

# DIP SOCKETS

## Quick Reference Guide

Our large selection of DIP sockets ranging from 6 to 48 contacts provides a highly reliable connection between your integrated circuit (IC) devices and PCBs. Termination options include through hole and surface mounting, four-finger and dual leaf contacts, as well as a variety of plating options.

### Applications

- Industrial controls
- Intelligent buildings
- Medical devices
- Military
- Other embedded systems

### Features

- 6 to 48 positions
- Precision four-finger inner contacts or dual leaf contacts are optional
- Open frame and closed frame housings
- End-to-end and side-to-side stackable
- Available with a variety of plating options

### Benefits

- Quick IC mating/unmating
- Easy field IC replacement
- Avoidance of IC overheating during soldering
- Flexibility of system upgrade
- Large portfolio offers product closest to your need

## DIP Sockets

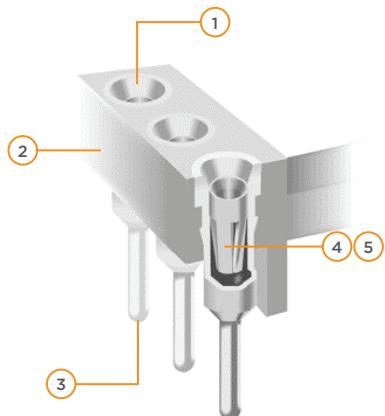
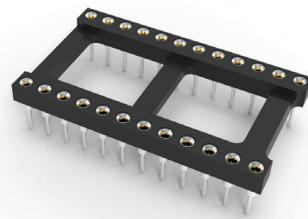
### Four-Fingered Contacts

Precision machined or stamped four-finger inner contacts with open or closed frame housings facilitate highly reliable DIP sockets.

**Closed Frame**



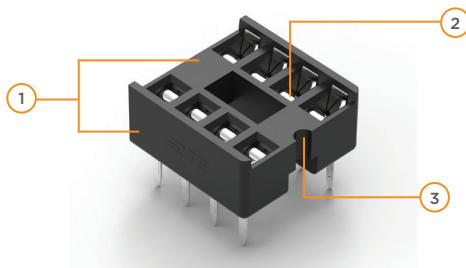
**Open Frame**



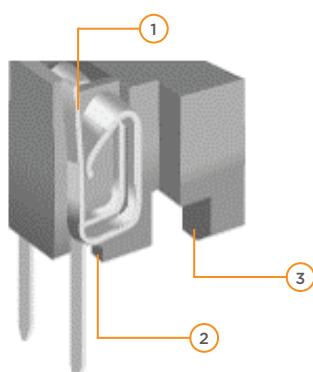
1. Wide tapered entry
2. Low profile "X" and "Y" stackable insulator
3. Non-wicking closed bottom
4. Precision four-finger inner contact provides concentric funnel entry for easy flat and round lead insertion
5. Machined or stamped contacts are available

### Dual Leaf Contacts

Dual leaf contacts provide a cost effective solution to the DIP socket design with superior handling characteristics.



1. Designed for automatic machine insertion — IC-to-socket or socket-to-board
2. Large target area with tapered lead-in ramps for easy DIP insertion
3. Polarization notch



1. Dual leaf contacts enlarge the contact area and ensure a low and constant contact resistance
2. True closed bottom design allows for no solder or flux wicking
3. Standoffs provide board clearance for proper cleaning after soldering

