

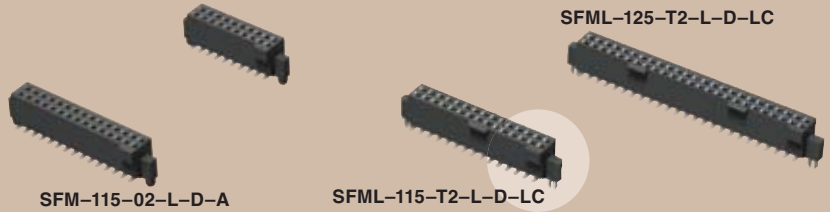


(1,27mm) .050"

SFM, SFML SERIES

SFM-110-02-L-S-A

SFML-125-T2-L-D-LC



SFM-115-02-L-D-A

SFML-115-T2-L-D-LC

# SMT TIGER EYESOCKET

## 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  
Copolymer

### 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.;

LIF= 1.4oz (0,39N) avg.

### Withdrawal Force (SFM):

(Single contact only)

Standard= 2.0oz (0,56N) avg.;

LITE= 1.5oz (0,42N) avg.;

LIF= 1.0oz (0,28N) 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

unmating 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:

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, TFSD (-XL option),  
TFSDT (-XL option)



High reliability  
Tiger Eye™ contacts

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

Locking  
feature  
increases  
unmating  
force  
(SFML)

SMT tails



## APPLICATION SPECIFIC OPTION

Solder nail option for (2,36mm) .093" thick board available. Call Samtec.

CURRENT RATING	
AMBIENT TEMP	TFM/SFM
20°C	5A
40°C	4.5A
60°C	3.9A
95°C	2.6A

1,27mm SFM/TFM	Rated @ 3dB Insertion Loss
<b>6,35mm Stack Height</b>	
Single-Ended Signaling	6.0 GHz / 12 Gbps
Differential Pair Signaling	7.0 GHz / 14 Gbps

Performance data for other stack heights and complete test data available at [www.samtec.com?SFM](http://www.samtec.com?SFM) or contact sig@samtec.com

## 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	Specify only -A, -LC, or -SN  -A = Alignment Pin  -LC = Locking Clip (Manual placement required)  -SN = Solder Nail (-S row N/A)  Specify only -K or -P  -K = Polyimide film Pick & Place Pad  -P = Plastic Pick & Place Pad  Specify -TR last  -TR = Tape & Reel

• Passes 10 Year MFG  
• Locking option  
• Locking clip option  
• Weld tab option  
• Solder nail option for up to 25Gs

(2,03) .080  
(1,27) .050 x No. of Positions + (3,94) .155 except for alignment pin option:  
(1,27) .050 x No. of Positions + (3,17) .125  
(1,27) .050 x No. of Positions + (0,38) .015  
(1,78) .070  
(1,27) .050 TYP  
(3,05) .120  
(1,27) .050

(1,27) .050  
(1,59) .063  
(1,27) DIA  
(1,41 x 0,25) .056 x .010  
(1,59) .063  
(1,65) .065  
(1,27) .050

(2,41) .095  
(4,70) .185  
(3,18) .125  
(0,51) .020

(2,79) .110  
(0,58) .023  
(3,68) .145  
(0,13) .005 TYP  
(4,19) .165  
(0,66) .026 DIA

**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.

[WWW.SAMTEC.COM](http://WWW.SAMTEC.COM)