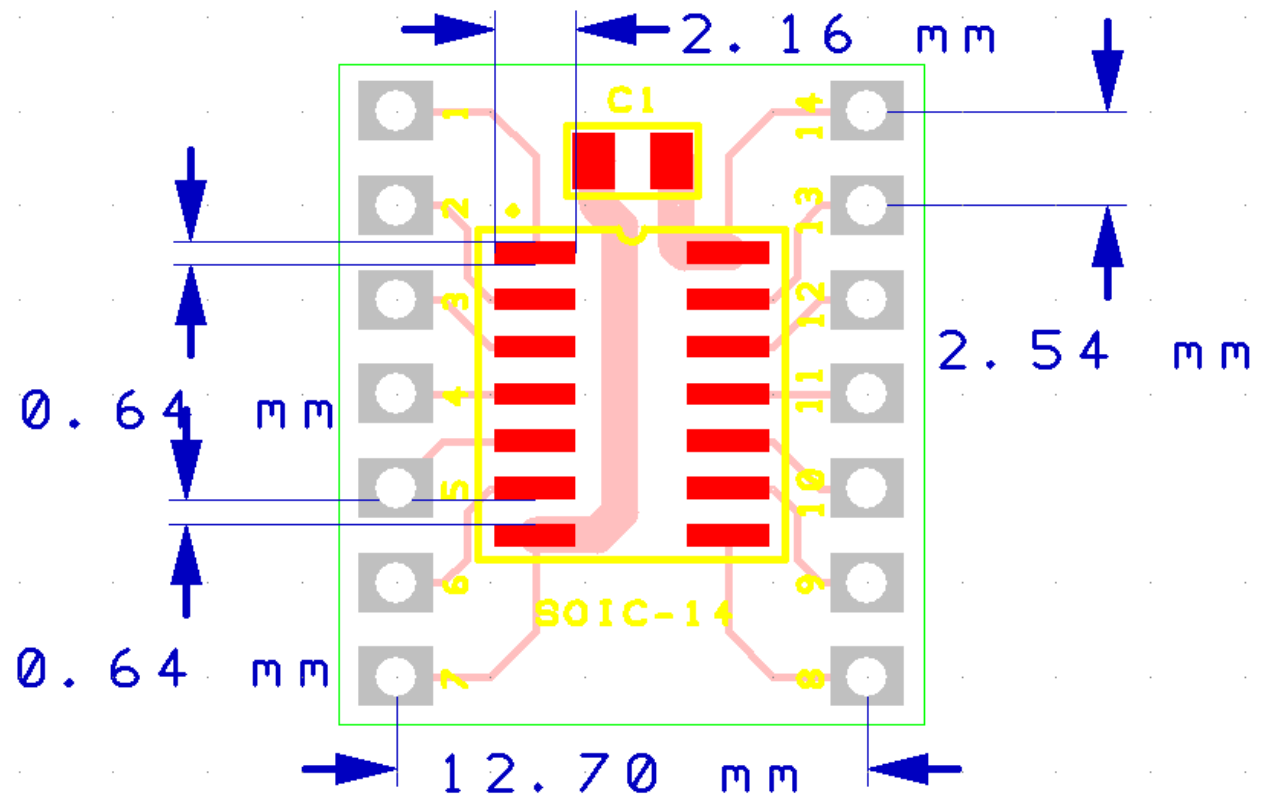
To any questions or feedback please email:

[sales@breadboard-adapters.com](mailto:sales@breadboard-adapters.com)

# 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.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/>

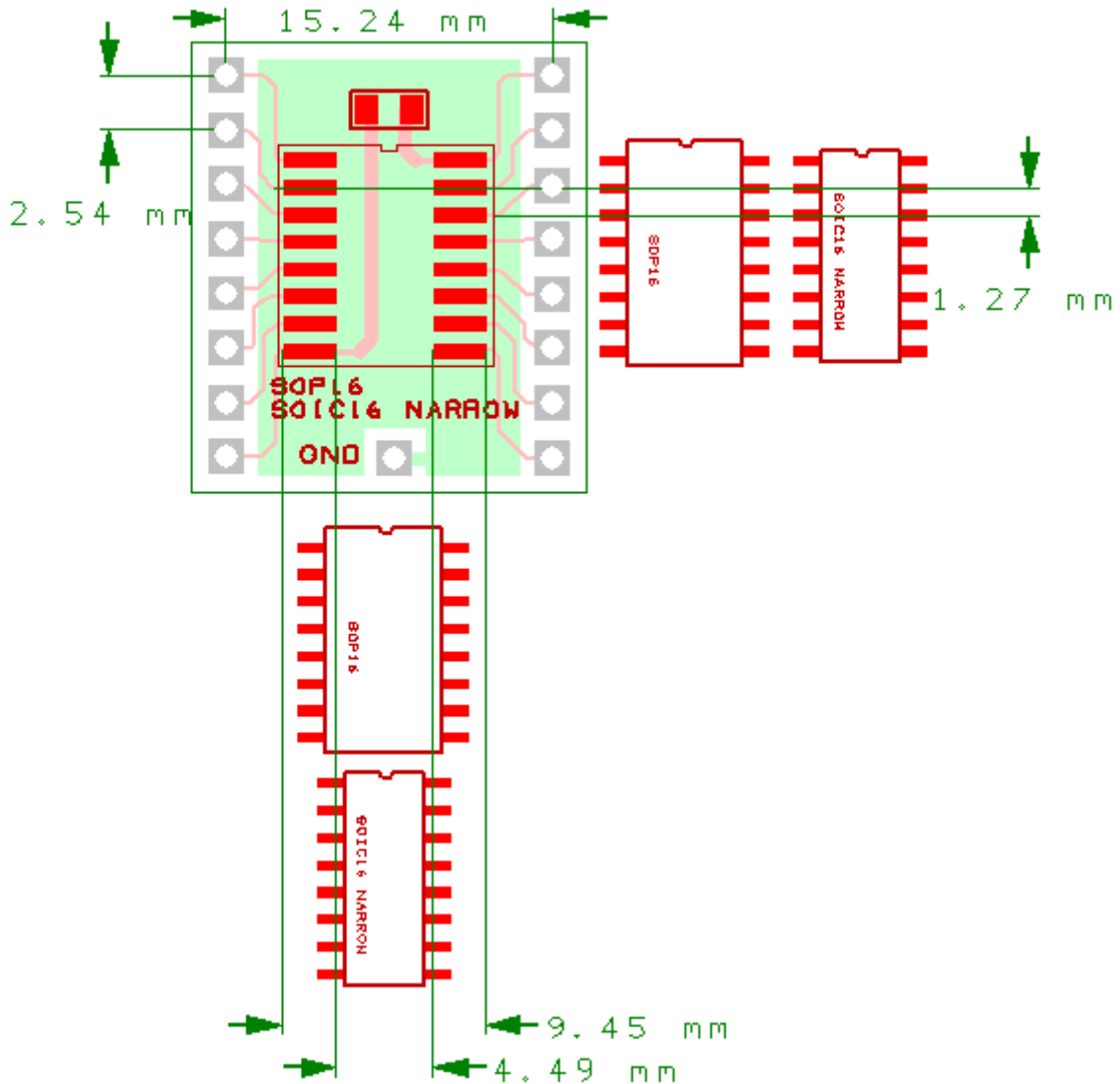
To any questions or feedback please email:

[sales@breadboard-adapters.com](mailto:sales@breadboard-adapters.com)

# SOIC16N / SOP16 ADAPTER

**Breadboard adapter for SOIC 16pin (only narrow devices) or SOP16 (only devices with a pitch of 1,27 mm)**

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



**Our reference: 16431A**

**Product description:** Breadboard adapter for SOP16 ( only for pitch of 1,27 mm types ) or SOIC16N narrow 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.

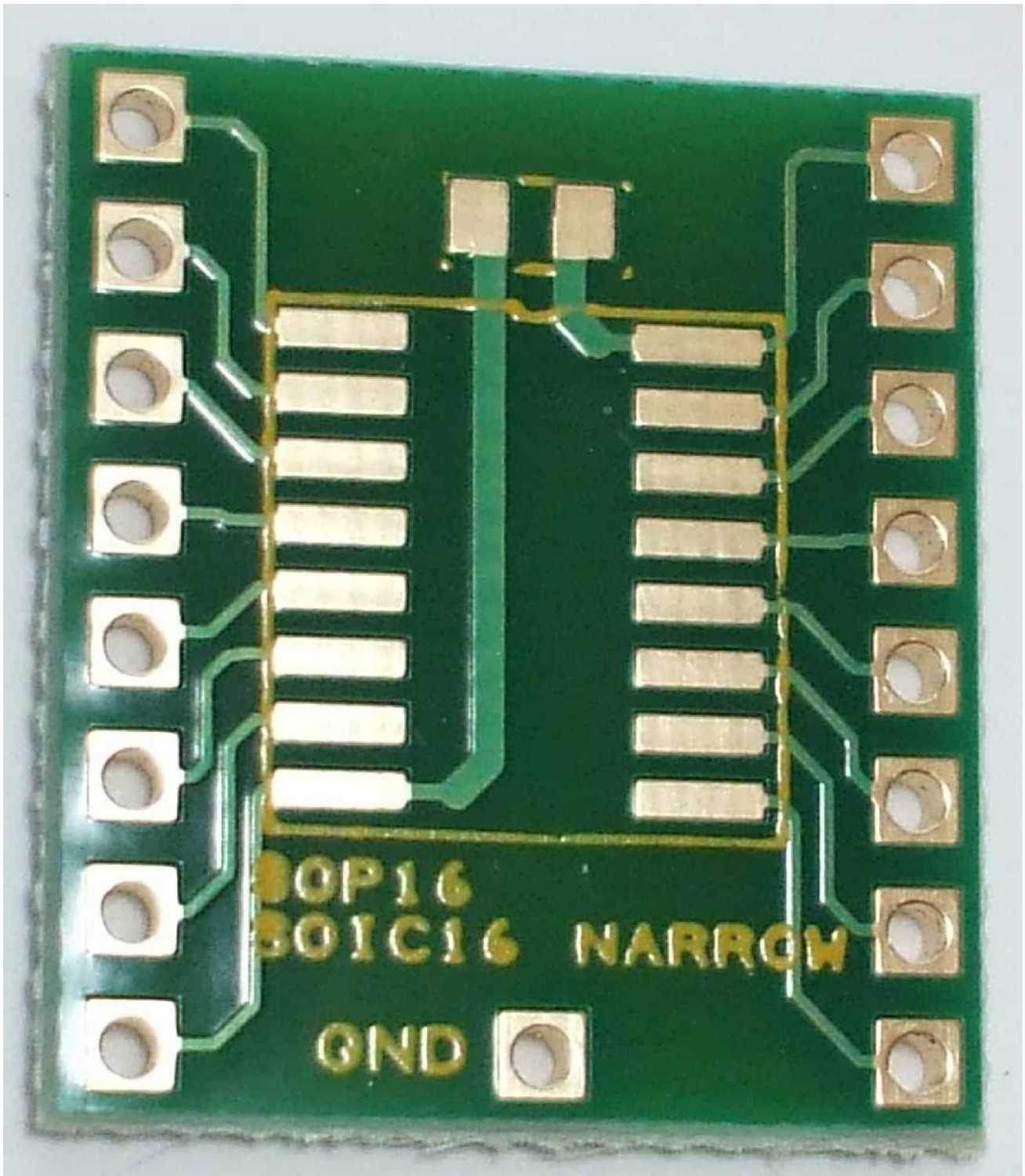
**Ground plane:** one ground plane connection is available, useful also as a small heatsink.

