

IC149 Series (SMT)

QFP/TQFP - 112 Pins (28x28) 0.65mm pitch

Specifications

Insulation Resistance:	500MΩ at 150V DC
Withstanding Voltage:	100V _{eff} to 700V _{eff} for 1 minute
Contact Resistance:	30mΩ max. at 10mA and 20mV
Operating Temp. Range:	-25°C to +85°C
Reflow-soldering Temp.:	220°C for 60 seconds
Mating Cycles:	20 insertions maximum
Solvent Durability:	Freon
Allowable Torque (max.):	- for 1-time screw connection = max 0.147 Nm - for repetitive screw connection = min 0.078 Nm max 0.098 Nm

Materials and Finish

Housing: Polyphenylenesulfide (PPS) glass filled UL94V-0
 Contact: Beryllium Copper (BeCu)
 Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni = B5



Part Number (Details)

IC149 - 112 - *42 - B5

Series No.

No. of Contact Pins

Positioning Pins:

0 = Without Pins

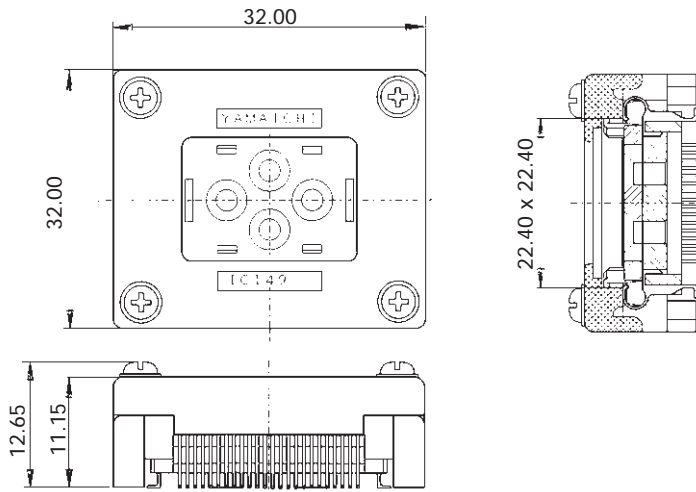
1 = With Pins

Contact Plating:

B5 = Au over Ni

Compatible Emulation-Adapter ICP-112-2

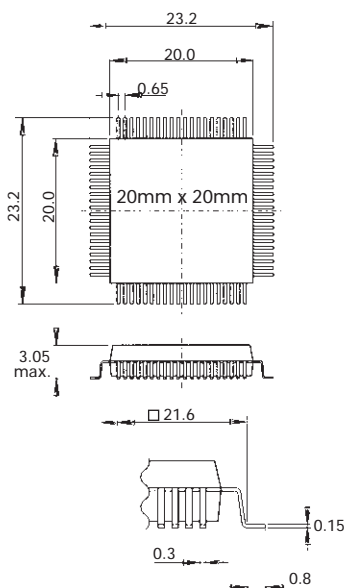
Outline Socket Dimensions (Reference Only)



