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ELECTRONICS

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Jameco Part Number 1979062



# PRODUCT SPECIFICATION

## PRODUCT SPECIFICATION FOR TOP ENTRY MODULAR JACKS

### 1.0 SCOPE

This specification covers the performance requirements of the MOLEX Top Entry Modular Telephone Jack. Where applicable, tests are in accordance with, or in Excess of, all the requirements specified in REA Bulletin 345-81, PE-76- specification for Modular Telephone set. Other applicable documents are FFC rules and regulations part 68: Connection of terminal equipment to the telephone network.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 Product Name and Part Number

MOLEX Top Entry Modular Jacks provide a means of accepting the modular plugs according to FFC Part 68. These modular jacks are intended for use with PC Boards 1.57mm (0.62") thick.

Both Jacks are available in 8, 6 or 4 circuit sizes, standard or SMT version. The 6 circuit size can be loaded with either 6 or 4 contacts.

#### 2.2 Materials, Plating and Markings

See the appropriate sales drawings for information on materials, platings and markings.

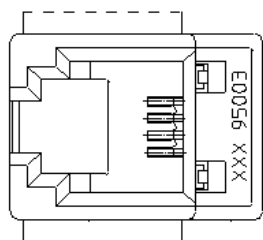
### 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS:

See the sales drawings and the other sections of this specification for the necessary referenced documents and specifications.

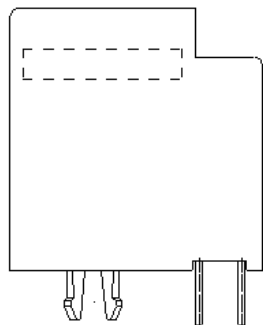
8/24/2007RE <b>B</b>	<u>ECR/ECN INFORMATION:</u> <b>EC No: E2008-0076</b> <b>DATE: 2007/08/21</b>	<u>TITLE:</u> <b>PRODUCT SPECIFICATION FOR TOP ENTRY MODULAR JACKS 95503 AND 9522 SERIES</b>	<u>SHEET No.</u> <b>1 of 7</b>
<u>DOCUMENT NUMBER:</u> <b>PS-95503-001</b>	<u>CREATED / REVISED BY:</u> <b>D.Byrnes</b>	<u>CHECKED BY:</u> <b>E.o.Mahony</b>	<u>APPROVED BY:</u> <b>E.O.Mahony</b>



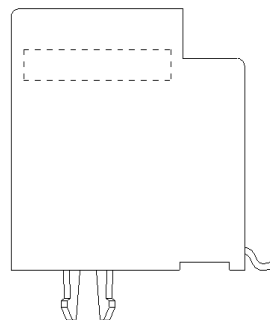
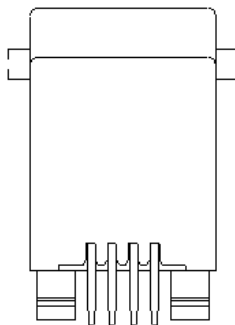
# PRODUCT SPECIFICATION



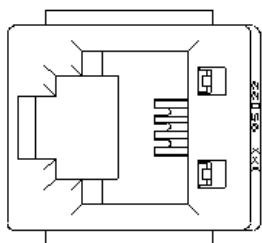
**95503**



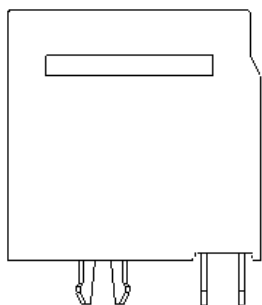
STANDARD VERSION



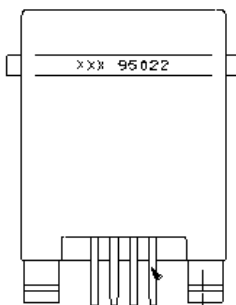
S.M.T. VERSION



**95522**



STANDARD VERSION



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<u>DOCUMENT NUMBER:</u> <b>PS-95503-001</b>	<u>CREATED / REVISED BY:</u> <b>D.Byrnes</b>	<u>CHECKED BY:</u> <b>E.o.Mahony</b>	<u>APPROVED BY:</u> <b>E.O.Mahony</b>