**PCB contour:** the pcb contour is scored and easy to break in pieces, if several units are supplied.

**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 1 adapter for SOP16 / SOIC16N ( narrow) in a scored pcb.  
Can be observed the 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, when the SOIC is hand soldered.  
Can be seen also the plated through holes.

## Links:

### SOP16

[http://www.fairchildsemi.com/products/analog/pdf/16sop225\\_dim.pdf](http://www.fairchildsemi.com/products/analog/pdf/16sop225_dim.pdf)  
<http://www.fairchildsemi.com/dwg/M1/M16D.pdf>  
[http://www.rohm.com/products/databook/pack/pdf/sop16\\_01-e.pdf](http://www.rohm.com/products/databook/pack/pdf/sop16_01-e.pdf)  
<http://www.semicon.toshiba.co.jp/eng/product/logic/package/sop16.html>  
<http://www.vishay.com/docs/83687/sfh6916.pdf>  
[http://www.panasonic-electric-works.com/catalogues/downloads/photomos/ds\\_x615\\_en\\_aqs221n2s.pdf](http://www.panasonic-electric-works.com/catalogues/downloads/photomos/ds_x615_en_aqs221n2s.pdf)

### SOIC16N

<http://www.fairchildsemi.com/dwg/M1/M16A.pdf>  
[http://www.analog.com/static/imported-files/footprints/SOIC\\_N \(R\)/r-16.pdf](http://www.analog.com/static/imported-files/footprints/SOIC_N (R)/r-16.pdf)  
[http://pdfserv.maxim-ic.com/land\\_patterns/90-0097.PDF](http://pdfserv.maxim-ic.com/land_patterns/90-0097.PDF)  
<http://www.irf.com/package/cic/16leadsoicnarrow.pdf>

Please visit our site for updates and new adapter types:

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

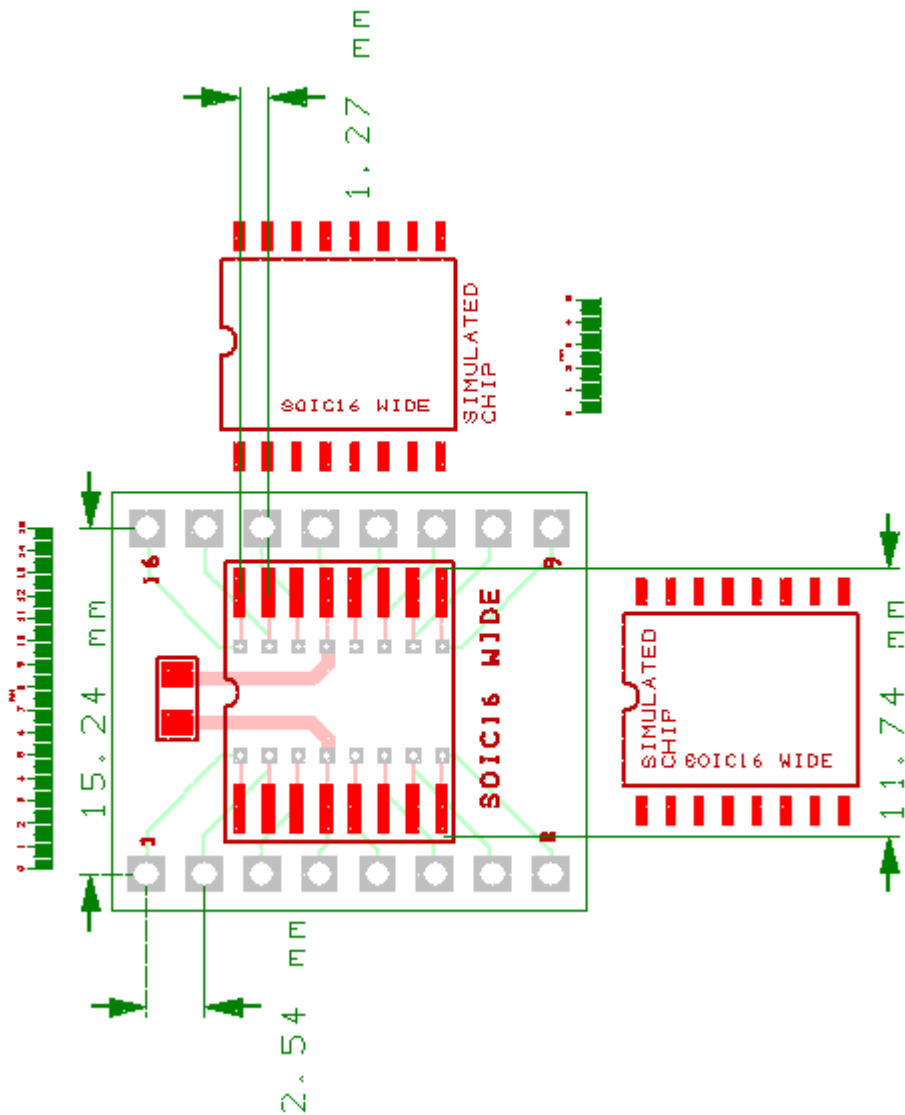
To any questions or feedback please email:

[sales@breadboard-adapters.com](mailto: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**

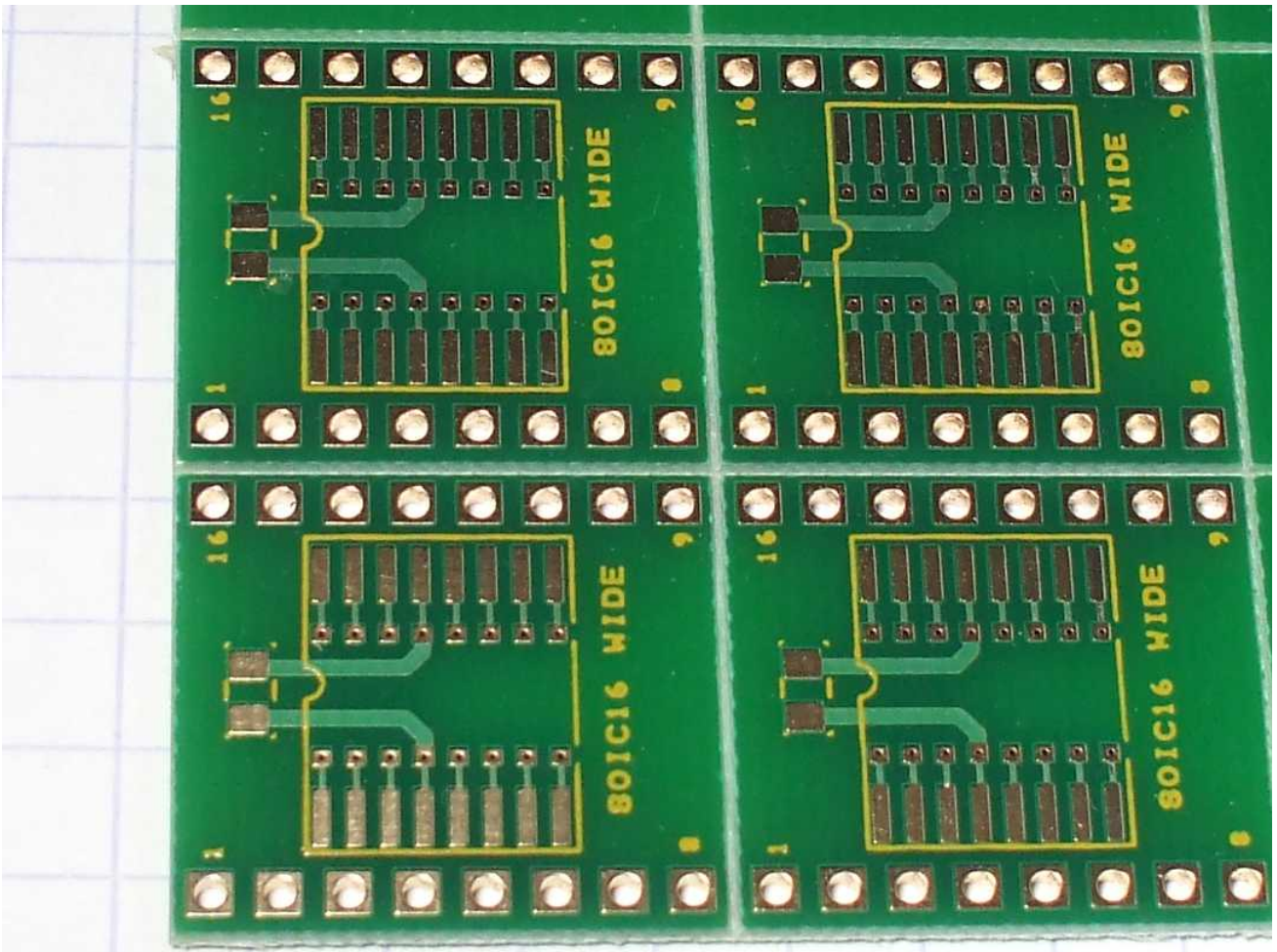
**Product description:** Breadboard adapter for SOIC16 wide devices. Accept row connectors with 2,54 mm pitch: is breadboard compatible.

