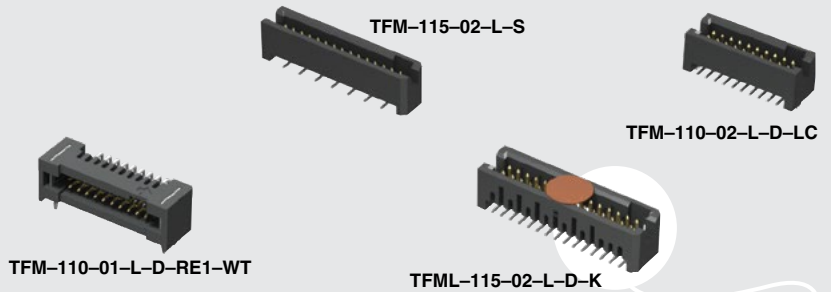




**THE DATASHEET OF
TFM-120-12-S-D**





(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 μm) 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

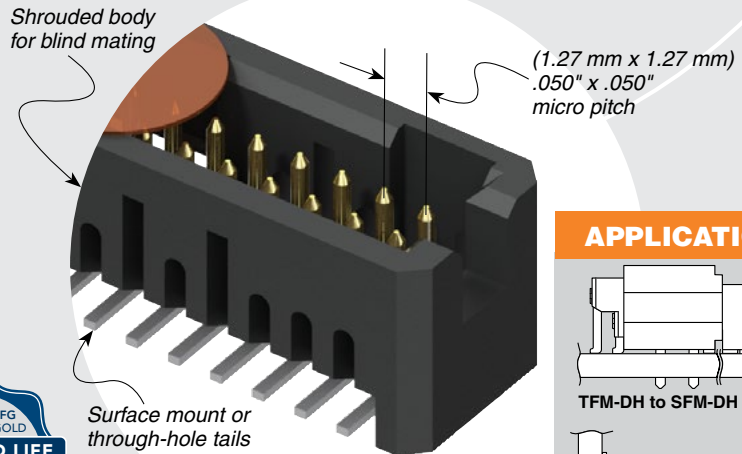
TFM Board Mates:
SFM, SFMC

TFM Cable Mates:
SFSD

TFML Board Mates:
SFML

TFM-DH Board Mates:
SFM (-DH), SFMC

TFM-DH Cable Mates:
SFSDX (-S, -D, -SR, -DR)

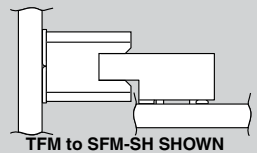
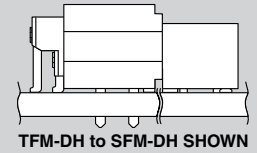


HIGH-SPEED CHANNEL PERFORMANCE

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

8 Gbps

APPLICATIONS



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



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.

TYPE STRIP

1

NO. PINS PER ROW

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

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

LEAD STYLE

Specify LEAD STYLE from chart

PLATING OPTION

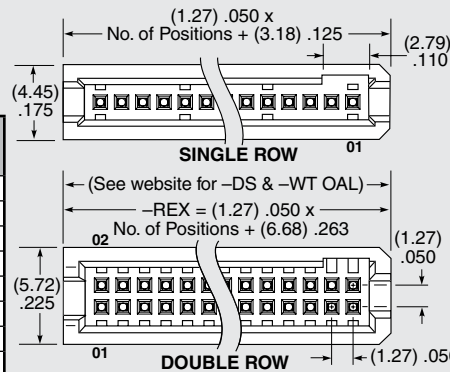
-L
= 15 μ" (0.38 μm)
Gold on post,
Matte Tin on tail
(Call Samtec for E.L.P.™ plating option)

OTHER SOLUTIONS

- Lower cost plating options. See TFC Series.

