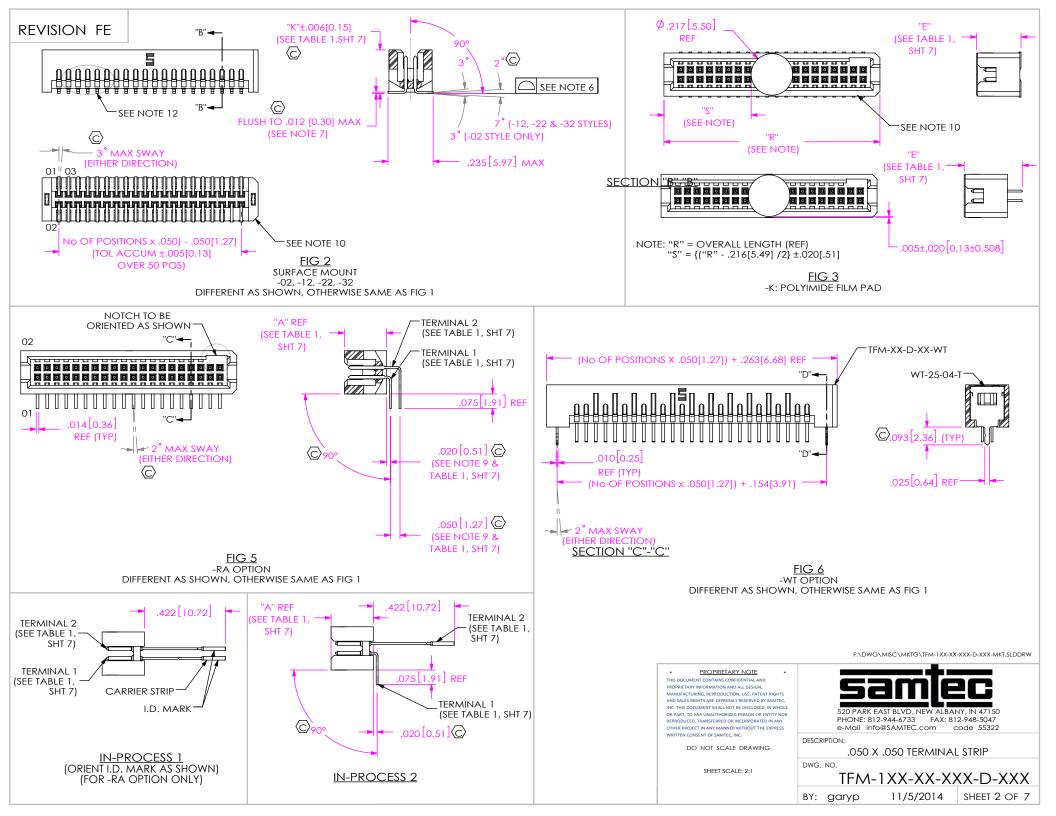
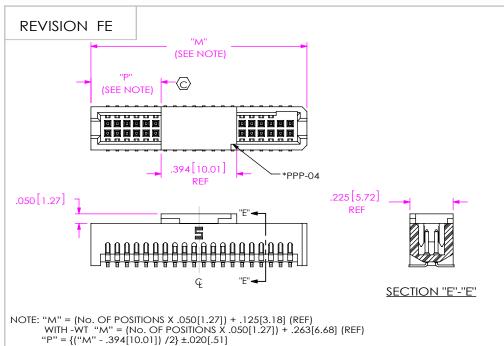
TFM-1XX-XX-XXX-D-XXX NOTES: **REVISION FE** 1. © REPRESENTS A CRITICAL DIMENSION. **OPTION** 2. MINIMUM PUSHOUT FORCE FOR CONTACTS, WELD TABS, No OF POSITIONS -A: ALIGNMENT PIN (USE TFM-XX-D-XX-A, AND THREADED INSERTS: 12 OZ. LEAD STYLE -01, -02, -03: -02 THRU -50 (ALL SEE TABLE 1) (SEE FIG 8, SHT 3) DO NOT POSITIONS AVAILABLE) 3. MINIMUM LOCKING CLIP RETENTION: 8 OZS (NOT AVAILABLE FOR -RA OR -REX) 4. MAXIMUM HEIGHT VARIATION BETWEEN ANY TWO PINS: .005[0.13] LEAD STYLES -11, -12, -13: (-05 THRU -50 MULTIPLES OF 5)
5. MAXIMUM TERMINAL BURR: .003[0.08] POSITIONS 12, 16, 17 ALSO AVAILABLE SCALE FROM -LC: LOCKING CLIP (USE LC-05-TM) THIS PRINT (NOT AVAILABLE FOR -RA OR -REX) LEAD STYLES -21, 22, 23: (-05 THRU -50 MULTIPLES OF 5) POSITIONS 12 & 13 ALSO AVAILABLE 6. COPLANARITY: .004[0.10] = POS 02 THRU 26 (C) (SEE FIG 10, SHT 3 & NOTES 3 & 11) -P: PICK AND PLACE PAD (USE PPP-04) .006[0.15] = POS 27 THRU 50 LEAD STYLES 31, 32: 12 POSITION ALSO AVAILABLE (AVAILABLE IN ALL POSITIONS -05 THRU 7. MEASURED FROM BEND. -50 EXCEPT -05 WITH -WT) 8. DIMENSION CHANGED PER REVISION AD, CONTACT ENGINEERING (NOT AVAILABLE FOR -RA OR -REX, FOR INFORMATION. LEAD STYLE SEE FIG 7, SHT 3) 9. MEASURE FROM TIPS OF PIN. -RA: RIGHT ANGLE 10. THIS FEATURE ONLY PRESENT ON -01 &-02 LEAD STYLES. THROUGH HOLE SURFACE MOUNT (AVAILABLE ONLY IN LEAD STYLE: -01 11. DUE TO THE HIGH AMOUNT OF INSERTION FORCE NEEDED. -01, -03 (SEE FIG 1 -02 (SEE FIG 2) -11. -13 (SEE FIG 1) -12 (SEE FIG 2) SEE FIG 5, SHT 2) THE -LC OPTION IS NOT COMPATIBLE WITH AUTO PLACEMENT. SAMTEC -TR: TAPE AND REEL (SEE FIG 4, SHT 7) RECOMMENDS MANUAL PLACEMENT FOR ALL ASSEMBLIES WITH THE -21,-23 (SEE FIG 1 -22 (SEE FIG 2) -32 (SEE FIG 2) (NOT AVAILABLE WITH -DS OPTION -31 (SEE FIG 1) -LC OPTION. OR THROUGH HOLE LEAD STYLE) 12. SIDES OF