# PRODUCT SPECIFICATION

## 4.0 RATINGS:

**4.1 Voltage :** 125 V.D.C.

**4.2 Current :** 1.5 Amp

**4.3 Temperature :**

Operating : -40°C to +80°C

Non operating : -40°C to +80°C

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# PRODUCT SPECIFICATION

## 5.0 PERFORMANCE

### 5.1 Electrical Performance

ITEM	TEST CONDITION	REQUIREMENT
Contact Resistance	Test at 100mA max current, 50 mV max Open circuit voltage (see pg 7/7).	Initial 20 milli $\Omega$ max Final 20 milli $\Omega$ max
Dielectric	Per MIL-STD-202 E strength Method 301.	1000 Vac r.m.s. 1 minute hold.
Insulation Resistance.	Per MIL-STD-202 E Method 302.	500 Mega $\Omega$ 500 V a.c.

### 5.2 MECHANICAL

ITEM	TEST CONDITION	REQUIREMENT
DURABILITY	Mating and unmating cycles at 20 cycles/minute max	1000 cycles meets Contact Resistance Test check every 1000 cycles
LIFE	Test after Temp/Humidity cycling	200 cycles meets contact resistance test.
VIBRATION	5-55Hz in 60 sec cycles for 2 hours on each axis per MIL-STD-202, method 201	Meets contact resistance test, Shall remain mated and show no sign of damage.
SOLDERABILITY	PER IEC 512-16 Test 12A 168-2-20 Test TA Method 1 Solder Bath 260+0/- 5°C Immersion Time 2,0 +/- 0.5 s	The Dipped surface shall be covered with a smooth and bright solder coating. Some imperfections are acceptable but NOT concentrated in the same area.

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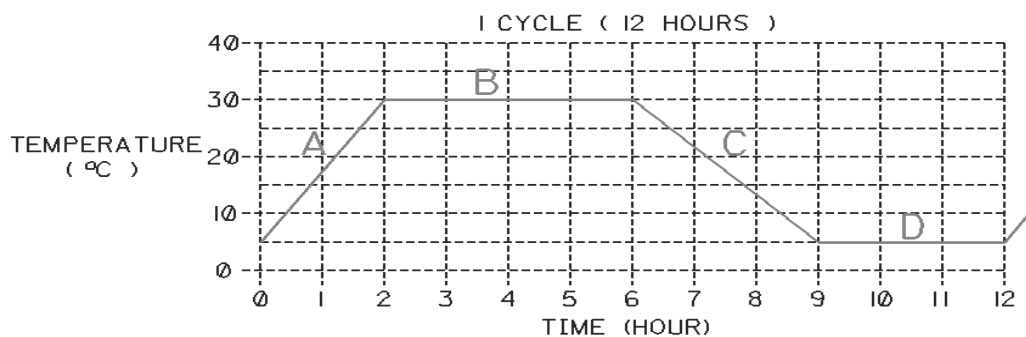
# PRODUCT SPECIFICATION

## 5.3 Environmental

ITEM	TEST CONDITION	REQUIREMENT
TEMPERATURE HUMIDITY CYCLING	Per Para 4.22 of REA PE-76 see 3.4.1	Shall meet Insulation Resistance Dielectric Strength and contact Resistance tests.

## 5.4 Environmental Performance

ITEM	TEST CONDITION	REQUIREMENT
Humidity (Cyclic)	Mate connectors exposed for 10 cycles at 90 to 95% relative humidity with a transition time of 2 hours when increasing and of 3 hours when decreasing the temperature.  Temperature      Duration +5°C              3 hours +30°C              4 hours	Appearance: No damage Dielectric withstanding voltage: 500 Vac rms, 60 Hz across any combination of terminals applied for 5 seconds.