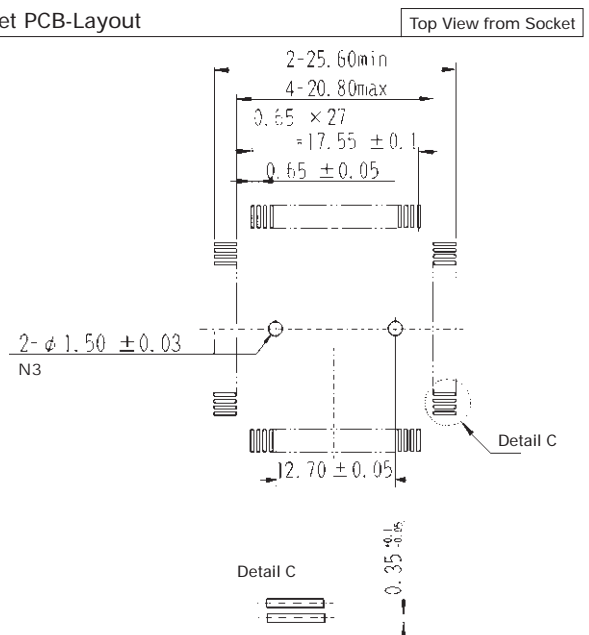
Remarks

1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. This Socket is not for automatic production. It is particularly suitable for the development of software stored in ROM and for testing LSI-IC's.
3. Careful attention must be taken when fixing the Socket, since it is entirely made from thermoplastic material. If the max. torque is exceeded, the Socket will be damaged beyond repair.
4. If using the Socket with an Adapter, please use the gold-plated Socket version.

IC - Dimensions



Socket PCB-Layout



Notes

N3: These holes are only necessary for use with positioning pins.

IC149 / ICP Series

Emulation-Adapter (112 pins)

Specifications

Insulation Resistance:	500MΩ at 150V DC	
Withstanding Voltage:	700V AC for 1 minute	
Contact Resistance:	30mΩ max. at 10mA and 20mV	
Operating Temp. Range:	-25°C to +85°C	
Reflow-soldering Temp.:	220°C for 60 seconds	
Mating Cycles:	20 insertions maximum	
Allowable Torque (max.):	- for 1-time screw connection	= max 0.147 Nm
	- for repetitive screw connection	= min 0.078 Nm max 0.098 Nm

Adapter Part Number

ICP-112-2

Compatible Socket (Part No.)

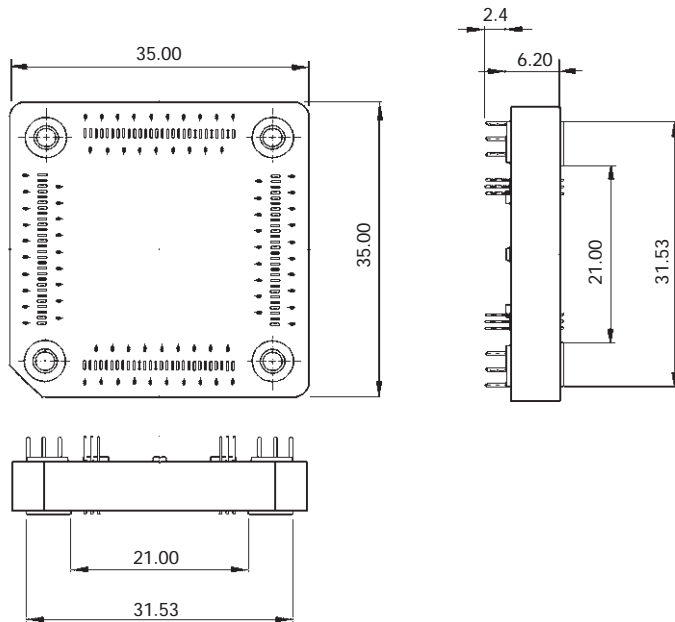
- IC149-112-042-B5 (w/o pos. pins)
- IC149-112-142-B5 (with pos. pins)

Materials and Finish

Housing: PTES, glass filled UL94V-0
 Contact: Phosphor Bronze
 Plating: Au 0.3µm min. over 2.5 ~ 4.5µm Ni



Outline Adapter Dimensions (Reference Only)

