

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0082285531](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") Pitch Round Conductor Flat Cable - 28 AWG (7 x 36) Stranded Topcoat, 31 Circuits, Reel 30.48m (100.0' ) Length

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR61126  
 UL E61522

**General**

Product Family Cable  
 Series [40158](#)  
 Crimp Quality Equipment Yes  
 Geographic Area Asia  
 Product Name Ribbon

**Physical**

Cable Length 30.48m (100.0' )  
 Circuits (Loaded) 31  
 Circuits (maximum) 31  
 Insulation PVC  
 Packaging Type Reel  
 Pitch - Term. Interface (in) 0.050 In  
 Pitch - Term. Interface (mm) 1.27 mm  
 Temperature Range - Operating -20°C to +105°C  
 Wire Size AWG 28  
 Wire/Cable Type (7x36) Stranded, Topcoat

**Electrical**

Current - Maximum per Contact N/A  
 Voltage - Maximum 300V

**Material Info**

Old Part Number 40158-31-100B

**Reference - Drawing Numbers**

Sales Drawing SD-40158-001



**EU RoHS**

**Compliance Status**

**Not Reviewed**

**REACH SVHC**

**Not Reviewed**

**Halogen-Free**

**Status**

**Not Reviewed**

**China RoHS**

**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

**Search Parts in this Series**

[40158Series](#)

**Use With**

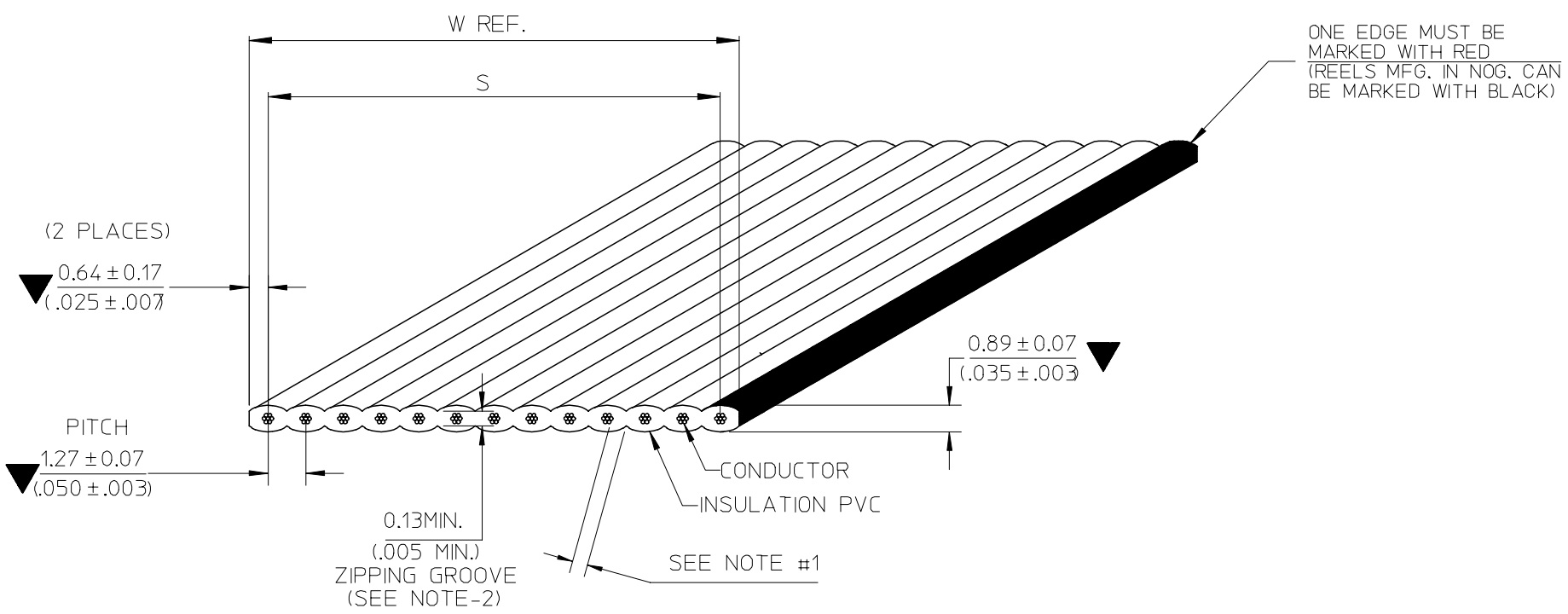
[70121](#) MX-50™ Slimline Ribbon Cable.  
[90584](#) Picoflex® PF-50 IDT Receptacle