**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.

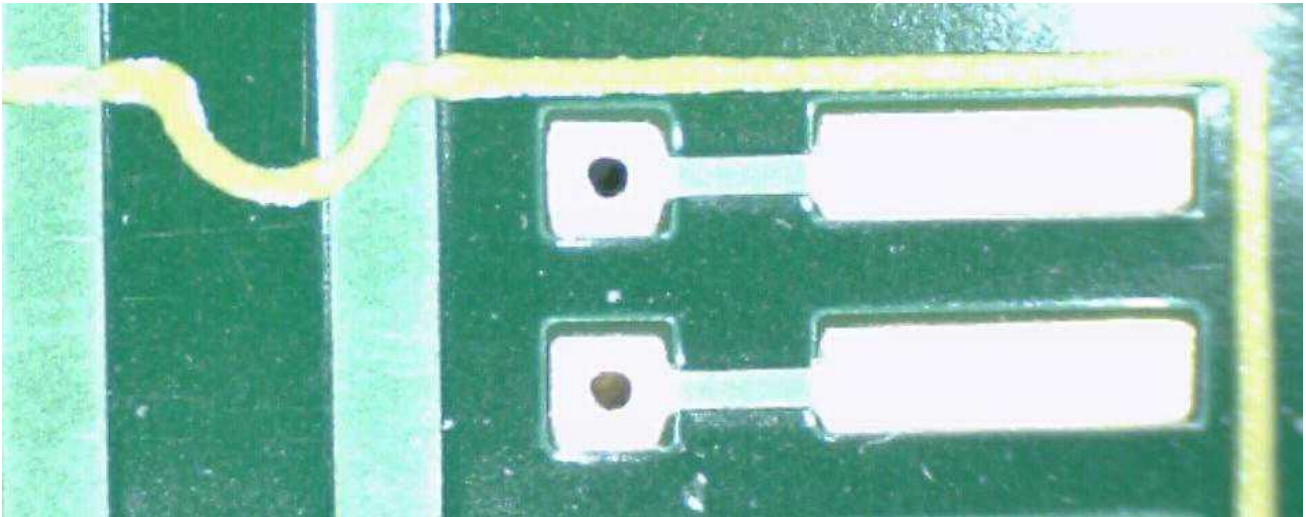
**PCB contour:** the pcb contour is scored easy to break.

**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.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://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>

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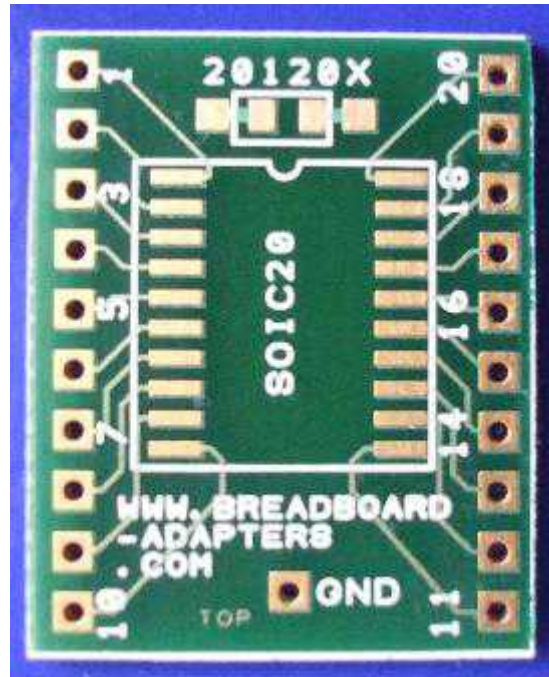
To any questions or feedback please email:

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# SOIC20 ADAPTER

**Breadboard adapter for SOIC 20 pin devices:**

**PCB dimensions:** 21,5 x 26,5 x 1,5 mm



**Our reference:** 20120X

**Product description:** Breadboard adapter for SOIC20 devices , for example for operational amplifiers, data conversion, power management, digital pots and others.  
Accept row connectors with 2,54 mm pitch, breadboard compatible.

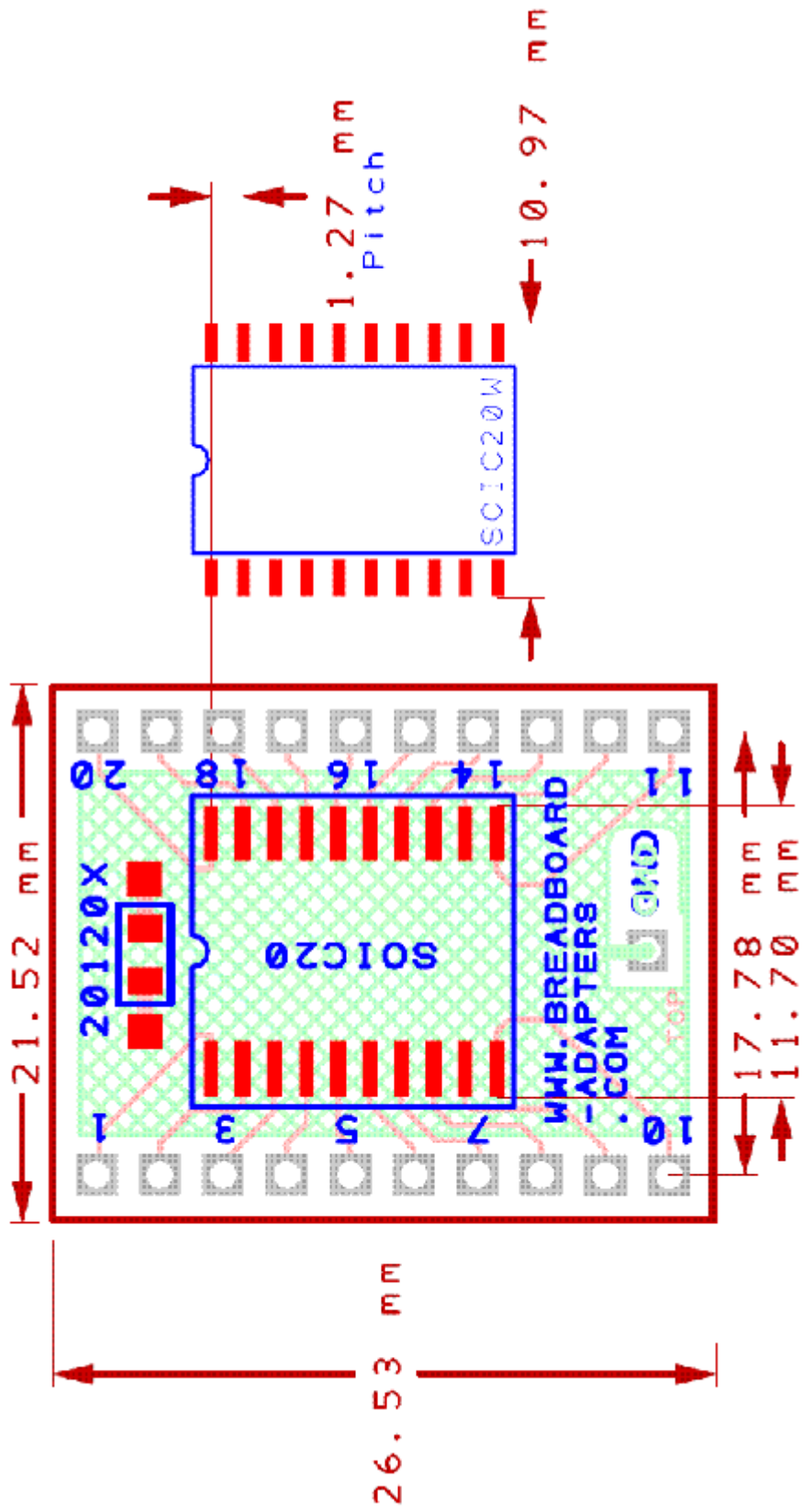
**Technology:** Plated through FR4 pcb, with solder mask to avoid shorts between pads when hand soldered, as shown in photo. All holes are plated through.  
The surface of pads in this adapter, is chemical gold plated.