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DOCUMENT NUMBER: <b>PS-95503-001</b>	CREATED / REVISED BY: <b>D.Byrnes</b>	CHECKED BY: <b>E.o.Mahony</b>	APPROVED BY: <b>E.O.Mahony</b>



# PRODUCT SPECIFICATION

## 5.4 TEST SEQUENCE

	TEST GROUP		
	I	II	III
INSPECTION OF PRODUCT	1	1	1
CONTACT RESISTANCE	6	2.4	2.4
DIELECTRIC STRENGTH	3		
INSULATION RESISTANCE	4		
DURABILITY		3	
LIFE	5		
VIBRATION			3
TEMPERATURE/HUMIDITY CYCLING	2		

NB: NUMBERS DENOTE THE ORDER IN WHICH THE TESTS ARE PERFORMED.

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<u>DOCUMENT NUMBER:</u> <b>PS-95503-001</b>	<u>CREATED / REVISED BY:</u> <b>D.Byrnes</b>	<u>CHECKED BY:</u> <b>E.o.Mahony</b>	<u>APPROVED BY:</u> <b>E.O.Mahony</b>



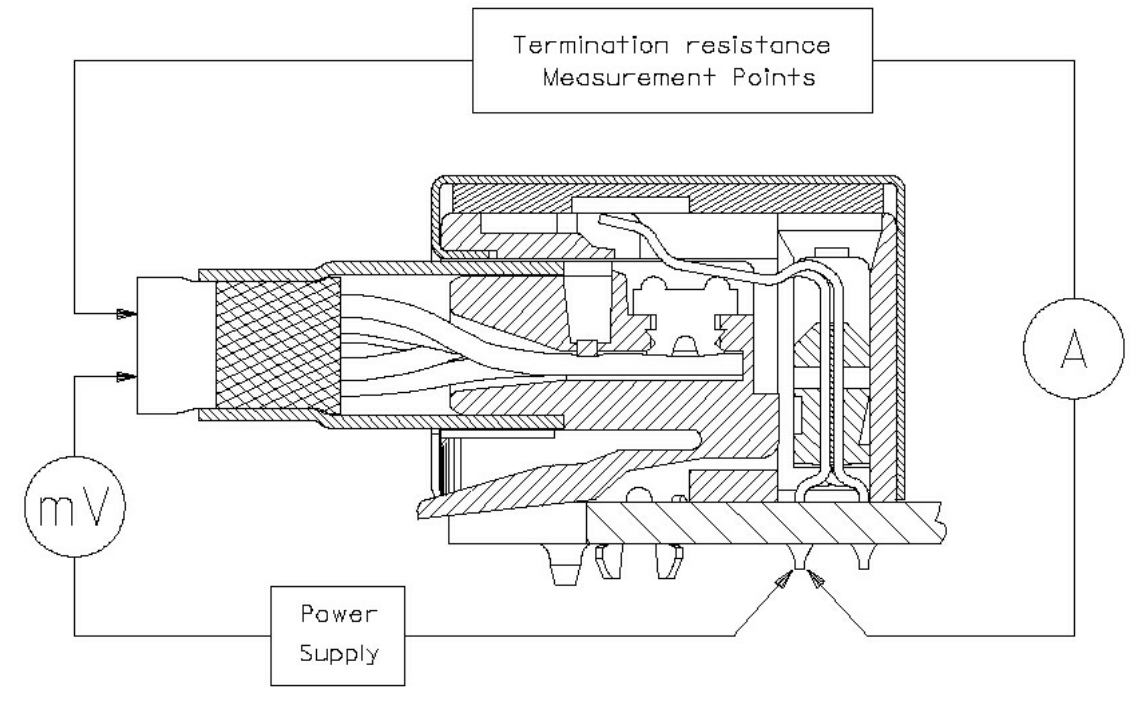
# PRODUCT SPECIFICATION

## 6.0 PACKAGING

Parts should be packaged to protect against damage during handling, transit and storage.  
(Refer to sales drawings)

## 7.0 GAGES AND FIXTURE

### Termination Resistance Measurement Points



System resistance equals millivolt drop (mV) divided by test current (A)  
(Conductor resistance will be deducted from measurement).

