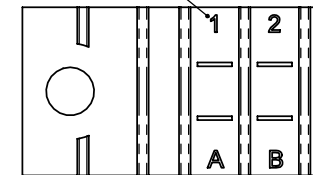
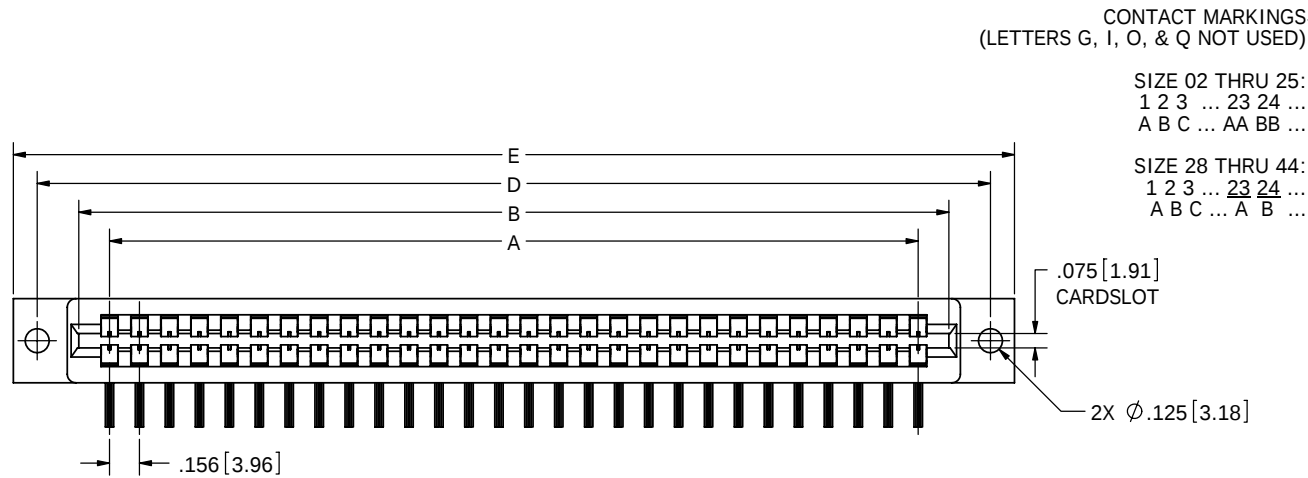
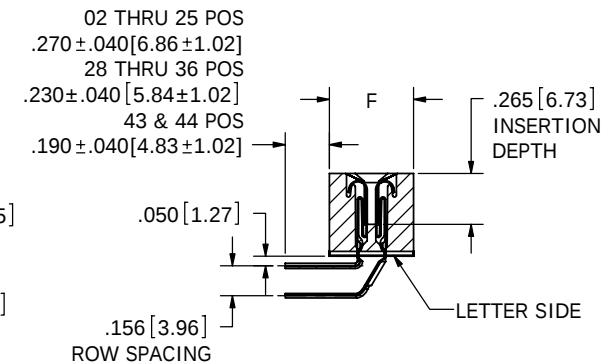
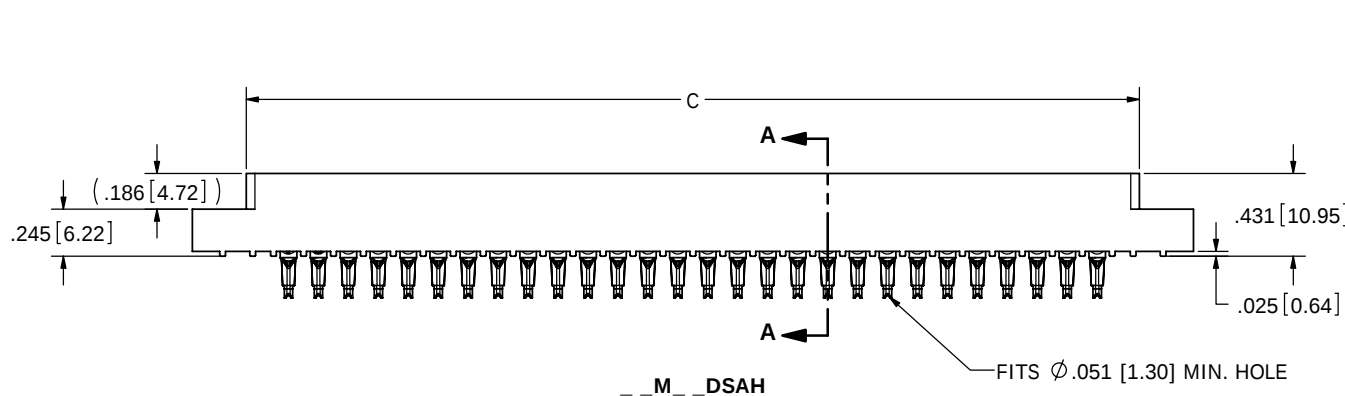