**PCB contour:** The pcb contour is milled.

**Ground connection:** connected to the bottom layer.

**Hand soldering:** should be used 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 SOIC 20 pin:

<http://www.fairchildsemi.com/dwg/M2/M20B.pdf>  
[http://www.fairchildsemi.com/products/analog/pdf/soic20\\_dim.pdf](http://www.fairchildsemi.com/products/analog/pdf/soic20_dim.pdf)  
<http://www.intersil.com/data/pk/M20.3.pdf>  
[http://www.freescale.com/files/analog/doc/app\\_note/AN2409.pdf](http://www.freescale.com/files/analog/doc/app_note/AN2409.pdf)  
[http://pdfserv.maxim-ic.com/package\\_dwgs/21-0042.PDF](http://pdfserv.maxim-ic.com/package_dwgs/21-0042.PDF)  
<http://ics.nxp.com/packaging/package.outlines/pdf/sot163-1.pdf>  
[http://www.analog.com/static/imported-files/packages/233848RW\\_20.pdf](http://www.analog.com/static/imported-files/packages/233848RW_20.pdf)  
<http://www.bcdsemi.com/Packaging/jcPdf2/SOIC-20.pdf>

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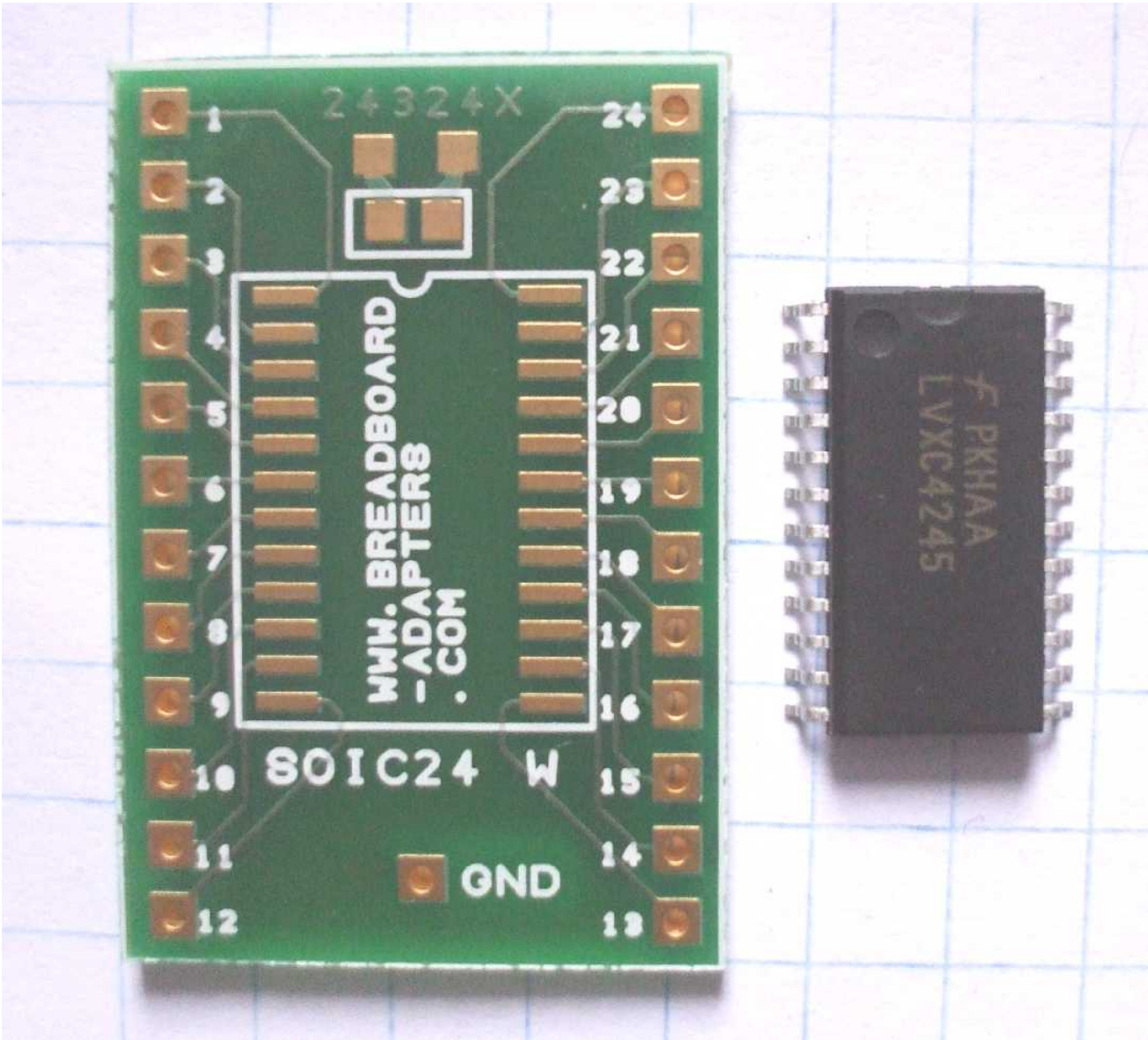
[sales@breadboard-adapters.com](mailto:sales@breadboard-adapters.com)

