



(1,27mm) .050"

SFM, SFML SERIES

SFM-110-02-L-S-LC

SFM-110-T2-L-D-LC

SFM-115-02-L-D-A

SFML-125-T2-L-D-LC

# SMT TIGER EYE™ SOCKET

## SPECIFICATIONS

For complete specifications and recommended PCB layouts see [www.samtec.com?SFM](http://www.samtec.com?SFM) or [www.samtec.com?SFML](http://www.samtec.com?SFML)

### Insulator Material:

Black Liquid Crystal Polymer  
**Contact Material:**  
 Tiger Eye™ = BeCu  
 Tiger Eye™ LITE = Phosphor Bronze  
**Plating:**  
 Au or Sn over 50µ" (1,27µm) Ni



### Voltage Rating:

350 VAC mated with TFM  
**Operating Temp Range:**  
 -55°C to +125°C

### Contact Resistance:

15 mΩ max

### Insertion Depth:

(3,05mm) .120" to (4,06mm) .160"

### Wiping Distance:

(0,38mm) .015"

### Normal Force:

Standard= 132g (1,29N) avg.; LIF= 90g (0,88N) avg.

### Insertion Force (SFM):

(Single contact only) Standard= 2.5oz (0,69N) avg.; LITE= 2.0oz (0,56N) avg.

### Withdrawal Force (SFM):

(Single contact only) Standard= 2.0oz (0,56N) avg.; LITE= 1.5oz (0,42N) avg.

### Insertion Force (SFML):

(Single contact only) 2.5oz (0,69N) avg.

### Unmating Force (SFML):

Withdrawal force per contact (Single contact only)= 1.5oz (0,42N) average; Incremental unmatting force with friction locks: 10-20 pins/row (One Lock) increases withdrawal force by 4 x average; 25 & 30 pins/row (Two Locks) increases withdrawal force by 3 x average; 35-50 pins/row (Three Locks) increases withdrawal force by 1.7 x average

### Max Cycles:

10,000 with 30µ" (0,76µm) Au

### RoHS Compliant:

Yes

### Processing:

**Max Processing Temp:**  
 230°C for 60 seconds, or 260°C for 20 seconds 3x

### Lead-Free Solderable:

Yes

### SMT Lead Coplanarity:

(0,10mm) .004" max (05-25)

(0,15mm) .006" max (30-50)

**SFM Mates with:**  
 TFM, TFSD, TFSS, FTS (LIF), FW (LIF), FTSH (LIF)

**SFML Mates with:**  
 TFML



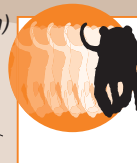
High reliability Tiger Eye™ contacts

(1,27mm x 1,27mm) .050" x .050" micro pitch



Locking feature increases unmatting force (SFML)

SMT tails



**ELP**  
 EXTENDED LIFE PRODUCT

10 Year Mixed Flowing Gas (MFG) 1,000 cycles when mated with TFM

## APPLICATION SPECIFIC OPTION

Solder nail option available. Call Samtec.

Choice of alignment pin or locking clip options

## COST-SAVING APPLICATIONS



Lower cost Phosphor Bronze contact (-T2) for applications where Beryllium Copper is not needed. See SFC Series for lower cost plating options.

TYPE STRIP	NO. PINS PER ROW	LEAD STYLE	PLATING OPTION	ROW OPTION	OPTION
1	05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 (Call Samtec or see SFMC Series for more sizes)	-02 = Tiger Eye™ Contact -L2 = Low Insertion Force Tiger Eye™ Contact -T2 = Tiger Eye™ LITE Contact	-L = 10µ" (0,25µm) Gold on contact, Matte Tin on tail -S = 30µ" (0,76µm) Gold on contact, Matte Tin on tail	-S = Single Row (SFM only) -D = Double Row	-A = Alignment Pin (N/A with -LC) -LC = Locking Clip (N/A with -A) -K = (4,00mm) .157" DIA Polyimide film Pick & Place Pad -P = Plastic Pick & Place Pad -TR = Tape & Reel

**RUGGEDIZED**  
by SAMTEC

SINGLE ROW

DOUBLE ROW

-A OPTION

-LC OPTION

-P OPTION

**Note:** Other Gold plating options available. Contact Samtec.

**Note:** Some sizes, styles and options are non-standard, non-returnable.

Due to technical progress, all designs, specifications and components are subject to change without notice.

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