| REVISIONS |         |                                            |           |     |
|-----------|---------|--------------------------------------------|-----------|-----|
| REV.      | ECO. NO | DESCRIPTION                                | DATE      | BY  |
| A         | 1268    | INITIAL RELEASE                            | 2/3/07    | MV  |
| B         | 1390    | ADD CURRENT RATING TO F MATERIAL           | 6/18/2007 | MNH |
| C         | 1662    | UPDATE DRAWING FORMAT & PART NUMBER CODING | 4/23/2008 | VJ  |



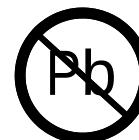
CONTACT ID  
SCALE 3:1  
(PINS OMITTED FOR CLARITY)



SECTION A-A

# NOTES:

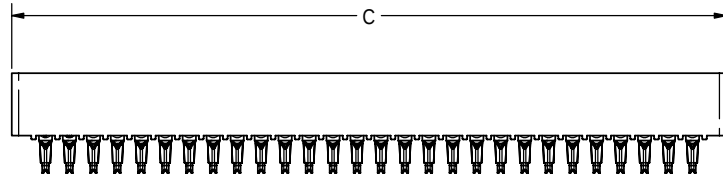
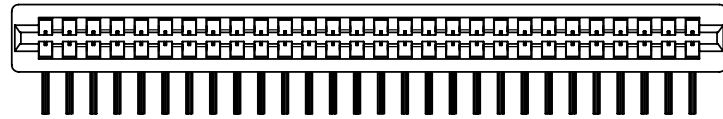
1. INSULATOR MATERIAL: SEE PART NUMBER CODING.
2. CONTACT MATERIAL: SEE PART NUMBER CODING.
3. PLATING: SEE PART NUMBER CODING.
4. TEMPERATURE: SEE PART NUMBER CODING.
5. PROCESSING TEMP: SEE PART NUMBER CODING.
6. UL FLAMMABILITY RATING: 94V-0.
7. VOLTAGE RATING: 1800 VDC MINIMUM AT SEA LEVEL.
8. CURRENT RATING: SEE PART NUMBER CODING.
9. VOLTAGE DROP: 30 MILLI VOLT AT RATED CURRENT.
10. INSULATION RESISTANCE: 5000 MEGA OHMS.
11. CONNECTOR IDENTIFICATION: THE PART SHALL BE MARKED WITH A PART NUMBER AND BARCODE.
12. BOARD THICKNESS ACCOMMODATED: .062  $\pm$  .008 [1.57  $\pm$  0.20].
13. BOARD INSERTION FORCE: 16 OZ MAX PER CONTACT PAIR WHEN USING A .062 [1.57] TEST BLADE.  
INTERNAL INSPECTION TO BE PER SULLIN'S WORK INSTRUCTION W17.3-01.
14. BOARD WITHDRAWAL FORCE: 1 OUNCE MINIMUM PER CONTACT PAIR USING .062 [1.57] PCB.