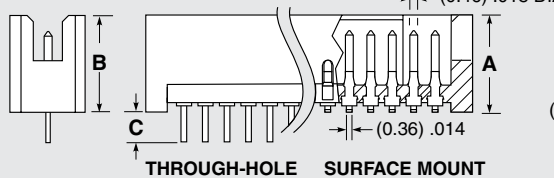
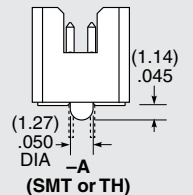
LEAD STYLE (T/H)	B	C
-01	(5.59) .220	(1.97) .078
-03*	(5.59) .220	(2.77) .109
-11*	(7.37) .290	(1.97) .078
-13*	(7.37) .290	(2.77) .109
-21*	(9.14) .360	(1.97) .078
-23*	(9.14) .360	(2.77) .109
-31*	(11.05) .435	(1.97) .078

* Not Available with 07 or -S row option



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



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

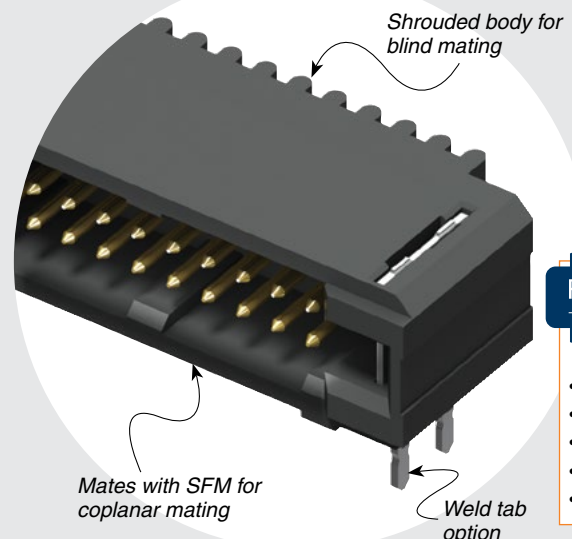
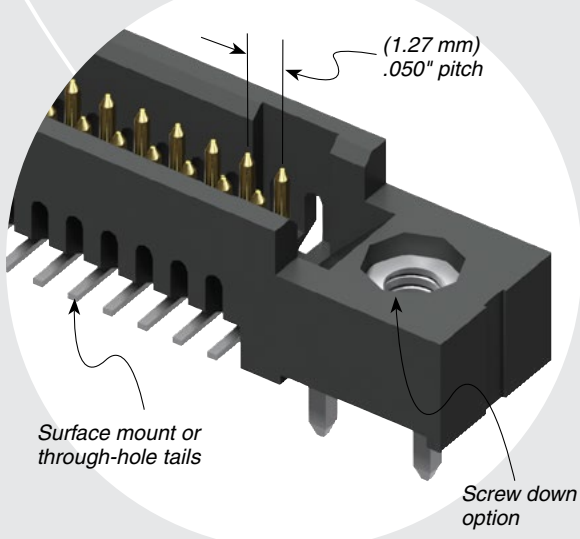
Due to technical progress, all designs, specifications and components are subject to change without notice.

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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.



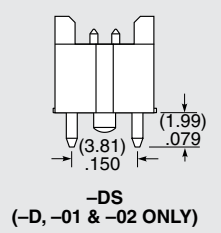
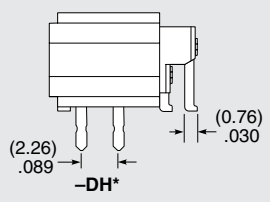
TFM, TFML SERIES



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

ROW OPTION

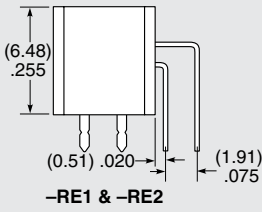
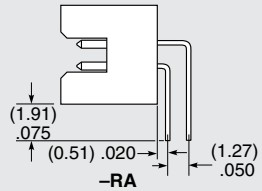
- S**
= Single Row (TFM only)
- D**
= Double Row
- DH***
= Double Horizontal (TFM lead style -02 only) (05 thru 50 positions only) (-TR option only available)



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 to SFSS/SFSD -SR and -DR option only) (05, 07, 10, 15, 20, 25, 30, 35, 40, 45, 50 positions only)

- 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

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



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