## 8.0 QUALITY ASSURANCE PROVISIONS

The applicable Molex inspection plan specifies the sampling acceptable quality level to be used.  
Dimensional and functional requirements shall be in accordance with applicable product drawings and this specification.

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B	EC No: E2008-0076 DATE: 2007/08/21			7 of 7
DOCUMENT NUMBER:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:	
PS-95503-001	D.Byrnes	E.o.Mahony	E.O.Mahony	



# NOTES :

## 1- MATERIAL:

- HOUSING: LCP FIBER GLASS FILLED UL 94-V0  
COLOR BLACK.
- TERMINAL: TIN BRASS.

## PLATING 2:

POST PLATE (0.00127-0.00152)/.000050-.000060 GOLD IN  
CONTACT AREA. (0.00190)/.000075 MIN. PURE TIN IN TAIL  
AREA BOTH OVER (0.00127)/.000050 MIN. NICKEL OVERALL.

## PLATING 7: ONLY ON REQUEST

POST PLATE 0.00005/.000002 MIN GOLD OVER 0.000763  
.000030 MIN PALLADIUM NICKEL IN CONTACT AREA.  
0.00190/.000075 MIN PURE TIN IN TAIL AREA. BOTH  
OVER 0.00127/.000050 MIN NICKEL OVERALL:

2- JACK FOR MATING WITH F.C.C. 68 PLUGS  
90075 MOLEX SERIES.

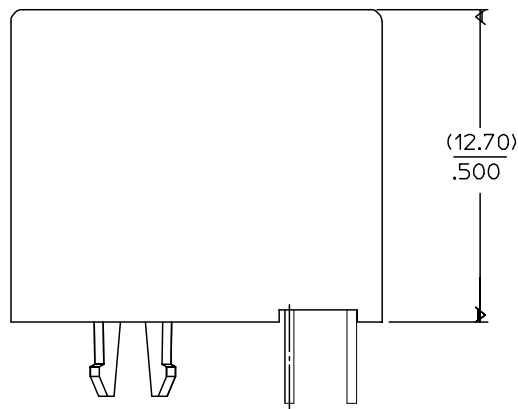
3- PRODUCT SPECIFICATION PS-95503-001

4- PACKAGING SPECIFICATION PK-95003:

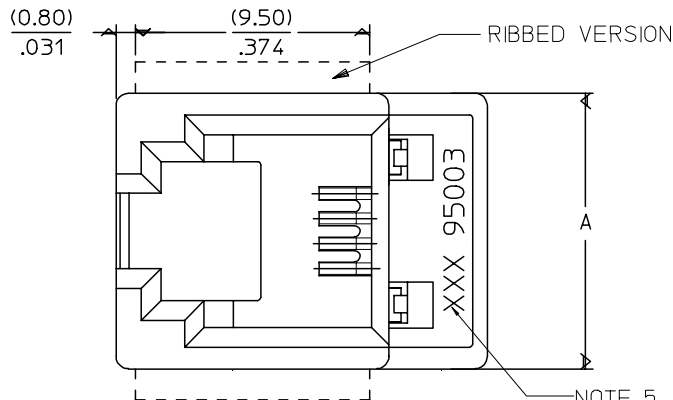
- STANDARD PACKAGING SHEET 1.
- TUBE PACKAGING FOR SMT VERSION SHEET 2.
- TUBE PACKAGING FOR THROUGH HOLE VERSION  
SHEET 3.