PLASTIC BODIES ON ALL LEAD STYLES EXCEPT THE -01, -02 & -03 **PLATING SPECIFICATION** -SA: STAKED ALIGNMENT PIN (SEE FIG 9, SHT 3) WILL BE SOLID AND WITHOUT SIDE SLOTS. -S: 30u" SELECTIVE GOLD ON CONTACT AREA. (ONLY AVAILABLE ON SURFACE MOUNT 13. NOTE DELETED. MATTE TIN TAIL LEAD STYLE) -L: 15u" SELECTIVE GOLD ON CONTACT AREA. -K: POLYIMIDE FILM (SEE FIG 3, SHT 2) (No OF POSITIONS x .050[1.27]) + .125[3.18] REF MATTE TIN TAIL (USE K-DOT-.217-.313-.005) -F: 3µ" FLASH GOLD ON CONTACT AREA, (NOT AVAILABLE FOR -RA OR -REX) (No OF POSITIONS  $\times$  .050[1.27]) + .025[.64] REF MATTE TIN TAIL (ALL LEAD STYLES EXCEPT -21 AVAILABLE) -H: 30µ" SELECTIVE GOLD ON CONTACT AREA, -WT: WELD TABS (USE WT-25-XX-T) 110 2.79 REF 3µ" FLASH GOLD ON TAIL (AVAILABLE ON -01, -02 & -03 LEAD -SM: 30µ" SELECTIVE GOLD ON CONTACT AREA, STYLES ONLY) (SEE FIG 6, SHT 2) MATTE TIN TAIL (MATES WITH SFSS/SFSD -SR & -DR ONLY) -LM: 15µ" SELECTIVE GOLD ON CONTACT AREA, (NOT AVAILABLE WITH -A, -LC, MÄTTE TIN TAIL REF -RA, OR -SA OPTIONS) -FM: 3u" FLASH GOLD ON CONTACT AREA. -RE1: RIGHT ANGLE ELEVATED .062 PCB MATTE TIN TAIL (USE TFM-XX-D-01-RE, NOT AVAILABLE -STL: 30µ" SELECTIVE GOLD ON CONTACT AREA, TIN/LEAD (90/10 ±5%) TAIL WITHOUT -WT, AVAILABLE IN LEAD STYLE -01 ONLY, -03 THRU -50 POS) .225 [5.72] .050 1.27 .075 [1.91] (MATES WITH SFSS/SFSD -SR & -DR ONLY) REF REF **REF** BODY SPECIFICATION
-D: DOUBLE ROW (SEE FIG 11, SHT 4) SEE NOTE 10 -RE2: RIGHT ANGLE ELEVATED .093 PCB (USE TFM-XX-D-01-RE, NOT AVAILABLE  $\bigcirc$ WITHOUT -WT, AVAILABLE IN LEAD .050 [1.27] (No OF POSITIONS  $\times$  .050[1.27]) - .050[1.27] STYLE -01 ONLY, -03 THRU -50 POS) MAX SWAY (MATES WITH SFSS/SFSD -SR & -DR ONLY) (EITHER DIRECTION) (SEE FIG 11, SHEET 4) - ∅.018[0.46] REF "D" REF .135 3.43 REF -SN: SOLDER NAIL FOR .062 BOARD 2° MAX SWAY -(TFM-XX-D-01-SN AND WT-27-01-T) (SEE TABLE 1 (EITHER DIRECTION) (SEE