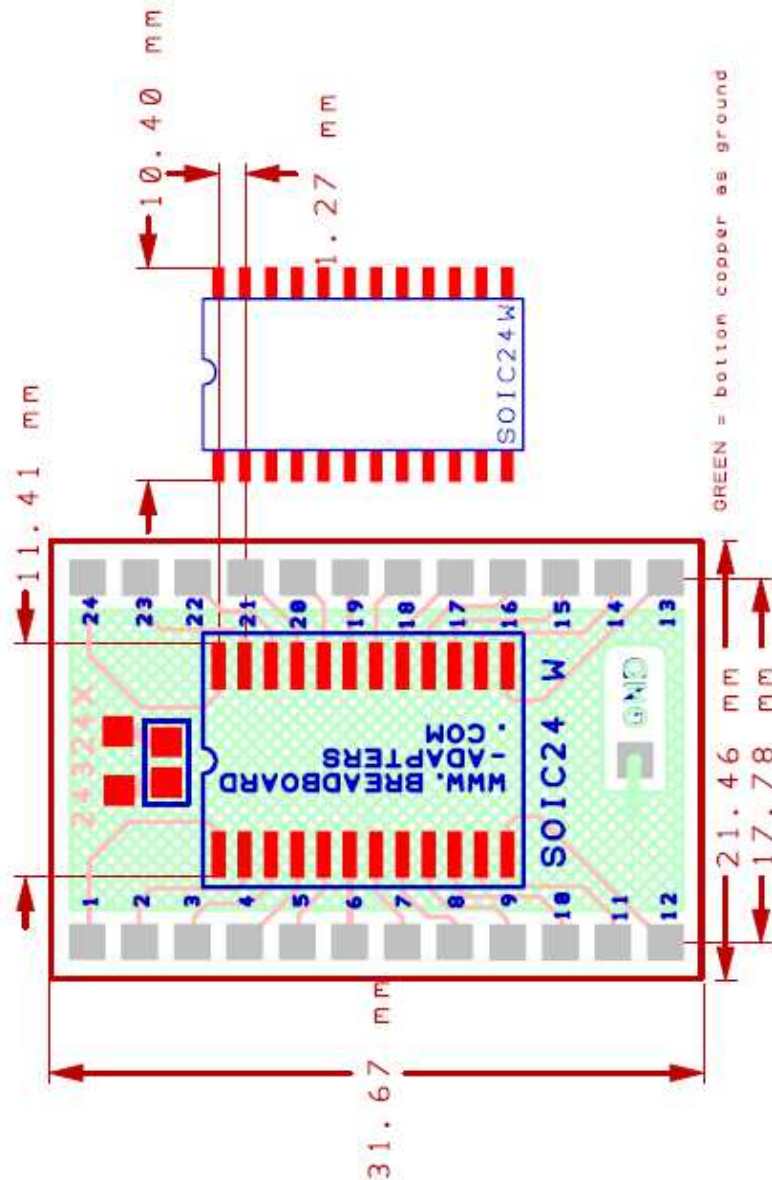


# SOIC24 ADAPTER

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.analog.com/static/imported-files/packages/33665150946139RW_24.pdf)

[http://www.microchip.com/stellent/groups/techpub\\_sg/documents/packagingspec/en012702.pdf](http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf)