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

7 6 5 4 3 2 1

E  
D  
C  
B  
A

E  
D  
C  
B  
A



- NOTE :
1. THE CABLE SHALL HAVE A MINIMUM OF 0.178mm. (.007") THICKNESS INSULATION AT ANY POINT
  2. RIP TEST:
    - THE 0.13mm. (.005") ZIPPING GROOVE SHALL BE CAPABLE OF BEING RIPPED BY HAND WITHIN THE RECESS, WITHOUT EXPOSING THE ADJACENT CONDUCTORS
  3. RoHS AND LEAD FREE COMPLIANT
  4. SPECIAL REQUIREMENT: N/A

B	E-07-0748	B <sub>2</sub> : ADD NON-OPERATING TEMP. B <sub>4</sub> : ADD SOLDERING CONDITION	07/10/02
A	N/A	NEW RELEASE	06/07/12
REV. HISTORY	EC NO.	DETAIL	DATE

SEE CHANGE DETAIL  
EC NO: THL2008-0015  
DRWN: CPANSAKHOM 2007/11/28  
CHKD: DNARINTARA 2007/11/29  
APPR: SVIRATJAPOL 2007/12/04

DESCRIPTION

QUALITY SYMBOLS

▽=3

▽=0

	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± ---	± ---
1 PLACE	± ---	± ---
ANGULAR ± ---°		

DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONS

DIMENSION STYLE	
MM/IN	SCALE NTS
DRAWN BY CPANSAKHOM	DATE 2006/07/12
CHECKED BY PMEECHAI	DATE 2006/07/12
APPROVED BY SVIRATJAPOL	DATE 2006/07/12
MATERIAL NO. SEE CHART	DOCUMENT NO. SD-40158-001

DESIGN UNITS	THIRD ANGLE PROJECTION
INCH	
TITLE FCB ROUND CONDUCTOR 1.27MM(.050)CENTERS PVC. 28AWG STR TOPCOATED	
MOLEX INCORPORATED	
SHEET NO. 1 OF 3	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SPECIFICATIONS

PHYSICAL

CONDUCTOR SPACING ----- .127 (.050")  $\bar{C}$  TO  $\bar{C}$   
 WIRE GAUGE ----- 28 AWG(7/36) AWG, STRANDED TOPCOATED  
 INSULATION ----- P.V.C GRAY (LEAD FREE)

AGENCY

U.L. STYLE NO. ----- 2651  
 TEMPERATURE RATING ----- -20°C TO 105°C  
 VOLTAGE RATING ----- 300V.MAX.  
 FLAMMABILITY RATING ----- VW-1

ELECTRICAL

CONDUCTOR RESISTANCE (D.C.) ----- 68 m OHMS/FT. MAX.  
 CHARACTERISTIC IMPEDANCE ----- 123 OHMS NOM. (GS)  
 100 OHMS NOM. (GSG)  
 CAPACITANCE ----- 9.1 pF/FT. NOM. (GS)  
 17.0 pF/FT. NOM. (GSG)  
 PROPAGATION DELAY ----- 1.4 ns/FT. NOM.  
 INSULATION RESISTANCE ----- 10M OHMS (10FT. SAMPLE)  
 DIELECTRIC WITHSTAND VOLTAGE ----- 2000 VRMS/MINUTE

GENERAL

$\triangle B_2$  NON-OPERATING TEMPERATURE ----- -20°C TO 105°C  
 FAULTS AND/OR SPLICES ----- 1/REEL MAX. 100  $\pm 3_0^3$  FT. (30.48  $\pm 0.914^4$ M.)/REEL  
 20FT. (6.096M.) MIN. LENGTH