FIG12, SHT 3) SHT 7) (ONLY AVAILABLE WITH -02 LEAD STYLE) .096 2.44 (NOT AVAILABLE WITH OPTIONS -A, -LC, .1635 4.153 "A" REF -RA, -SA, -WT, -RE1 OR -RE2) -SN2: SOLDER NAIL FOR .093 BOARD (SEE TABLE 1, (TFM-XX-D-01-SN AND WT-27-02-T) SHT 7) (SEE FIG12, SHT 3) ONLY AVAILABLE WITH -02 LEAD STYLE) (NOT AVAILABLE WITH OPTIONS -A, -LC, . -RA, -SA, -WT, -RE1 OR -RE2) .010 0.25 REF -DS: DUAL SCREW DOWN FOR .062 BOARD (SEE FIG 18, SHT 5) "A"<del>-</del> "J" ± .003 [0.08] .050 [1.27] (C) (ONLY AVAILABLE WITH -01 & -02 LEAD STYLE) (SEE TABLE 1, SHT 7) (NOT AVAILABLE WITH OPTIONS -A, -LC, -P, (EITHER DIRECTION) (C) -RA, -TR, -SA, -K, -WT, -RE1, -RE2, -SN, -SN2) 2° MAX SWAY (-01 LEAD STYLE USES TFM-XX-D-01-DSL (EITHER DIRECTION) & T1-M2-4-VSFM-T, 02 LEAD STYLE USES SECTION "A"-"A' TFM-XX-D-01-DSA & T1-M2-4-VSFM-T) (No OF POSITIONS x .050[1.27]) - .050[1.27] UNLESS OTHERWISE SPECIFIED.  $\langle C \rangle$ DIMENSIONS ARE IN INCHES. MENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION AND ALL DESIGN. TOLERANCES ARE: MANUFACTURING, REPRODUCTION, USE, PATENT RIGHTS DECIMALS AND SALES RIGHTS ARE EXPRESSLY RESERVED BY SAMTEC, ANGLES INC. THIS DOCUMENT SHALL NOT BE DISCLOSED, IN WHOLE C"±.003 [0.08](C) .XX: ±.01[0.3] 2 ° OR PART. TO ANY UNAUTHORIZED PERSON OR ENTITY NOR 520 PARK FAST BLVD, NEW ALBANY, IN 47150 <u>FIG 1</u> (SEE TABLE 1 .XXX: ±.005[0.13] REPRODUCED, TRANSFERRED OR INCORPORATED IN ANY PHONE: 812-944-6733 FAX: 812-948-5047 OTHER PROJECT IN ANY MANNER WITHOUT THE EXPRESS THROUGH HOLE .XXXX: ±.0020[0.051] e-Mail info@SAMTEC.com code 55322 -01, -03, -11, -13, -21, -23, -31 MATERIAL: DO NOT SCALE DRAWING SHEET SCALE: 2.5:1 DESCRIPTION: .050 X .050 TERMINAL STRIP INSULATOR: LCP, UL 94-VO DWG. NO. COLOR: BLACK **IN-PROCESS** TFM-1XX-XX-XXX-D-XXX TERMINAL: PHOSPHOR BRONZE 11/5/2014 SHEET 1 OF 7 F:\DWG\MISC\MKTG\TFM-1XX-XX-XXX-D-XXX-MKT.SLDDRW