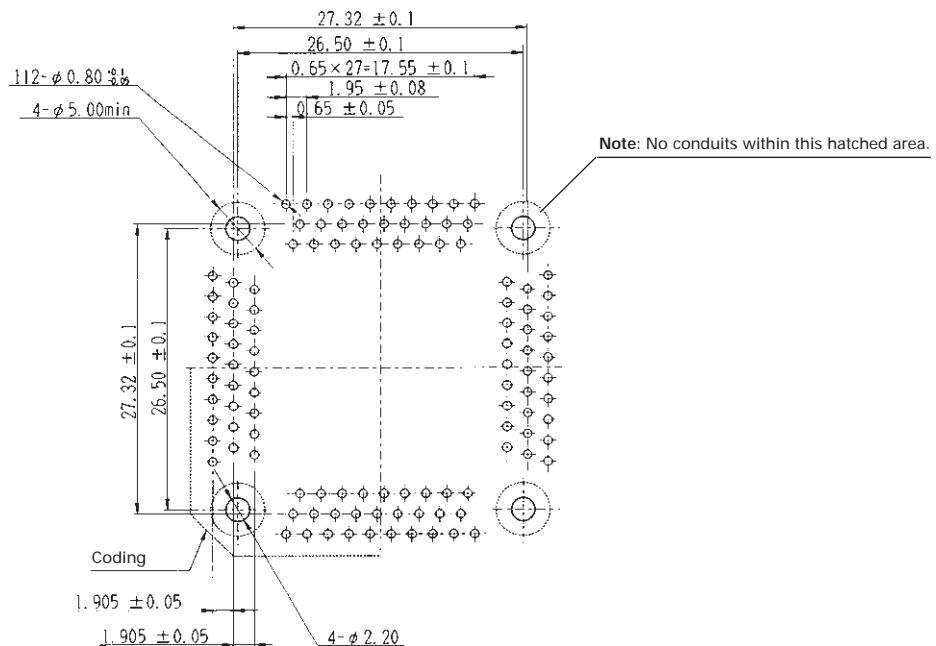


Remarks

1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. Careful attention must be taken when fixing the Adapter, since it is made from thermoplastic material. By exceeding the maximum torque a perfect performance can no longer be guaranteed.

Adapter PCB-Layout (IC149-112-*42-B5)

Top View from Soldering Side



IC149 Series (SMT)

QFP/TQFP - 120 Pins (30x30) 0.4mm pitch

Specifications

Insulation Resistance:	500MΩ at 150V DC
Withstanding Voltage:	100V _{eff} to 700V _{eff} for 1 minute
Contact Resistance:	30mΩ max. at 10mA and 20mV
Operating Temp. Range:	-25°C to +85°C
Reflow-soldering Temp.:	220°C for 60 seconds
Mating Cycles:	20 insertions maximum
Solvent Durability:	Freon
Allowable Torque (max.):	- for 1-time screw connection = max 0.147 Nm - for repetitive screw connection = min 0.078 Nm max 0.098 Nm

Materials and Finish

Housing: Polyphenylenesulfide (PPS) glass filled UL94V-0
 Contact: Beryllium Copper (BeCu)
 Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni = B5



Part Number (Details)

IC149 - 120 - *43 - B5

Series No.

No. of Contact Pins

Positioning Pins:

0 = Without Pins

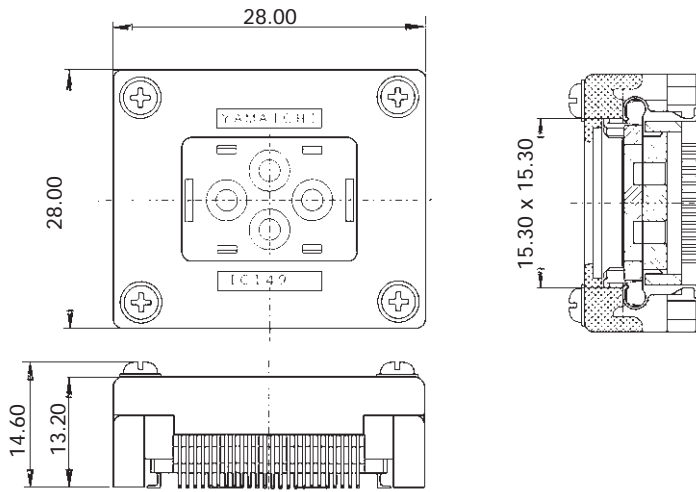
1 = With Pins

Contact Plating:

B5= Au over Ni

Compatible Emulation-Adapter ICP-120-2

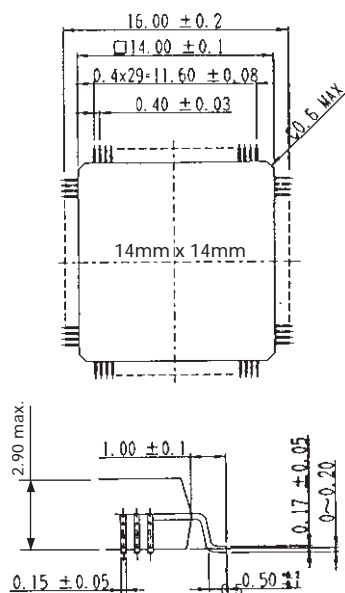
Outline Socket Dimensions (Reference Only)



Remarks

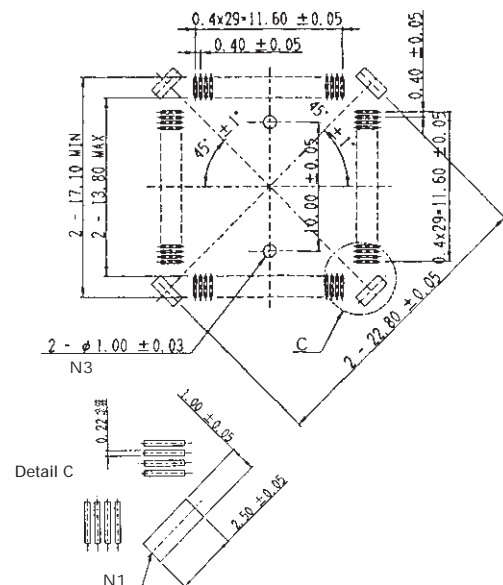
1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. This Socket is not for automatic production. It is particularly suitable for the development of software stored in ROM and for testing LSI-IC's.
3. Careful attention must be taken when fixing the Socket, since it is entirely made from thermoplastic material. If the max. torque is exceeded, the Socket will be damaged beyond repair.
4. If using the Socket with an Adapter, please use the gold-plated Socket version.

IC - Dimensions



Socket PCB-Layout

Top View from Socket



Notes

- N1: Metal soldering Tab Clip. Socket may be stabilized by soldering (Reflow) in these 4 areas.
 N3: These holes are only necessary for use with positioning pins.

IC149 / ICP Series

Emulation-Adapter (120 pins)

Specifications

Insulation Resistance: 500MΩ at 150V DC
 Withstanding Voltage: 700V AC for 1 minute
 Contact Resistance: 30mΩ max. at 10mA and 20mV
 Operating Temp. Range: -25°C to +85°C
 Reflow-soldering Temp.: 220°C for 60 seconds
 Mating Cycles: 20 insertions maximum
 Allowable Torque (max.): - for 1-time screw connection = max 0.147 Nm
 - for repetitive screw connection = min 0.078 Nm
 max 0.098 Nm

Adapter Part Number

ICP-120-2

Compatible Socket (Part No.)

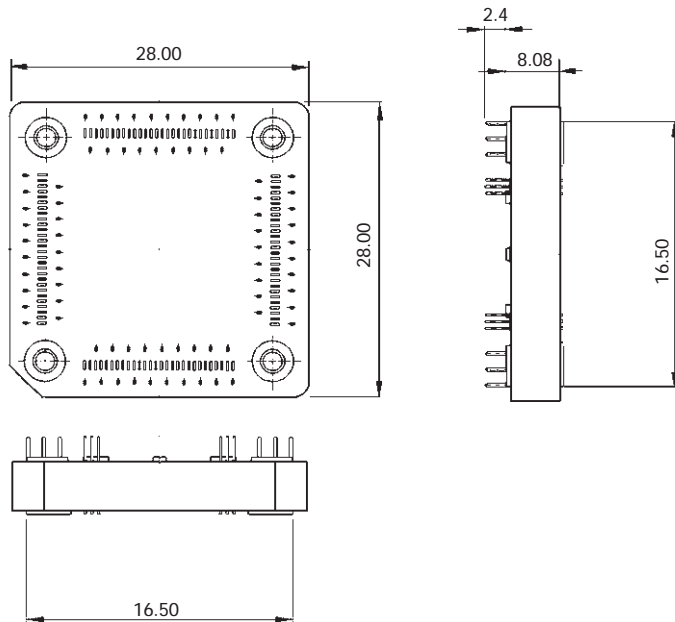
IC149-120-043-B5 (w/o pos. pins)
 IC149-120-143-B5 (with pos. pins)