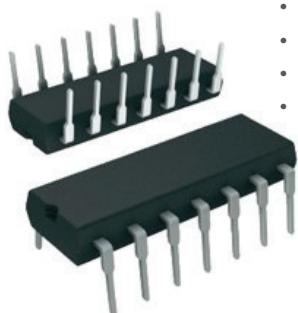
# DIP Sockets

## Technical Specifications

Technical Specs	Four-Fingered Contacts	Dual Leaf Contacts
Insulator	Thermoplastic polyester, UL94 V-0	30% glass filled PBT, thermoplastic, black
Sleeve	Copper	--
Contact	Beryllium copper	Phosphorous bronze
Sleeve Plating	Gold, tin, tin/lead	--
Contact Plating	Gold/low gold/tin	Tin
Insertion Force	Machined contact- 179 Grams AVG Stamped contact- 134 Grams AVG	300 Grams max.
Withdrawal Force	63 Grams AVG	20 Grams min.
Accepted IC PIN	.009" x .015" through .011" x .020", OR .016" to .021" diameter, .150/.105 long	.008" - .012"
Contact Rating	3 Amps/pin	1 Amp/pin
Contact Resistance	10 Milliohms max.	20 Milliohms max.
Dielectric Withstanding	Open frame- 1,000 Volts RMS per MIL-STD-1344, Method 3001.1 Closed frame- 1,000 Volts RMS per EIA-364-20	1000V AC min.

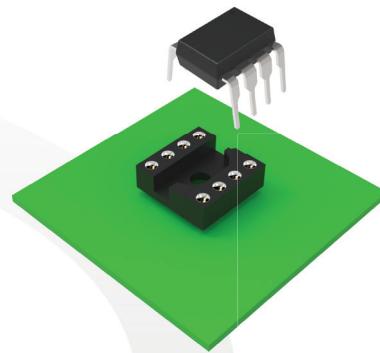
IC components are easily pressed into the socket or removed from the socket without soldering or de-soldering.

### IC in DIP Package



- Microcontrollers
- DIP switches
- LED arrays
- Electromechanical relays

### IC-to-Socket-to-Board

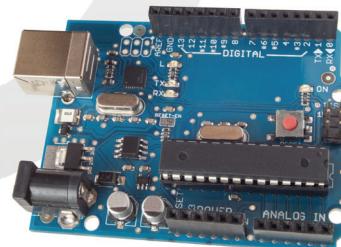


### End-Use Devices



- Intelligent security locks
- Elevators
- MRI (Magnetic Resonance Imaging) machines
- CNC (Computer Numerical Control) mill machines

### Embedded Systems



- RFID door locks
- Elevator/lift control boards
- MRI scanner control boards
- CNC mill control boards