$\triangle B_1$  SOLDERING CONDITION

SOLDER TEMPERATURE ----- 260°C. MAX.  
 SOLDERING TIME ----- 3 SECOND. MAX.  
 INSULATION SHRINK ----- 2MM. NOM

SEE CHANGE DETAIL EC NO: THL2008-0015 DRWN: CPANSAKHOM 2007/11/28 CHKD: DNARINTARA 2007/11/29 APPR: SVIRATJAPOL 2007/12/04	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
		$\blacktriangledown =$ $\triangle C =$		mm	INCH	MM/IN		NTS	INCH			
			4 PLACES	$\pm$ ----	$\pm$ ----	DRAWN BY	DATE	TITLE				
			3 PLACES	$\pm$ ----	$\pm$ ----	CPANSAKHOM	2006/07/12	FCB ROUND CONDUCTOR 1.27MM(.050)CENTERS PVC. 28AWG STR TOPCOATED				
			2 PLACES	$\pm$ ----	$\pm$ ----	CHECKED BY	DATE	MOLEX INCORPORATED				
1 PLACE	$\pm$ ----	$\pm$ ----	ANGULAR $\pm$ ----°		APPROVED BY	DATE	DOCUMENT NO.		SHEET NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SD-40158-001		2 OF 3				
				SIZE $\triangle 4$		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

W

D

C

B

A

ENGINEERING NO.

40158-XX-XXXX

A B C D

A : CABLE 1.27mm. (.050") CENTERS 28AWG STRANDED TOPCOATED  
 B : CONDUCTOR SIZE ( AVAILABILITY 3 THROUGH 50 )  
 C : CABLE LENGTH 100FT. (30.48M)  
 D : A = INCHES  
 B = FEET

CHART A  
 DIMENSIONS MM (INCHES)