Materials and Finish

Housing: PTES, glass filled UL94V-0
 Contact: Phosphor Bronze
 Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni



Outline Adapter Dimensions (Reference Only)

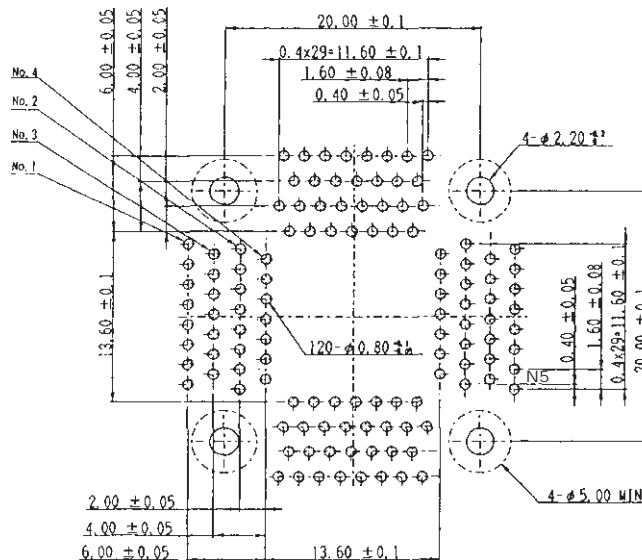


Remarks

1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. Careful attention must be taken when fixing the Adapter, since it is made from thermoplastic material. By exceeding the maximum torque a perfect performance can no longer be guaranteed.

Adapter PCB-Layout (IC149-120-*43-B5)

Top View from Soldering Side



Note: No conduits within this hatched area.

IC149 Series (SMT)

QFP/TQFP - 128 Pins (28x28) 0.8mm pitch

Specifications

Insulation Resistance:	500MΩ at 150V DC
Withstanding Voltage:	100V _{eff} to 700V _{eff} for 1 minute
Contact Resistance:	30mΩ max. at 10mA and 20mV
Operating Temp. Range:	-25°C to +85°C
Reflow-soldering Temp.:	220°C for 60 seconds
Mating Cycles:	20 insertions maximum
Solvent Durability:	Freon
Allowable Torque (max.):	- for 1-time screw connection = max 0.147 Nm - for repetitive screw connection = min 0.078 Nm max 0.098 Nm

Materials and Finish

Housing: Polyphenylenesulfide (PPS) glass filled UL94V-0
 Contact: Beryllium Copper (BeCu)
 Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni = B5



Part Number (Details)

IC149 - 128 - *80 - B5

Series No.

No. of Contact Pins

Positioning Pins:

0 = Without Pins

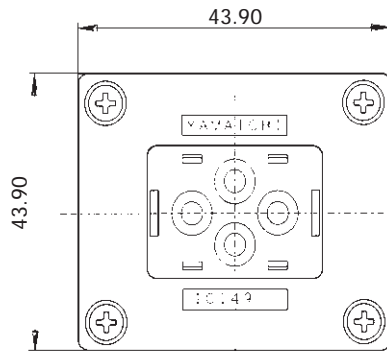
1 = With Pins

Contact Plating:

B 5= Au over Ni

Compatible Emulation-Adapter ICP-128-2

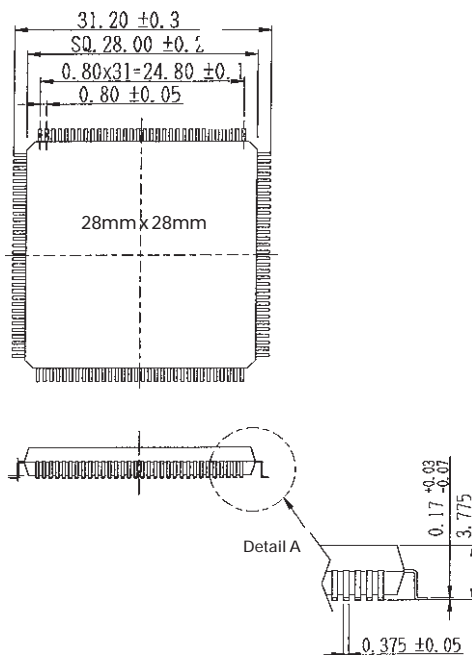
Outline Socket Dimensions (Reference Only)



Remarks

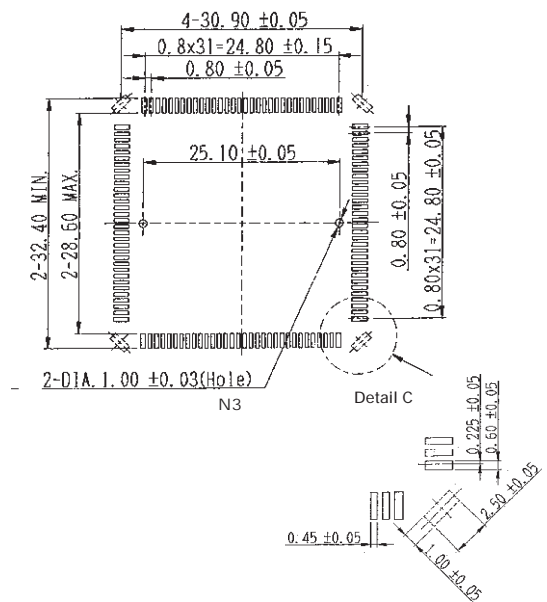
1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. This Socket is not for automatic production. It is particularly suitable for the development of software stored in ROM and for testing LSI-IC's.
3. Careful attention must be taken when fixing the Socket, since it is entirely made from thermoplastic material. If the max. torque is exceeded, the Socket will be damaged beyond repair.
4. If using the Socket with an Adapter, please use the gold-plated Socket version.

IC - Dimensions



Socket PCB-Layout

Top View from Socket



Notes

N3: These holes are only necessary for use with positioning pins.

IC149 / ICP Series

Emulation-Adapter (128 pins)

Specifications

- Insulation Resistance: 500MΩ at 150V DC
- Withstanding Voltage: 700V AC for 1 minute
- Contact Resistance: 30mΩ max. at 10mA and 20mV
- Operating Temp. Range: -25°C to +85°C
- Reflow-soldering Temp.: 220°C for 60 seconds
- Mating Cycles: 20 insertions maximum
- Allowable Torque (max.):
 - for 1-time screw connection = max 0.147 Nm
 - for repetitive screw connection = min 0.078 Nm
max 0.098 Nm

Adapter Part Number

ICP-128-2

Compatible Socket (Part No.)

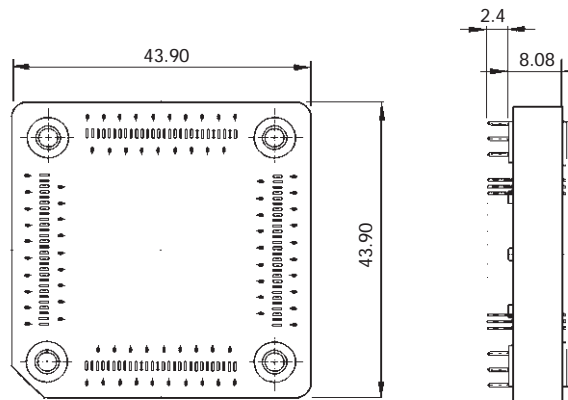
- IC149-128-080-B5 (w/o pos. pins)
- IC149-128-180-B5 (with pos. pins)

Materials and Finish

- Housing: PTES, glass filled UL94V-0
- Contact: Phosphor Bronze
- Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni



Outline Adapter Dimensions (Reference Only)

