

(1.27 mm) .050"

SMT & THROUGH-HOLE HEADER

SPECIFICATIONS

For complete specifications and recommended PCB layouts see www.samtec.com?TFM or www.samtec.com?TFML

Insulator Material:
Black Liquid Crystal Polymer
Terminal Material:
Phosphor Bronze
Plating:
Au or Sn over 50 μ " (1.27 μ m) Ni

Current Rating (TFM/SFM):
3.2 A per pin
(2 pins powered)
Voltage Rating:
250 VAC mated with SFM
Operating Temp Range:
-55 °C to +125 °C
RoHS Compliant:
Yes

PROCESSING

Lead-Free Solderable:
Yes

SMT Lead Coplanarity:
(0.10 mm) .004" max (05-25)
(0.15 mm) .006" max (30-50)*
*(.004" stencil solution may be available; contact IPG@samtec.com)

RECOGNITIONS

For complete scope of recognitions see www.samtec.com/quality



FILE NO. E111594

MATED HEIGHTS

LEAD STYLE		MATED HEIGHT*
TFM	SFM	
– 02	–02	(6.35) .250
– 12		(8.13) .320
– 22		(9.91) .390
– 32		(11.81) .465
LEAD STYLE		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.

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

TFM Board Mates:

SFM, SFMC

TFM Cable Mates:

SFSD

TFML Board Mates:

SFML

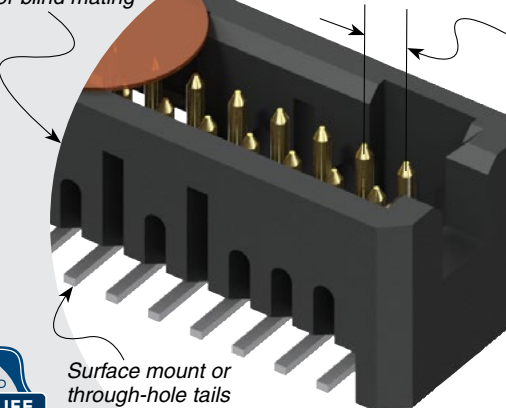
TFM-DH Board Mates:

SFM (-DH), SFMC

TFM-DH Cable Mates:

SFSDX (-S, -D, -SR, -DR)

Shrouded body for blind mating



(1.27 mm x 1.27 mm)
.050" x .050"
micro pitch

Surface mount or through-hole tails

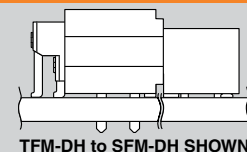


HIGH-SPEED CHANNEL PERFORMANCE

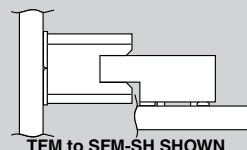
Rating based on Samtec reference channel. For full SI performance data visit Samtec.com or contact SIG@samtec.com

8
Gbps

APPLICATIONS



TFM-DH to SFM-DH SHOWN



TFM to SFM-SH SHOWN

TYPE STRIP

1

NO. PINS PER ROW

LEAD STYLE

PLATING OPTION

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

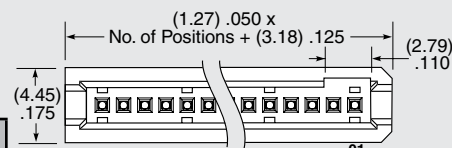
-L
= 15 μ " (0.38 μ m)
Gold on post,
Matte Tin on tail
(Call Samtec for
E.L.P.™ plating option)

OTHER SOLUTIONS

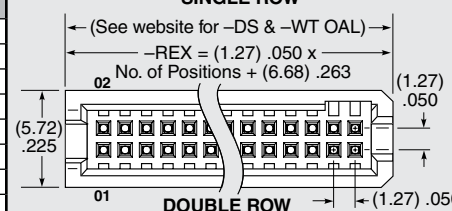
- Lower cost plating options. See TFC Series.

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

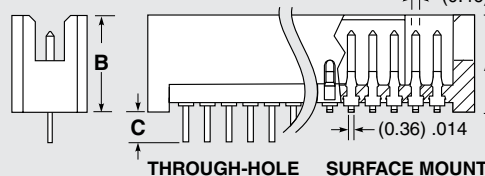
* Not Available with 07 or -S row option



SINGLE ROW



DOUBLE ROW

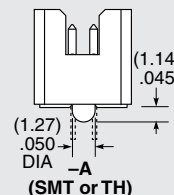


THROUGH-HOLE

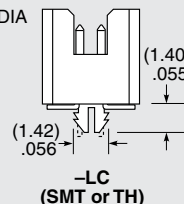
SURFACE MOUNT

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

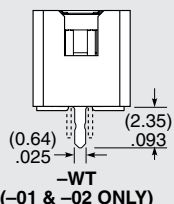
* N/A with 07, -DH or -S row option



-A (SMT or TH)



-LC (SMT or TH)