# DIP Sockets

## Product Matrix

### DIP Socket with Four-Fingered Contact

Position	RoHS Compliant						Not RoHS Compliant					
	Plating		Open Frame		Closed Frame		Plating		Open Frame		Closed Frame	
	Contact	Sleeve	Stamped Contact	Machined Contact	Stamped Contact	Machined Contact	Contact	Sleeve	Stamped Contact	Machined Contact	Stamped Contact	Machined Contact
6	Tin	Tin	N/A	N/A	1571551-1	1571550-1						
	Gold Flash		N/A	N/A	2-1571551-1	N/A	Gold Flash	Tin/ Lead	N/A	N/A	1437535-8	N/A
	Gold		N/A	N/A	4-1571551-1	2-1571550-1	Gold		N/A	N/A	1437535-7	6-1437529-8
	Gold	Gold	N/A	N/A	1437535-6	6-1437529-5						
8	Tin	Tin	1571552-2	1571586-2	1571551-2	1571550-2						
	Gold Flash		2-1571552-2	N/A	2-1571551-2	N/A	Gold Flash	Tin/ Lead	1437539-6	N/A	1-1437535-5	N/A
	Gold		4-1571552-3	2-1571586-2	4-1571551-2	2-1571550-2	Gold		1437539-5	1437537-8	1-1437535-4	7-1437529-9
	Gold	Gold	1437539-2	1437537-5	1-1437535-2	7-1437529-5						
14	Tin	Tin	1571552-3	1571586-3	1571551-3	1571550-3						
	Gold Flash		2-1571552-3	N/A	2-1571551-3	N/A	Gold Flash	Tin/ Lead	1-1437539-7	N/A	9-1437535-4	N/A
	Gold		4-1571552-2	2-1571586-3	4-1571551-3	2-1571550-3	Gold		1-1437539-6	2-1437537-4	9-1437535-3	2-1437531-0
	Gold	Gold	1-1437539-4	2-1437537-1	9-1437535-1	1-1437531-7						
16	Tin	Tin	1571552-4	1571586-4	1571551-4	1571550-4						
	Gold Flash		2-1571552-4	N/A	2-1571551-4	N/A	Gold Flash	Tin/ Lead	2-1437539-9	N/A	1437536-7	N/A
	Gold		4-1571552-4	2-1571586-4	4-1571551-4	2-1571550-4	Gold		2-1437539-8	4-1437537-0	1437536-6	1437536-5
	Gold	Gold	2-1437539-6	3-1437537-7	1437536-3	1437536-2						
18	Tin	Tin	1571552-5	1571586-5	1571551-5	1571550-5						
	Gold Flash		2-1571552-5	N/A	2-1571551-5	N/A	Gold Flash	Tin/ Lead	4-1437539-4	N/A	1-1437536-6	N/A
	Gold		4-1571552-5	2-1571586-5	4-1571551-5	2-1571550-5	Gold		4-1437539-3	5-1437537-7	1-1437536-5	6-1437531-9
	Gold	Gold	4-1437539-1	5-1437537-6	1-1437536-4	1-1437536-3						
20	Tin	Tin	1571552-6	1571586-6	1571551-6	1571550-6						
	Gold Flash		2-1571552-6	N/A	2-1571551-6	N/A	Gold Flash	Tin/ Lead	5-1437539-3	N/A	2-1437536-7	N/A
	Gold		4-1571552-6	2-1571586-6	4-1571551-6	2-1571550-6	Gold		5-1437539-2	6-1437537-6	2-1437536-6	2-1437536-5
	Gold	Gold	5-1437539-0	6-1437537-4	2-1437536-3	7-1437531-8						
22	Tin	Tin	1571552-7	1571586-7	1571551-7	1571550-7						
	Gold Flash		2-1571552-7	N/A	2-1571551-7	N/A	Gold Flash	Tin/ Lead	6-1437539-3	N/A	3-1437536-5	N/A
	Gold		4-1571552-7	2-1571586-7	4-1571551-7	2-1571550-7	Gold		6-1437539-2	7-1437537-8	3-1437536-4	1437532-2
	Gold	Gold	6-1437539-0	7-1437537-7	3-1437536-3	9-1437531-9						
24	Tin	Tin	1571552-8	1571586-8	1571551-8	1571550-8						
	Gold Flash		2-1571552-8	N/A	2-1571551-8	N/A	Gold Flash	Tin/ Lead	7-1437539-0	N/A	4-1437536-2	N/A
	Gold		4-1571552-8	2-1571586-8	4-1571551-8	2-1571550-8	Gold		6-1437539-9	8-1437537-2	4-1437536-1	4-1437536-0
	Gold	Gold	6-1437539-7	8-1437537-1	3-1437536-9	3-1437536-8						
28	Tin	Tin	1571552-9	1571586-9	1571551-9	1571550-9						
	Gold Flash		2-1571552-9	N/A	2-1571551-9	N/A	Gold Flash	Tin/ Lead	9-1437539-2	N/A	5-1437536-7	N/A
	Gold		4-1571552-9	2-1571586-9	4-1571551-9	2-1571550-9	Gold		9-1437539-1	1437538-4	5-1437536-6	5-1437536-5
	Gold	Gold	8-1437539-9	1437538-3	5-1437536-3	5-1437536-2						