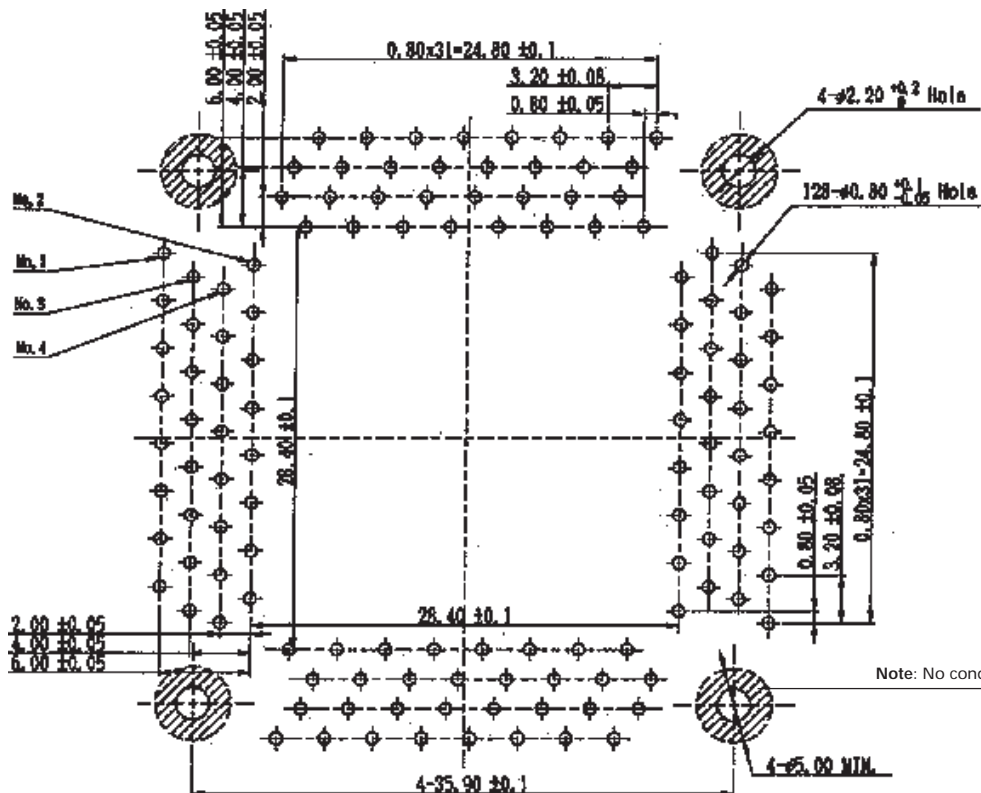


Remarks

1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. Careful attention must be taken when fixing the Adapter, since it is made from thermoplastic material. By exceeding the maximum torque a perfect performance can no longer be guaranteed.

Adapter PCB-Layout (IC149-128-*80-B5)

Top View from Soldering Side



IC149 Series (SMT)

QFP/TQFP - 132 Pins (33x33) 0.635mm pitch

Specifications

Insulation Resistance: 500MΩ at 150V DC
 Withstanding Voltage: 100V_{eff} to 700V_{eff} for 1 minute
 Contact Resistance: 30mΩ max. at 10mA and 20mV
 Operating Temp. Range: -25°C to +85°C
 Reflow-soldering Temp.: 220°C for 60 seconds
 Mating Cycles: 20 insertions maximum
 Solvent Durability: Freon
 Allowable Torque (max.):
 - for 1-time screw connection = max 0.147 Nm
 - for repetitive screw connection = min 0.078 Nm
 max 0.098 Nm

Materials and Finish

Housing: Polyphenylenesulfide (PPS) glass filled UL94V-0
 Contact: Beryllium Copper (BeCu)
 Plating: Au 0.3μm min. over 2.5 ~ 4.5μm Ni = B5



Part Number (for IC-use)

IC149 - 132 - *15 - B5

Series No.