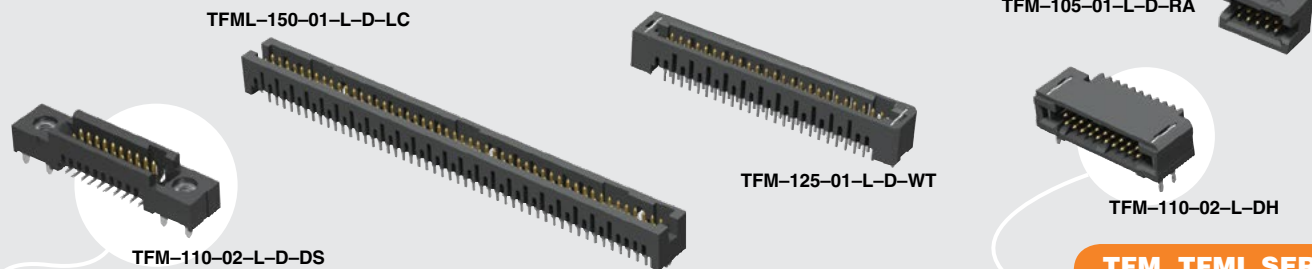
-WT (-01 & -02 ONLY)

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

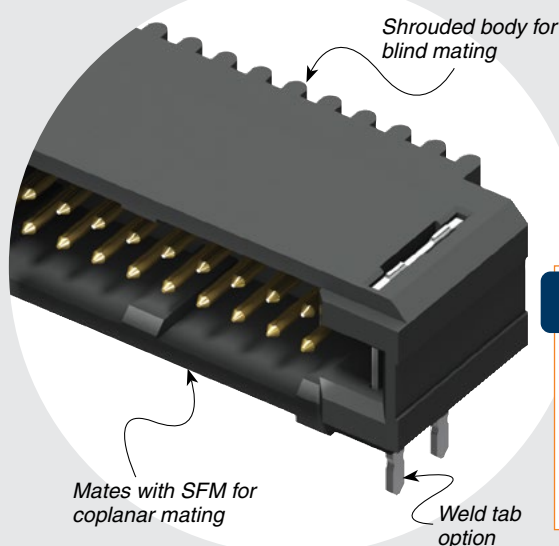
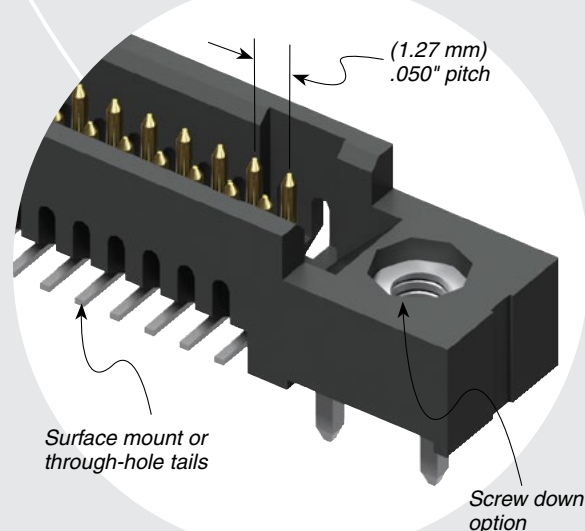
WWW.SAMTEC.COM

All parts within this catalog are built to Samtec's specifications.

Customer specific requirements must be approved by Samtec and identified in a Samtec customer-specific drawing to apply.



TFM, TFML SERIES



RUGGEDIZED BY SAMTEC

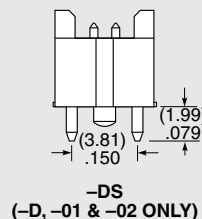
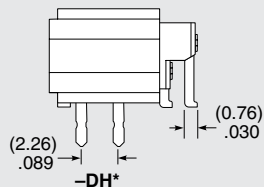
- Passes 10 Year MFG
- Locking option
- Locking clip option
- Weld tab option
- Screw down option

ROW OPTION

-S
= Single Row
(TFM only)

-D
= Double Row

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



OPTION

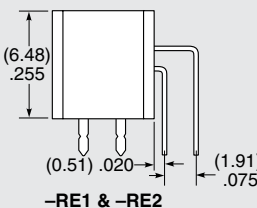
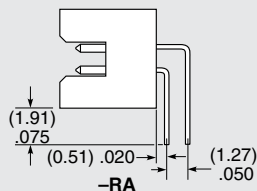
Specify only -RA, -RE1 or -RE2

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

-RE1
= Right-angle Elevated for (1.58 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)

Note: The recommended -REX PCB board layout is different from the -RA. Contact IPG@samtec.com before designing your board for specifications.



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, -TR)

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

*** Note:**
Weld tab is standard on -DH option.
No need to specify -WT.

SMT lead styles only
Specify only -K or -P

-K
= Polyimide Film Pick & Place Pad

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

Specify -TR last
-TR
= Tape & Reel
(Not available with -DS)

ALSO AVAILABLE (MOQ Required)

- Solder nail option
- Other sizes
- Other platings

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[TFM-140-02-L-D-DS](#)