RoHS COMPLIANT

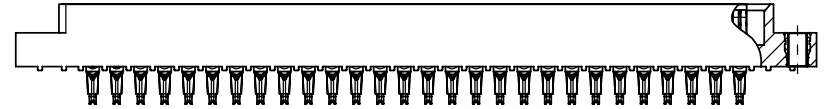
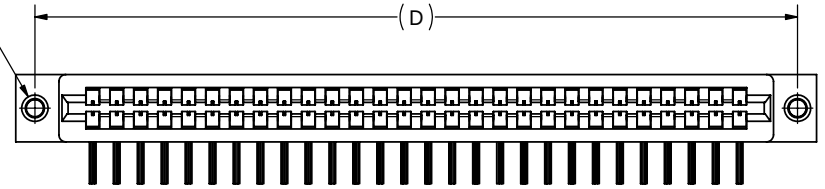
## CUSTOMER COPY

|                                                                                                                                                                                                                                                    |  |                  |  |                                        |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|--|----------------------------------------|--|--|
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES[MM]<br>TOLERANCES:<br>ANGULAR: $\pm$ 30°<br>.XX $\pm$ .02 [508]<br>XXX $\pm$ .005 [1270]<br>XXXX $\pm$ .0005 [0.127]<br>SURFACE FINISH: 63 Ra<br>REMOVE ALL BURRS AND SHARP EDGES .010 MAX |  | DATE<br>2/3/2007 |  | NAME<br>MV                             |  |  |
| THE INFORMATION HEREIN CONTAINS PROPRIETARY INFORMATION OF SULLINS ELECTRONICS AND IS NOT TO BE REPRODUCED, USED OR DISCLOSED TO OTHERS FOR ANY PURPOSE EXCEPT AS SPECIFICALLY AUTHORIZED IN WRITING BY AN OFFICER OF SULLINS ELECTRONICS.         |  |                  |  | DESCRIPTION<br>EDGE CARD, .156 CC, RAB |  |  |
| INTERPRET DIMENSIONS AND GEOMETRIC TOLERANCING PER: ANSI Y14.5M-1994                                                                                                                                                                               |  |                  |  | PART NUMBER<br>M DSA                   |  |  |
|                                                                                                                                                                                                                                                    |  |                  |  | SIZE<br>C                              |  |  |
|                                                                                                                                                                                                                                                    |  |                  |  | DWG. NO.<br>C10890                     |  |  |
|                                                                                                                                                                                                                                                    |  |                  |  | REV<br>C                               |  |  |
|                                                                                                                                                                                                                                                    |  |                  |  | SCALE: 2:1                             |  |  |
|                                                                                                                                                                                                                                                    |  |                  |  | SHEET 1 OF 3                           |  |  |



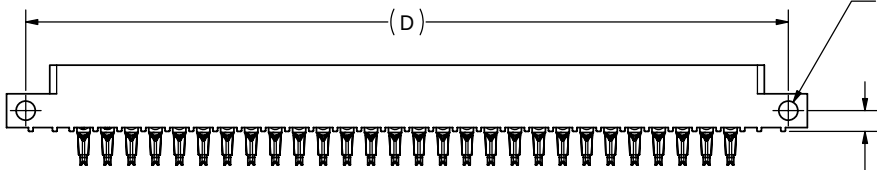
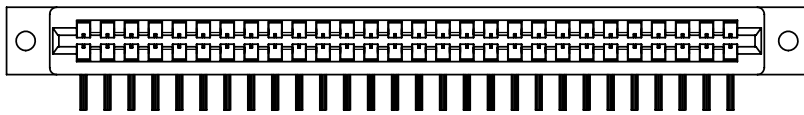
--M--DSAN

