



**THE DATASHEET OF
TFM-104-01-L-D-RA**



RUGGED TIGER EYE™ SYSTEMS

(1.27 mm) .050" PITCH

MAX
3.7
A m p s

8
G b p s

FEATURES & BENEFITS

- Screw down, locking clip, friction latching and weld tab ruggedizing options
- Shrouded, polarized and keyed
- Surface mount or through-hole tails
- High-density, four row design (FOLC/MOLC Series)
- Discrete wire assemblies available in single or double row, 28 and 30 AWG PVC or *Teflon™ Fluoropolymer (See pages 238-239). Contact asp@samtec.com for custom solutions.
- Cable components (ISDF/CC03) and tooling available: samtec.com/tooling
- Severe Environment Testing qualified (SFM/TFM); aligns with MIL-DTL-55302. Visit samtec.com/set

*Teflon™ is a trademark of The Chemours Company FC, LLC used under license by Samtec.

KEY SPECIFICATIONS

| SERIES | STACK HEIGHTS | INSULATOR MATERIAL | CONTACT MATERIAL | PLATING | OPERATING TEMP RANGE | CURRENT RATING | VOLTAGE RATING | MAX. CYCLES | LEAD-FREE SOLDERABLE |
|---------|---------------|--------------------|-------------------------------------|----------------------------------|----------------------|--------------------------------|----------------|--|----------------------|
| SFM/TFM | 6 to 12 mm | Black LCP | BeCu (SFM) Phosphor Bronze (TFM) | Au or Sn over 50 μ" (1.27 μm) Ni | -55 °C to +125 °C | 3.7A per pin (2 pins powered) | 275 VAC | 10,000 with 30 μ" (0.76 μm) Au | Yes |
| SFC/TFC | 6 to 12 mm | Black LCP | Phosphor Bronze | Au or Sn over 50 μ" (1.27 μm) Ni | -55 °C to +125 °C | 3.1 A per pin (2 pins powered) | 350 VAC | (Call Samtec for E.L.P.™ plating option) | Yes |

**TIGER™
EYE**
CONTACT



IDC cable assemblies with rugged strain relief (FFSD/FFMD, FFTP/FMTP)



Locking for increased unmating force (SFML/TFML)

(1.27 mm) .050" • SMT/THROUGH-HOLE HEADER

| SERIES | 1 | NO. PINS PER ROW | LEAD STYLE | PLATING OPTION | ROW OPTION | OPTIONS |
|--------|---|------------------|------------|----------------|------------|---------|
|--------|---|------------------|------------|----------------|------------|---------|

TFM
= Standard

TFML
= Locking (-01 & -02 lead style only)

03, 04, 06, 08
(TFM -01 & -02 only)

05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50
(Standard sizes)

Specify **LEAD STYLE** from chart

-L
= 15 μm (0.38 μm)
Gold on post, Matte Tin on tail (Call Samtec for E.L.P.™ plating option)

-S
= Single Row (TFM only)

-D
= Double Row

-DH*
= Double Horizontal (TFM lead style -02 only) (05 thru 50 positions only) (-TR or -FR option only available)

Specify only -RA, -RE1 or -RE2

-RA
= Right-angle (Lead style -01 only)

-RE1
= Right-angle Elevated for (1.60 mm) .062" PCB (Requires TFM lead style -01, -D row and -WT)

-RE2
= Right-angle Elevated for (2.36 mm) .093" PCB (Requires TFM lead style -01, -D row and -WT)

Specify only -A, -LC, -DS or -WT
Not available with -RA, -RE1 and -RE2 unless otherwise noted.

-A
= Alignment Pin

-LC
= Locking Clip (Manual Placement required)

-DS
= Dual Screw Down for (1.60 mm) .062" PCB (05, 07, 10, 15, 20, 25, 30, 35, 40 positions only) (TFM lead styles -01 and -02 only) (Requires -D row option) (Mates with SFM-DS option and SFSD/SFSDT -SS and -DS option only) (Not available with -A, -LC, -WT, -K, -P, -XR)

-WT
= Weld Tab (TFM lead styles -01 and -02 only) (Required callout for -RE1 & -RE2) (Mates to SFSS/SFSD -SR and -DR option only) (05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 positions only)