5- MANUFACTURING I.D. CAN BE MXF, MG OR MXL

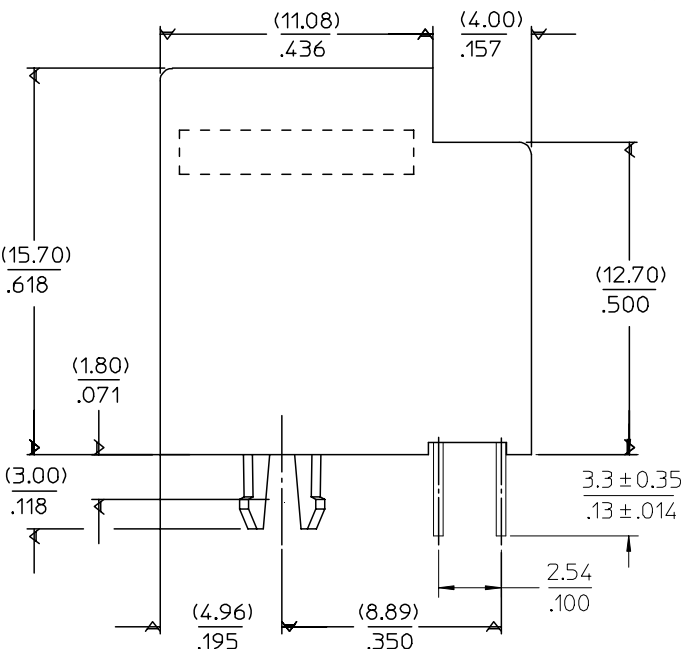
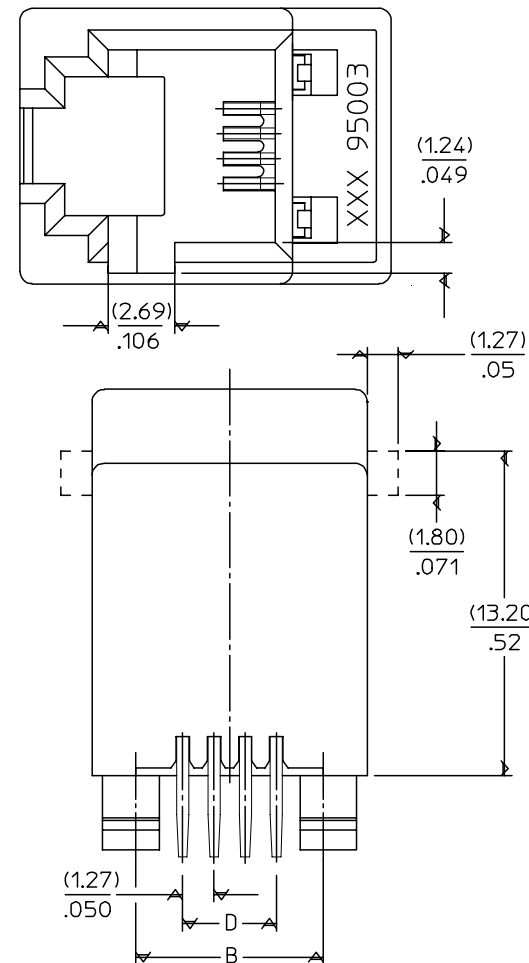
TYPE	POS. 4		POS. 6		POS. 8
	4 CKTS.	4 CKTS.	6 CKTS.	6 CKTS.	8 CKTS.
A	(11.18) / .440	(13.21) / .520	(13.21) / .520	(15.24) / .600	
B	(7.62) / .300	(10.16) / .400	(10.16) / .400	(11.43) / .450	
D	(3.81) / .150	(3.81) / .150	(6.35) / .250	(8.89) / .350	



SHORT VERSION



OPTIONAL KEYING



ADDED TABLE EC NO: E2008-0267 DRWN:DBYRNES CHKD: APPR:EOMAHONY	2007/11/27 2007/11/28 2007/11/28	DESCRIPTION	QUALITY SYMBOLS  ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE 5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE  LOW PROFILE TOP ENTRY JACK (THROUGH HOLE VERSION)  MOLEX INCORPORATED
				mm	INCH	DRAWN BY TMARTIN	DATE 2005/06/15				
				4 PLACES ± ---	± ---	CHECKED BY	DATE				
				3 PLACES ± ---	± .006	FCARABETTA	2005/06/15				
				2 PLACES ± 0.15	± .010	APPROVED BY	DATE				
1 PLACE ± 0.25	± ---	KNOLLER	2005/06/15								
		ANGULAR ± .5 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SEE SHT 4.5		SD-95503-003		1 OF 5			
D		REV		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