2X #4-40  
THREADED  
INSERT

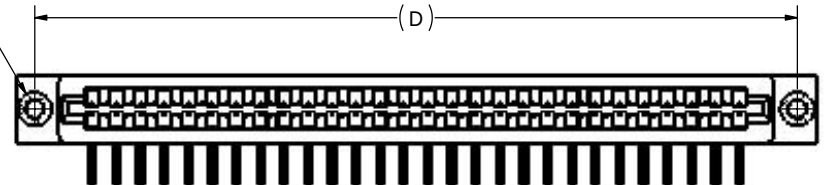


--M--DSAI

2X FLOATING BOBBIN  
 $\phi .116 [2.95]$  CLEARANCE  
FOR # 4 SCREW

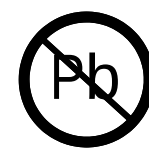


--M--DSAS

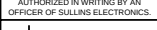


--M--DSAF

## CUSTOMER COPY



RoHS COMPLIANT

|                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                 |            |                                                                                       |                                        |          |              |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------|----------------------------------------|----------|--------------|
| UNLESS OTHERWISE SPECIFIED:<br>DIMENSIONS ARE IN INCHES[MM]<br>TOLERANCES:<br>ANGULAR: ± 30°<br>.XX± .02 [508]<br>.XXX± .005 [1270]<br>XXXX± .0005 [0127]<br>SURFACE FINISH: 63 Ra<br>REMOVE ALL BURRS AND SHARP EDGES .010 MAX<br><br>INTERPRET DIMENSIONS AND GEOMETRIC<br>TOLERANCING<br>PER: ANSI Y14.5M-1994 | DATE<br>2/3/2007                                                                                                                                                                                                                                                | NAME<br>MV |  |                                        |          |              |
|                                                                                                                                                                                                                                                                                                                   | THE INFORMATION HEREIN CONTAINS<br>PROPRIETARY INFORMATION OF<br>SULLINS ELECTRONICS AND IS NOT<br>TO BE REPRODUCED, USED OR<br>DISCLOSED TO OTHERS FOR ANY<br>PURPOSE EXCEPT AS SPECIFICALLY<br>AUTHORIZED IN WRITING BY AN<br>OFFICER OF SULLINS ELECTRONICS. |            |                                                                                       | DESCRIPTION<br>EDGE CARD, .156 CC, RAB |          |              |
|                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                 |            |                                                                                       | PART NUMBER<br>M DSA                   |          |              |
|                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                            |            |                                                                                       | SIZE DWG. NO.<br>C C10890              | REV<br>C |              |
|                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                 |            |                                                                                       | SCALE: 2:1                             |          | SHEET 2 OF 3 |
|                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                 |            |                                                                                       |                                        |          |              |