\* NOTCH ON PAD TO BE ON SAME END

AS THE NOTCH IN THE TFM BODY

FIG 7 -P OPTION DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1 (PAD TO BE POSITIONED ON C.L. AS SHOWN)

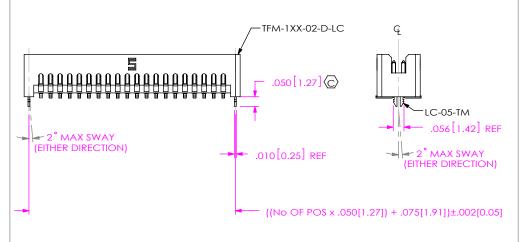


FIG 10 -LC OPTION DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1 (NOT AVAILBLE ON -RA)

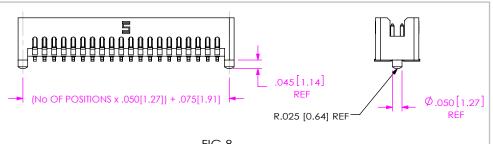


FIG 8 -A OPTION DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1

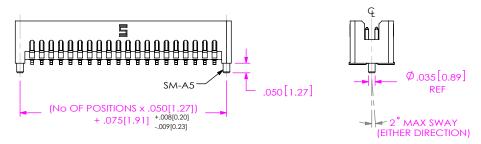
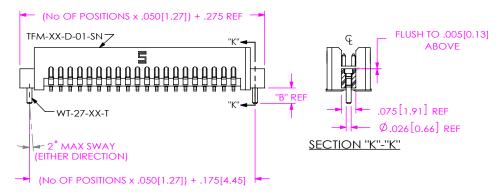


FIG 9 -SA OPTION: STAKED ALIGNMENT PIN DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1



## FIG 12 -SNX: SOLDER NAIL DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1

TABLE 4				
OPTION	"B"			
-SN	.081 2.06			
-SN2	.115 2.92			

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DESCRIPTION:

.050 X .050 TERMINAL STRIP

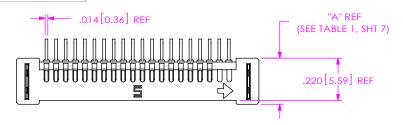
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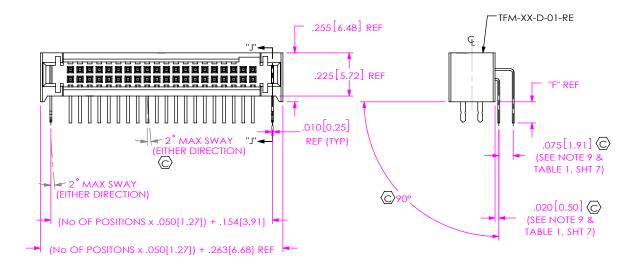
TFM-1XX-XX-XXX-D-XXX

