

Sculptured Jumpers

Flexible circuit technology incorporating rugged termination features

Fig 1. Typical Dimensions

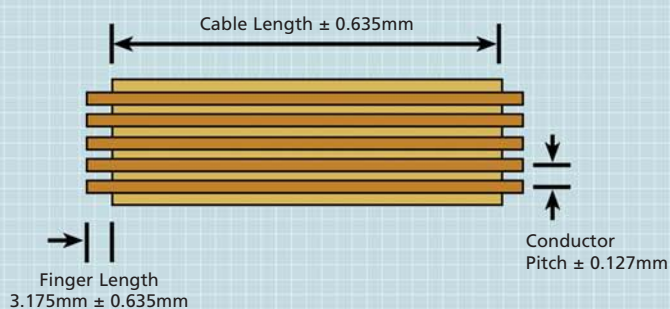
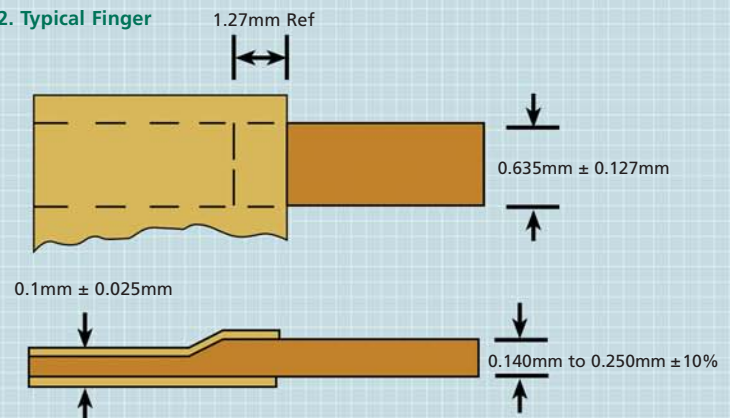


Fig 2. Typical Finger



General Description

A general purpose interconnection system using established Sculptured circuit technology which combines maximum flexibility with rugged termination features.

Benefits

- Space and mass savings
- Standard jumper lengths up to 101.6mm (4 inches)
- Custom jumpers on request
- Hand, wave or reflow solderable
- Differential conductor thicknesses combine flexibility with rugged terminations (see figure 2)
- Straight or formed fingers for surface mount or through hole soldering
- Elimination of connectors
- Plugs into standard sockets
- Superior current carrying capacity and heat dissipation
- Good flexibility
- No tooling charge for standard jumpers

Termination Fingers

Sculptured jumpers feature unique integral termination fingers for maximum strength and reliability. (See Fig 2)

These can be formed in various ways.

Connectors

Sculptured jumpers are suitable for use with many standard PCB-mounting socket headers. (See Fig 3)

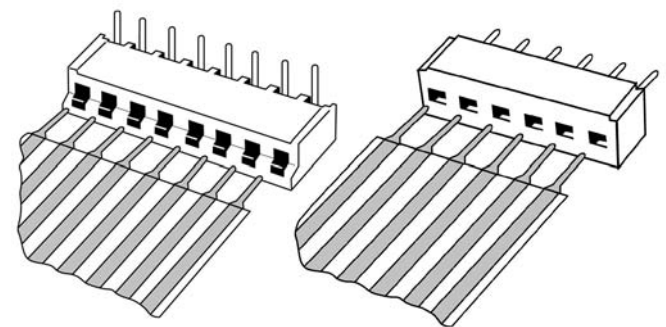


Fig 3. Sculptured jumpers can be used with many standard sockets

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Design Tips

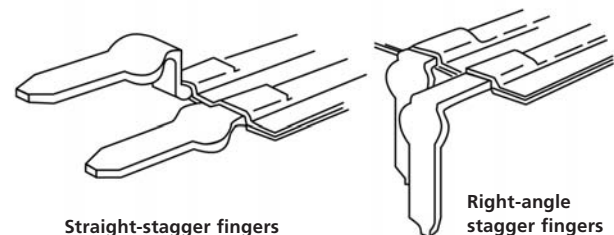
- When required, fingers should be formed prior to solder assembly and it is normal for this to be undertaken by Teknoflex on your behalf.
- For ease of assembly a maximum cable width of 75mm is recommended.
- Include a 10% service loop in the cable length for strain relief.
- Wherever possible it is cost effective to specify one of the standard insulation lengths. These sizes, which are available with a 2.54mm (0.1 inch) pitch and without artwork design and tooling charges, are detailed opposite.
- Consult our engineering team and/or refer to our Designers Guide during the design process.

Standard Jumper Lengths

Inches	mm (approx)
0.5	12.5
1.0	25
1.5	37.5
2.0	51.0
2.5	63.5
3.0	76.0
3.5	89.0
4.0	102.0

Options

- Pre-tooled standard jumpers available
- Surface or through hole mounting
- Standard jumper lengths to 101.6mm (4 inches)
- Custom jumper lengths to 558.8mm (22 inches)
- Conductor pitches down to 0.635mm (0.025 inches)
- Polyimide, Polyester (PET), Polyethylene naphthalate (PEN) dielectric films
- RoHS compliant electrolytic matt tin standard finish. Other finishes to order
- Custom finger patterns
- Raised contact points (RCPs)
- Surface mount interconnects (SMIs)
- Flame retardant dielectric materials



Sculptured Circuits

If you need greater design flexibility, all of the features and advantages of Sculptured circuits and flexible circuits can be combined in a custom interconnection system.

Please ask for details.

ORDERING CODE

SJ - 100 - 12 - 3.0 - K A T (RoHS)

SCULPTURED JUMPER	_____	SURFACE FINISH RoHS compliant electrolytic matt tin. Other finishes to order
CONDUCTOR PITCH (x0.001")	_____	FINGER ARRANGEMENT
NUMBER OF CONDUCTORS	_____	A = Straight
INSULATION LENGTH (Inches)	_____	B = Right Angle
INSULATION MATERIAL (K=0.001" polyimide)	_____	C = Right Angle Stagger
(M=0.001" polyester (PET))		D = Straight Stagger
(P =0.001" polyethylene naphthalate (PEN))		

Note: If a standard jumper does not meet your requirements Teknoflex will be happy to design a custom solution. Please speak to your account manager or contact the sales office for details.