No. of Contact Pins

Positioning Pins:

0 = Without Pins

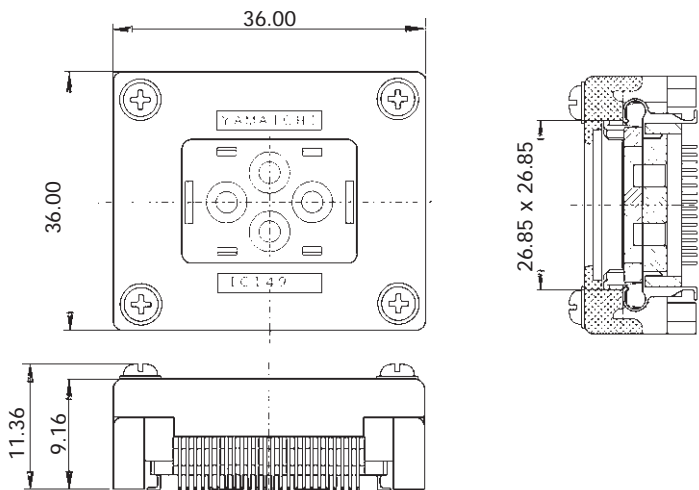
1 = With Pins

Contact Plating:

B5 = Au over Ni

Compatible Emulation-Adapter not available

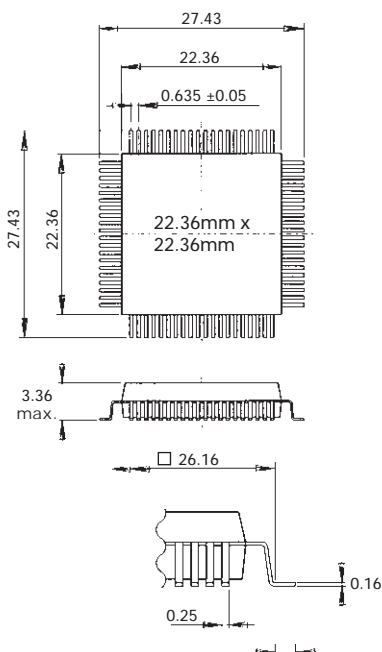
Outline Socket Dimensions (Reference Only)



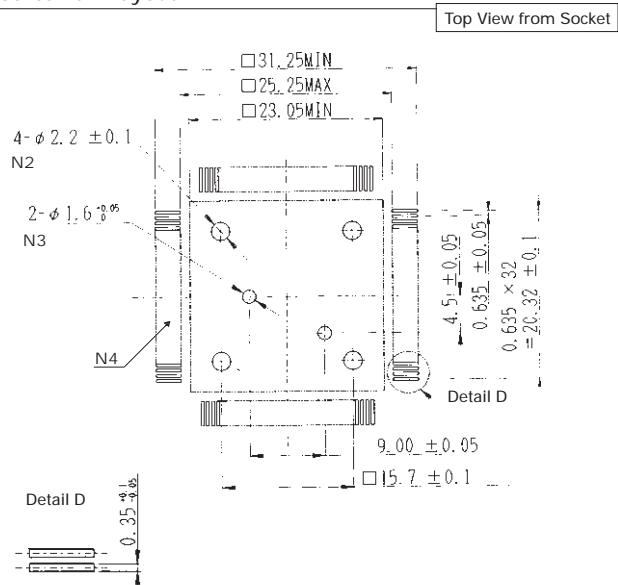
Remarks

1. Ensure a clean contact area. Fluxes, dust and other impurities may cause corrosion and contact problems.
2. This Socket is not for automatic production. It is particularly suitable for the development of software stored in ROM and for testing LSI-IC's.
3. Careful attention must be taken when fixing the Socket, since it is entirely made from thermoplastic material. If the max. torque is exceeded, the Socket will be damaged beyond repair.
4. If using the Socket with an Adapter, please use the gold-plated Socket version.

IC - Dimensions



Socket PCB-Layout



Notes

- N2:** These holes are only necessary when fixing the Socket with screws.
N3: These holes are only necessary for use with positioning pins.
N4: The Socket may be glued to the PC Board within this area.