## DIP Sockets

### DIP Socket with Four-Fingered Contact (continued)

Position	RoHS Compliant						Not RoHS Compliant					
	Plating		Open Frame		Closed Frame		Plating		Open Frame		Closed Frame	
	Contact	Sleeve	Stamped Contact	Machined Contact	Stamped Contact	Machined Contact	Contact	Sleeve	Stamped Contact	Machined Contact	Stamped Contact	Machined Contact
32	Tin	Tin	1-1571552-0	1-1571586-0	1-1571551-0	1-1571550-0						
	Gold Flash		3-1571552-0	N/A	3-1571551-0	N/A	Gold Flash	Tin/Lead	1437540-3	N/A	6-1437536-5	N/A
	Gold		5-1571552-0	3-1571586-0	5-1571551-0	3-1571550-0	Gold		1437540-2	2-1437538-2	6-1437536-4	6-1437532-1
	Gold	Gold	1437540-1	2-1437538-1	6-1437536-3	5-1437532-8						
36	Tin	Tin	1-1571552-1	1-1571586-1	1-1571551-1	1-1571550-1						
	Gold Flash		3-1571552-1	N/A	3-1571551-1	N/A	Gold Flash	Tin/Lead	1-1437540-1	N/A	N/A	N/A
	Gold		5-1571552-1	3-1571586-1	5-1571551-1	3-1571550-1	Gold		1-1437540-0	2-1437538-7	7-1437536-2	7-1437532-1
	Gold	Gold	N/A	N/A	7-1437536-1	N/A						
40	Tin	Tin	1-1571552-2	1-1571586-2	1-1571551-2	1-1571550-2						
	Gold Flash		3-1571552-2	N/A	3-1571551-2	N/A	Gold Flash	Tin/Lead	1-1437540-7	N/A	7-1437536-6	N/A
	Gold		5-1571552-2	3-1571586-2	5-1571551-2	3-1571550-2	Gold		1-1437540-6	3-1437538-0	7-1437536-5	7-1437536-4
	Gold	Gold	1-1437540-4	2-1437538-9	7-1437536-3	7-1437532-6						
48	Tin	Tin	1-1571552-4	1-1571586-4	N/A	N/A		Tin/Lead	4-1437538-2	N/A	N/A	N/A
	Gold Flash		3-1571552-4	N/A	N/A	N/A	Gold Flash		2-1437540-6	4-1437538-1	N/A	N/A
	Gold		5-1571552-4	3-1571586-4	N/A	N/A	Gold					
	Gold	Gold	2-1437540-5	3-1437538-9	N/A	N/A						

### DIP Socket with Dual Leaf Contact

Part Number	Description	Position	Centerline (mm)	Solder Type	Contact Plating**
1-2199298-1	6P, DIP SKT, 300 CL, LDR, PB FREE	6	7.62	Through Hole	Tin
1-2199298-2	8P, DIP SKT, 300 CL, LDR, PB FREE	8	7.62	Through Hole	Tin
1-2199298-3	14P, DIP SKT, 300 CL, LDR, PB FREE	14	7.62	Through Hole	Tin
1-2199298-4	16P, DIP SKT, 300 CL, LDR, PB FREE	16	7.62	Through Hole	Tin
1-2199298-5	18P, DIP SKT, 300 CL, LDR, PB FREE	18	7.62	Through Hole	Tin
1-2199298-6	20P, DIP SKT, 300 CL, LDR, PB FREE	20	7.62	Through Hole	Tin
1-2199298-8	24P, DIP SKT, 300 CL, LDR, PB FREE	24	7.62	Through Hole	Tin
1-2199298-9	28P, DIP SKT, 300 CL, LDR, PB FREE	28	7.62	Through Hole	Tin
1-2199299-2	28P, DIP SKT, 600 CL, LDR, PB FREE	28	15.24	Through Hole	Tin
1-2199300-2	32P, DIP SKT, 600 CL, OTC, PB FREE	32	15.24	Through Hole	Tin
1-2199299-5	40P, DIP SKT, 600 CL, LDR, PB FREE	40	15.24	Through Hole	Tin

Once you determine the correct base number, please visit to [www.te.com](http://www.te.com) to access the customer drawing and identify the specific part number.

## Frequently Asked Questions

### Question 1

DIP packages can be assembled onto a PCB through either wave soldering or through socketing. When should I use a socket?

### Answer 1

Benefits of using a socket include: component test, upgrade and exchange, flexibility in IC design, assembly and cost savings.

### Question 2

What's the difference between stamped contact and machined contact?

### Answer 2

Stamping and machining are types of connector manufacturing technologies. TE has developed and produced DIP socket contacts using stamping technology as an alternative to traditional screw machined contacts, which is an economical option.

### Question 3

What does "300 CL/600 CL, LDR, OTC" mean in the description of DIP sockets with dual leaf contacts?

### Answer 3

300 CL means the centerline of the product is 0.3in (7.62mm). So, 600 CL means the centerline is 0.6in (15.24mm). LDR means that the frame is ladder style and OTC means the frame is over-the-component style.

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