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SHEET 3 OF 7







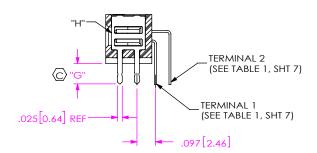
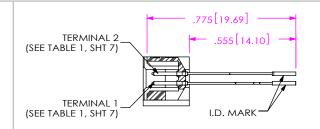


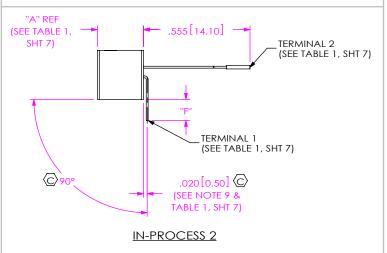
TABLE 3						
LEAD STYLE	"F"		"G"	"H"		
-01-RE1	.078	[1.98]	.074 [1.88]	WT-81-01-T		
-01-RE2	.110	[2.79]	.106 [2.69]	WT-81-02-T		

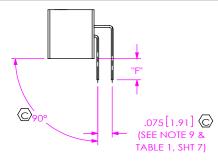
### SECTION "J"-"J"

<u>FIG 11</u> -REX: RIGHT ANGLE ELEVATED TFM-120-XX-XXX-D-RE2 SHOWN DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1



**IN-PROCESS 1** (ORIENT I.D. MARK AS SHOWN) (FOR -RA OPTION ONLY)





#### **IN-PROCESS 3**

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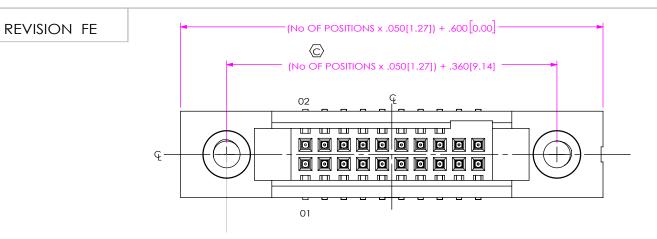
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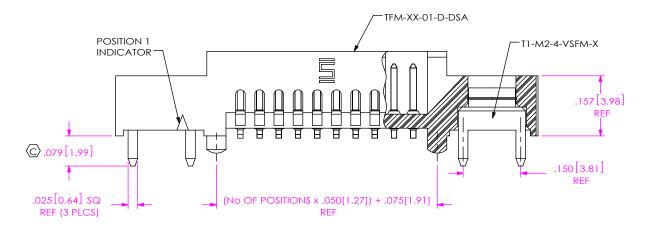
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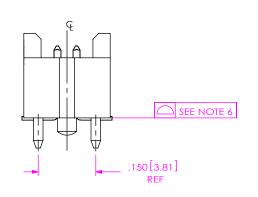
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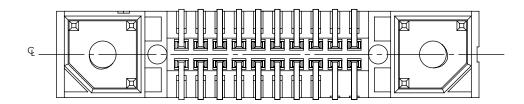


FIG 18
-DS: DUAL SCREW DOWN
TFM-110-02-XXX-D-DS SHOWN
DIFFERENT AS SHOWN, OTHERWISE SAME AS FIG 1

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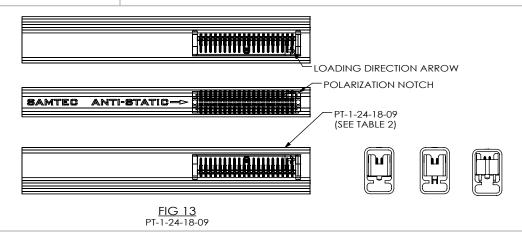
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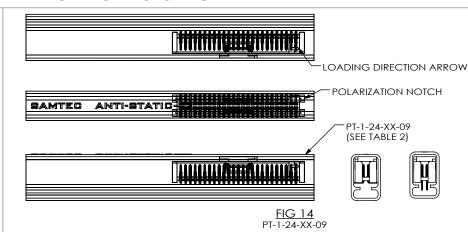
BY: garyp 11/5/20