F

F

TYPE DIM.	POS. 4	POS. 6		POS. 8
	4 CKTS.	4 CKTS.	6 CKTS.	8 CKTS.
F $(\pm 0.05) / \pm .002$	(7.62) / .300	(10.16) / .400	(10.16) / .400	(11.43) / .450
G $(\pm 0.05) / \pm .002$	(3.81) / .150	(3.81) / .150	(6.35) / .250	(8.89) / .350

E

E

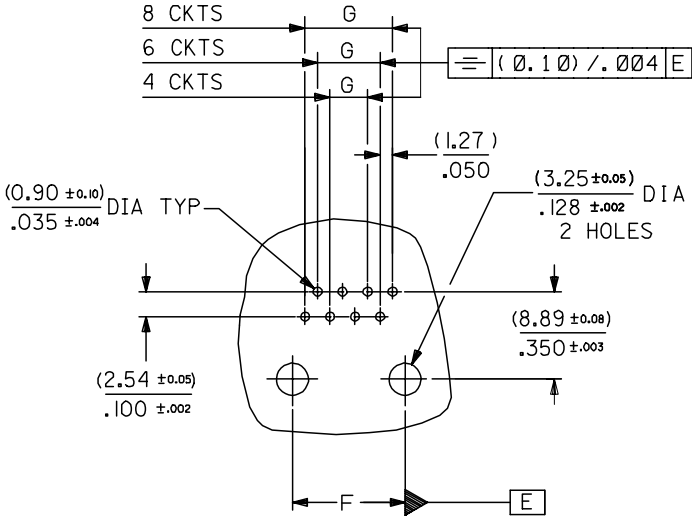
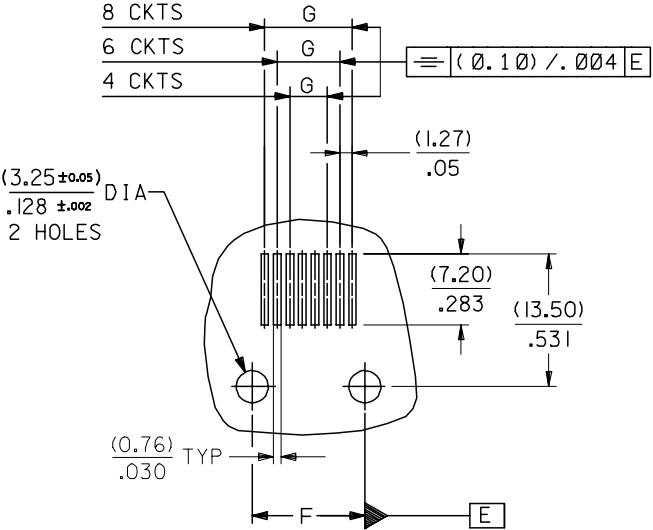
P.C.B. MOUNTING PATTERNS - SEE FROM COMPONENT SIDE

FOR SMT JACK (SURFACE MOUNT)

FOR STANDARD JACK (THROUGH HOLE)

D

D



B

B

A

A

CHANGED TABLE	
EC NO: E2008-0267	2007/11/27
DRWN:DBYRNES	2007/11/28
CHKD:	
APPR:EOMAHONY	2007/11/28
REV	DESCRIPTION

QUALITY SYMBOLS
▽=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	MM
4 PLACES	± .005
3 PLACES	± .006
2 PLACES	± 0.15
1 PLACE	± 0.25
ANGULAR ± .5 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE MM/IN	
DRAWN BY	DATE
TMARTIN	2005/06/15
CHECKED BY	DATE
FCARABETTA	2005/06/15
APPROVED BY	DATE
KNOLLER	2005/06/15
MATERIAL NO.	
SEE SHT. 4, 5	
SIZE A3	

SCALE 2:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
TITLE LOW PROFILE T/E JACK		
MOLEX INCORPORATED		
DOCUMENT NO. SD-95503-003		SHEET NO. 3 OF 5
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

## F

FBA