ENG. NO.	NO.OF COND.	DIMENSION S	DIM. W (REF)	SHIPPED ON 100FT. REELS	
				ENGINEERING NO.	ORDER NO.
40158-3	3	2.54±0.18 (100±.007)	3.81 (1.50)	40158-03-100B	82-28-5503
40158-4	4	3.81±0.18 (150±.007)	5.08 (2.00)	40158-04-100B	82-28-5504
40158-5	5	5.08±0.18 (200±.007)	6.35 (2.50)	40158-05-100B	82-28-5505
40158-6	6	6.35±0.18 (250±.007)	7.62 (3.00)	40158-06-100B	82-28-5506
40158-7	7	7.62±0.18 (300±.007)	8.89 (3.50)	40158-07-100B	82-28-5507
40158-8	8	8.89±0.18 (350±.007)	10.16 (4.00)	40158-08-100B	82-28-5508
40158-9	9	10.16±0.18 (400±.007)	11.43 (4.50)	40158-09-100B	82-28-5509
40158-10	10	11.43±0.18 (450±.007)	12.70 (5.00)	40158-10-100B	82-28-5510
40158-11	11	12.70±0.18 (500±.007)	13.97 (5.50)	40158-11-100B	82-28-5511
40158-12	12	13.97±0.18 (550±.007)	15.24 (6.00)	40158-12-100B	82-28-5512
40158-13	13	15.24±0.18 (600±.007)	16.51 (6.50)	40158-13-100B	82-28-5513
40158-14	14	16.51±0.18 (650±.007)	17.78 (7.00)	40158-14-100B	82-28-5514
40158-15	15	17.78±0.18 (700±.007)	19.05 (7.50)	40158-15-100B	82-28-5515
40158-16	16	19.05±0.23 (750±.009)	20.32 (8.00)	40158-16-100B	82-28-5516
40158-17	17	20.32±0.23 (800±.009)	21.59 (8.50)	40158-17-100B	82-28-5517
40158-18	18	21.59±0.23 (850±.009)	22.86 (9.00)	40158-18-100B	82-28-5518
40158-19	19	22.86±0.23 (900±.009)	24.13 (9.50)	40158-19-100B	82-28-5519
40158-20	20	24.13±0.23 (950±.009)	25.40 (1.000)	40158-20-100B	82-28-5520
40158-21	21	25.40±0.23 (1000±.009)	26.67 (1.050)	40158-21-100B	82-28-5521
40158-22	22	26.67±0.23 (1050±.009)	27.94 (1.100)	40158-22-100B	82-28-5522
40158-23	23	27.94±0.23 (1100±.009)	29.21 (1.150)	40158-23-100B	82-28-5523
40158-24	24	29.21±0.23 (1150±.009)	30.48 (1.200)	40158-24-100B	82-28-5524
40158-25	25	30.48±0.23 (1200±.009)	31.75 (1.250)	40158-25-100B	82-28-5525
40158-26	26	31.75±0.23 (1250±.009)	33.02 (1.300)	40158-26-100B	82-28-5526
40158-27	27	33.02±0.23 (1300±.009)	34.29 (1.350)	40158-27-100B	82-28-5527
40158-28	28	34.29±0.23 (1350±.009)	35.56 (1.400)	40158-28-100B	82-28-5528
40158-29	29	35.56±0.23 (1400±.009)	36.83 (1.450)	40158-29-100B	82-28-5529
40158-30	30	36.83±0.23 (1450±.009)	38.10 (1.500)	40158-30-100B	82-28-5530
40158-31	31	38.10±0.23 (1500±.009)	39.37 (1.550)	40158-31-100B	82-28-5531
40158-32	32	39.37±0.23 (1550±.009)	40.64 (1.600)	40158-32-100B	82-28-5532
40158-33	33	40.64±0.23 (1600±.009)	41.91 (1.650)	40158-33-100B	82-28-5533
40158-34	34	41.91±0.23 (1650±.009)	43.18 (1.700)	40158-34-100B	82-28-5534
40158-35	35	43.18±0.23 (1700±.009)	44.45 (1.750)	40158-35-100B	82-28-5535
40158-36	36	44.45±0.23 (1750±.009)	45.72 (1.800)	40158-36-100B	82-28-5536
40158-37	37	45.72±0.28 (1800±.011)	46.99 (1.850)	40158-37-100B	82-28-5537
40158-38	38	46.99±0.28 (1850±.011)	48.26 (1.900)	40158-38-100B	82-28-5538
40158-39	39	48.26±0.28 (1900±.011)	49.53 (1.950)	40158-39-100B	82-28-5539
40158-40	40	49.53±0.28 (1950±.011)	50.80 (2.000)	40158-40-100B	82-28-5540
40158-41	41	50.80±0.28 (2000±.011)	52.07 (2.050)	40158-41-100B	82-28-5541
40158-42	42	52.07±0.28 (2050±.011)	53.34 (2.100)	40158-42-100B	82-28-5542
40158-43	43	53.34±0.28 (2100±.011)	54.61 (2.150)	40158-43-100B	82-28-5543
40158-44	44	54.61±0.28 (2150±.011)	55.88 (2.200)	40158-44-100B	82-28-5544
40158-45	45	55.88±0.28 (2200±.011)	57.15 (2.250)	40158-45-100B	82-28-5545
40158-46	46	57.15±0.28 (2250±.011)	58.42 (2.300)	40158-46-100B	82-28-5546
40158-47	47	58.42±0.28 (2300±.011)	59.69 (2.350)	40158-47-100B	82-28-5547
40158-48	48	59.69±0.28 (2350±.011)	60.96 (2.400)	40158-48-100B	82-28-5548
40158-49	49	60.96±0.28 (2400±.011)	62.23 (2.450)	40158-49-100B	82-28-5549
40158-50	50	62.23±0.28 (2450±.011)	63.50 (2.500)	40158-50-100B	82-28-5550

THIRD ANGLE PROJECTION

DESIGN UNITS INCH

SCALE NTS

DIMENSION STYLE MM/IN

GENERAL TOLERANCES (UNLESS SPECIFIED)

QUALITY SYMBOLS

TITLE  
 FCB ROUND CONDUCTOR  
 1.27MM(.050)CENTERS PVC.  
 28AWG STR TOPCOATED

MOLEX INCORPORATED

DOCUMENT NO. SD-40158-001 SHEET NO. 3 OF 3

DRAWN BY CPANSAKHOM DATE 2006/07/12  
 CHECKED BY PREECHAI DATE 2006/07/12  
 APPROVED BY SVIRATJAPOL DATE 2006/07/12

MATERIAL NO. SEE CHART

SIZE A THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

	mm	INCH
4 PLACES	+ .004	+ .0015
3 PLACES	+ .003	+ .0010
2 PLACES	+ .002	+ .0008
1 PLACE	+ .001	+ .0005
ANGULAR ±.005°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DESCRIPTION

REV

70/12/1002 JAPOL SVIRATJAPOL  
 62/11/1002 VARA VIRAJIT  
 82/11/1002 MOHAKHANTANA  
 5100-8002 THE ON CE  
 SEE ENGINE DETAIL

6

5

4

3

2

1