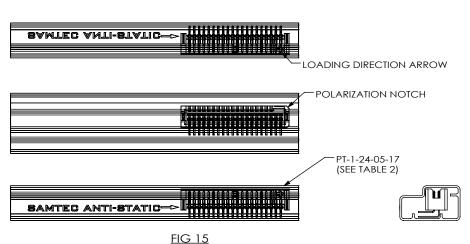
11/5/2014 SHEET 5 OF 7

# REVISION FE

# PARTS TO BE PACKAGED IN TUBES AS SHOWN







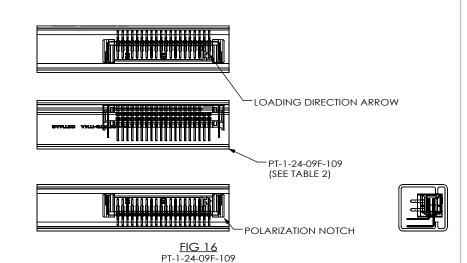


TABLE 2			
LEAD STYLE	PACKAGING TUBE	PLUG	
-RA (ALL LEAD STYLES)	PT-1-24-05-17	TP-07	
-REX	PT-1-24-09F-109	TP-29	
-01, -01-A, -01-LC, -01-WT, -01-A-K, -02, -02-A, -02-A-K, -02-LC, -02-SN	PT-FTSH002-DV-A-P-M	TP-03	
-12 (ALL OPTIONS), -22-K, -22, -22-A, -22-A-K, -22-LC, -22-LC-K	PT-1-24-04-09	TP-07	
-02-A-P, -02-K, -02-LC-K, -02-LC-P, -02-P, -02-WT, -02-WT-K			
-01-K, -01-LC-P, -01-A-P, -01-WT-P, -01-WT-K, -11, -11-A, -11-LC, -11-K, -11-LC-K, -11-A-K	A-P, -01-WT-P, -01-WT-K, -11, -11-A, -11-LC, -11-K, -11-LC-K, -11-A-K		
-03 (ALL OPTIONS)	PT-1-24-18-09	TP-09	
-13, -13-A, -13-LC, -13-K, -13-LC-K, -13-A-K			
-01-DS, -02-DS			
-31-A-K, -31-A-P, -31-LC-P, -31-P, -32, -32-K, -32-A, -32-A-K,	PT-1-24-02-09	TD 07	
-32-A-P, -32-LC-K, -32-LC-P, -32-P, -32-LC	F 1-1-24-02-09	TP-07	
-31, -21-P, -22-P, -31-LC, -21-A-P, -21-LC-P, -22-LC-P, -22-A-P, -31-A,			
-13-P, -13-LC-P, -13-A-P, -21, -23, -23-P, -23-A-P,	PT-1-24-05-09	TP-07	
-11-P, -11-LC-P, -11-A-P, -21-K, -21-A, -21-LC, -21-A-K, -21-LC-K,	C-P, -11-A-P, -21-K, -21-A, -21-LC, -21-A-K, -21-LC-K, PT-1-24-20-09		
-23-K, -23-A, -23-A-K, -23-LC, -23-LC-K	7 - 1-1-24-20-09	TP-07	

PT-1-24-05-17

NOTE:

PARTS TO BE PACKAGED WITH THE LOADING DIRECTION ARROW POINTED IN SAME DIRECTION AS THE ARROW ON TUBE.