SMT lead styles only
Specify only -K or -P

-K
= Polyimide Film Pick & Place Pad

-P
= Plastic Pick & Place Pad (5 positions min.) (Not available with 5 position with -WT)

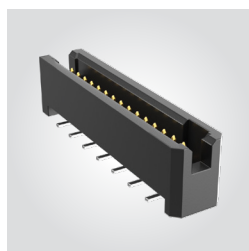
Specify -TR or -FR last (Not available with -DS)

-TR
= Tape & Reel

-FR
= Full Reel Tape & Reel (must order max. quantity per reel; contact Samtec for quantity breaks)

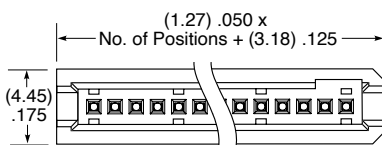
TFM

Board Mates: SFM, SFMC
Cable Mates: SFSD, SFSS

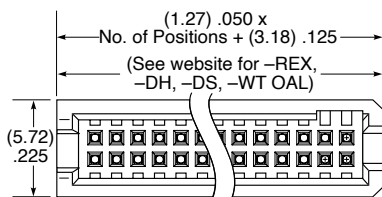


TFML

Board Mates: SFML
Cable Mates: SFSD, TFSD (-T end option)



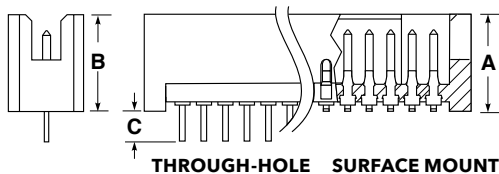
SINGLE ROW



DOUBLE ROW

| MATED HEIGHTS* | | |
|------------------|-----|---------------|
| LEAD STYLE (SMT) | | MATED HEIGHT* |
| TFM | SFM | |
| -02 | -02 | (6.35) .250 |
| -12 | | (8.13) .320 |
| -22 | | (9.91) .390 |
| -32 | | (11.81) .465 |
| LEAD STYLE (T/H) | | MATED HEIGHT* |
| TFM | SFM | |
| -01 | -01 | (5.97) .235 |
| -03 | | (5.97) .235 |
| -11 | | (7.75) .305 |
| -13 | | (7.75) .305 |
| -21 | | (9.53) .375 |
| -23 | | (9.53) .375 |
| -31 | | (11.43) .450 |

*Processing conditions will affect mated height.



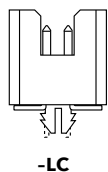
THROUGH-HOLE SURFACE MOUNT

| LEAD STYLE (SMT) | A |
|------------------|--------------|
| -02 | (5.72) .225 |
| -12* | (7.49) .295 |
| -22* | (9.27) .365 |
| -32* | (11.18) .440 |

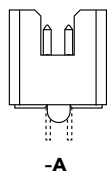
* N/A with 07, -DH or -S row option

| LEAD STYLE (T/H) | B | C |
|------------------|--------------|-------------|
| -01 | (5.59) .220 | (1.97) .078 |
| -03* | (5.59) .220 | (2.77) .109 |
| -11* | (7.37) .290 | (1.97) .078 |
| -13* | (7.37) .290 | (2.77) .109 |
| -21* | (9.14) .360 | (1.97) .078 |
| -23* | (9.14) .360 | (2.77) .109 |
| -31* | (11.05) .435 | (1.97) .078 |

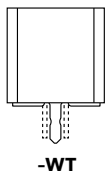
* Not Available with 07 or -S row option



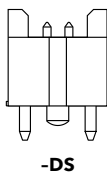
-LC



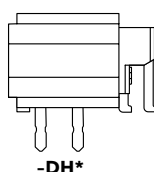
-A



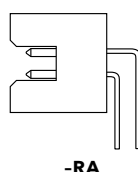
-WT



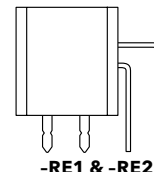
-DS



-DH*



-RA



-RE1 & -RE2

Notes:


Severe Environment Testing qualified (TFM); aligns with MIL-DTL-55302. Visit samtec.com/set

Some lengths, styles and options are non-standard, non-returnable.

View complete specifications at: samtec.com?TFM & samtec.com?TFML

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

 [View TFM-104-01-L-D-RA on WIN SOURCE](#)

 [Samtec Inc. Information](#)

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