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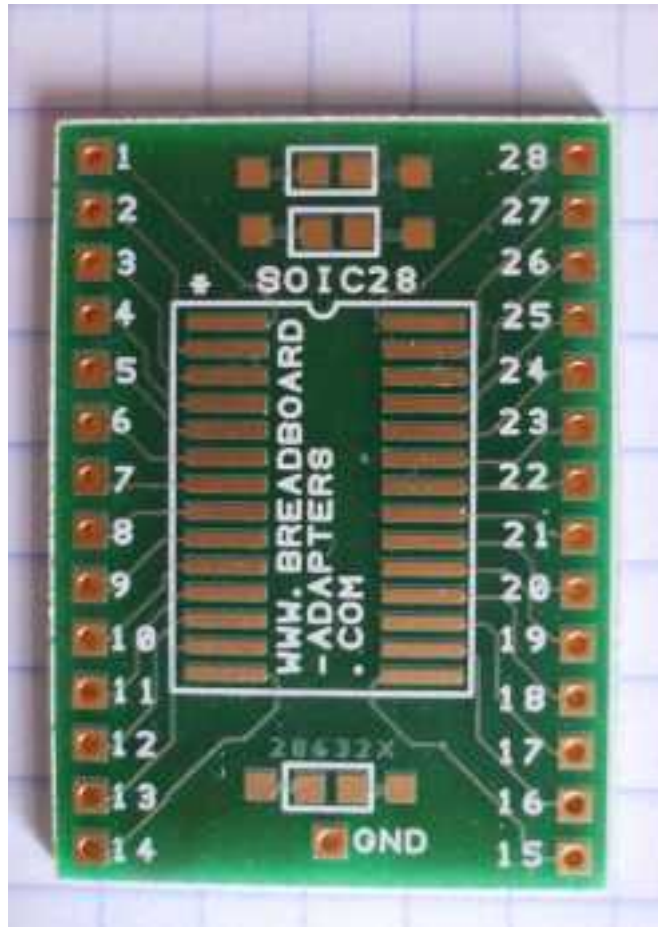
To any questions or feedback please email:

[sales@breadboard-adapters.com](mailto: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 .

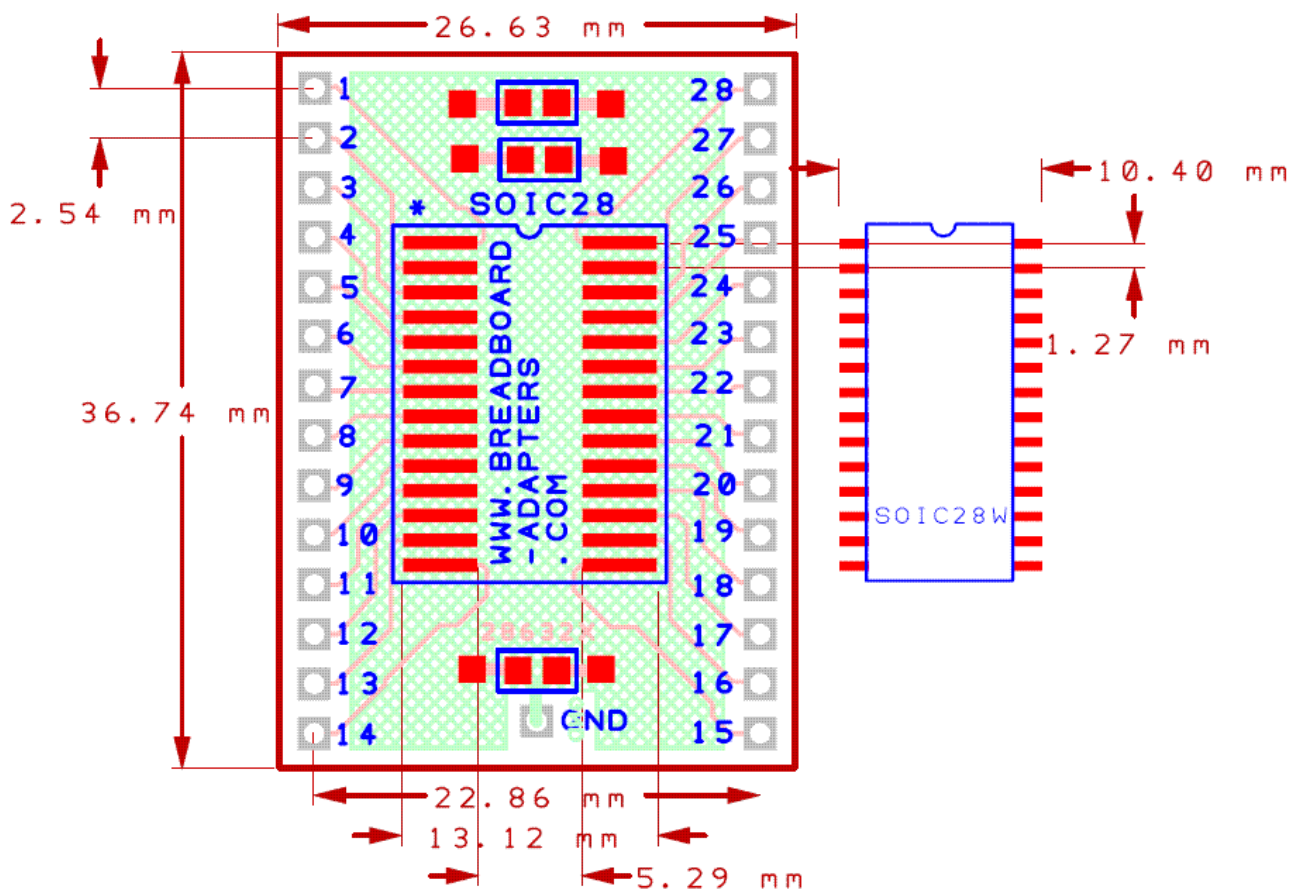
Accept row connectors with 2,54 mm pitch: is breadboard compatible. Accept 3 units of 0805 components, as decoupling capacitors, as example. Pitch ( distance between center of pads)= 1,27 mm.

**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.analog.com/static/imported-files/packages/35833120341221RW_28.pdf)
- [http://www.microchip.com/stellent/groups/techpub\\_sg/documents/packagingspec/en012702.pdf](http://www.microchip.com/stellent/groups/techpub_sg/documents/packagingspec/en012702.pdf)

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