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.050 X .050 TERMINAL STRIP

TFM-1XX-XX-XXX-D-XXX

BY: garyp 11/5/2014

SHEET 6 OF 7

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TABLE 1									
LEAD STYLE	BODY	"A"	TERMINAL 1	TERMINAL 2	"C"	"D"	"E"	"J"	"K"
-01	TFM-XX-D-01-XX	.2200 [5.588]	T-1R16-01-XX-2	N/A	.428 [10.87]	.131 [3.33]	.303 [7.70]	.078 [1.98]	N/A
-11	TFM-XX-D-02-XX	.2900 [7.366]	T-1R20-03-XX	NA	.645 [16.38]	.139 [3.53]	.375 [9.53]	.080 [2.03]	N/A
-21	TFM-XX-D-03-XX	.3600 [9.144]	T-1R20-04-XX	N/A	.645 [16.38]	.139 [3.53]	N/A	.080 [2.03]	N/A
-31	TFM-XX-D-04-XX	.4350 [11.049]	T-1R20-02-XX	WA	.645 [16.38]	.139 [3.53]	.520 [13.21]	.080 [2.03]	N/A
-02	TFM-XX-D-01-XX	.2200 [5.588]	T-1R16-01-XX-2	NA	.428 [10.87]	.131 [3.33]	.231 [5.87]	ÑΑ	.226 [5.74]
-12	TFM-XX-D-02-XX	.2900 [7.366]	T-1R20-03-XX	NA	.645 [16.38]	.139 [3.53]	.301 [7.65]	N/A	.296 [7.52]
-22	TFM-XX-D-03-XX	.3600 [9.144]	T-1R20-04-XX	WA	.645 [16.38]	.139 [3.53]	.371 [9.42]	NΑ	.366 [9.30]
-32	TFM-XX-D-04-XX	.4350 [11.049]	T-1R20-02-XX	NA	.645 [16.38]	.139 [3.53]	.446 [11.33]	N/A	.441 [11.20]
-01-RA	TFM-XX-D-01-XX	.2200 [5.588]	T-1R16-02-XX	T-1R16-03-XX	N/A	.142 [3.59]	N/A	NΑ	N/A
-01-RE1	TFM-XX-D-01-RE	.2400 [6.096]	T-1R16-06-XX	T-1R16-07-XX	N/A	.139 [3.52]	N/A	NΑ	N/A
-01-RE2	TFM-XX-D-01-RE	.2400 [6.096]	T-1R16-08-XX	T-1R16-09-XX	N/A	.139 [3.52]	N/A	NA	N/A
-03	TFM-XX-D-01-XX	.2200 [5.588]	T-1R16-10-XX	NA	.645 [16.38]	.139 [3.53]	.336 [8.53]	.111 [2.82]	N/A
-13	TFM-XX-D-02-XX	.2900 [7.366]	T-1R20-05-XX	NA	.645 [16.38]	.139 [3.53]	.406 [10.31]	.111 [2.82]	N/A
-23	TFM-XX-D-03-XX	.3600 [9.144]	T-1R20-06-XX	NA	.645 [16.38]	.139 [3.53]	.476 [12.09]	.111 [2.82]	N/A

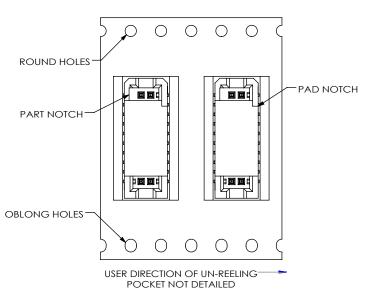
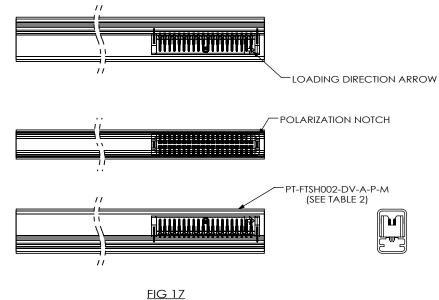


FIG 4 -TR: TAPE AND REEL



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DESCRIPTION:

.050 X .050 TERMINAL STRIP

DWG. NO.

TFM-1XX-XX-XXX-D-XXX

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