|             |                |                |        |                |        |                |        |                |        |                | Only applies for<br>PPS / PEEK<br>insulators with<br>threaded inSArts<br>or floats |                |        |                |       |
|-------------|----------------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|------------------------------------------------------------------------------------|----------------|--------|----------------|-------|
| PART NUMBER | NO. OF<br>POS. | A ± .008[0.20] |        | B ± .008[0.20] |        | C ± .015[0.38] |        | D ± .010[0.25] |        | E ± .020[0.51] |                                                                                    | E ± .020[0.51] |        | F ± .005[0.13] |       |
|             |                | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM     | IN             | MM                                                                                 | IN             | MM     | IN             | MM    |
| M02DSAN     | 2              | 0.156          | 3.96   | 0.476          | 12.09  | 0.596          | 15.14  | "N" MOUNTING   |        |                |                                                                                    |                |        | 0.325          | 8.26  |
| M03DSAN     | 3              | 0.312          | 7.92   | 0.632          | 16.05  | 0.752          | 19.10  |                |        |                |                                                                                    |                |        |                |       |
| M06DSA      | 6              | 0.780          | 19.81  | 1.100          | 27.94  | 1.220          | 30.99  | 1.533          | 38.94  | 1.782          | 45.26                                                                              | 1.882          | 47.80  |                |       |
| M08DSA      | 8              | 1.092          | 27.74  | 1.412          | 35.86  | 1.532          | 38.91  | 1.845          | 46.86  | 2.094          | 53.19                                                                              | 2.194          | 55.73  |                |       |
| M10DSA      | 10             | 1.404          | 35.66  | 1.724          | 43.79  | 1.844          | 46.84  | 2.157          | 54.79  | 2.406          | 61.11                                                                              | 2.506          | 63.65  |                |       |
| M11DSA      | 11             | 1.560          | 39.62  | 1.880          | 47.75  | 2.000          | 50.80  | 2.313          | 58.75  | 2.562          | 65.07                                                                              | 2.662          | 67.61  |                |       |
| M12DSA      | 12             | 1.716          | 43.59  | 2.036          | 51.71  | 2.156          | 54.76  | 2.469          | 62.71  | 2.718          | 69.04                                                                              | 2.818          | 71.58  |                |       |
| M15DSA      | 15             | 2.184          | 55.47  | 2.504          | 63.60  | 2.624          | 66.65  | 2.937          | 74.60  | 3.186          | 80.92                                                                              | 3.286          | 83.46  |                |       |
| M18DSA      | 18             | 2.652          | 67.36  | 2.972          | 75.49  | 3.092          | 78.54  | 3.405          | 86.49  | 3.654          | 92.81                                                                              | 3.754          | 95.35  |                |       |
| M22DSA      | 22             | 3.276          | 83.21  | 3.596          | 91.34  | 3.716          | 94.39  | 4.029          | 102.34 | 4.278          | 108.66                                                                             | 4.378          | 111.20 |                |       |
| M24DSA      | 24             | 3.588          | 91.14  | 3.908          | 99.26  | 4.028          | 102.31 | 4.341          | 110.26 | 4.590          | 116.59                                                                             | 4.690          | 119.13 | 0.438          | 11.13 |
| M25DSA      | 25             | 3.744          | 95.10  | 4.064          | 103.23 | 4.184          | 106.27 | 4.497          | 114.22 | 4.746          | 120.55                                                                             | 4.846          | 123.09 |                |       |
| M28DSA      | 28             | 4.212          | 106.98 | 4.532          | 115.11 | 4.652          | 118.16 | 4.965          | 126.11 | 5.214          | 132.44                                                                             | 5.314          | 134.98 |                |       |
| M36DSA      | 36             | 5.460          | 138.68 | 5.780          | 146.81 | 5.900          | 149.86 | 6.213          | 157.81 | 6.462          | 164.13                                                                             | 6.562          | 166.67 | 0.500          | 12.70 |
| M43DSA      | 43             | 6.552          | 166.42 | 6.872          | 174.55 | 6.992          | 177.60 | 7.305          | 185.55 | 7.554          | 191.87                                                                             | 7.654          | 194.41 |                |       |
| M44DSA      | 44             | 6.708          | 170.38 | 7.028          | 178.51 | 7.148          | 181.56 | 7.461          | 189.51 | 7.710          | 195.83                                                                             | 7.810          | 198.37 |                |       |

PART NUMBER CODING

- M - DSA -

MATERIAL (INSULATOR/CONTACT)

E = PBT/PHOSPHOR BRONZE

OPERATING TEMP: -65°C TO +125°C @ 3 AMPS PER CONTACT  
OPERATING TEMP: -65°C TO +21°C @ 5 AMPS PER CONTACT  
PROCESSING TEMP: 260°C FOR 10 SECS MAX

R = PPS/PHOSPHOR BRONZE

OPERATING TEMP: -65°C TO +125°C  
PROCESSING TEMP: 260°C FOR 120 SECS MAX  
CURRENT RATING PER CONTACT: 5 AMPS

G = PA9T/PHOSPHOR BRONZE

OPERATING TEMP: -65°C TO +125°C  
PROCESSING TEMP: 260°C FOR 120 SECS MAX  
CURRENT RATING PER CONTACT: 5 AMPS

H = PBT/BERYLLIUM COPPER

OPERATING TEMP: -65°C TO +125°C @ 3 AMPS PER CONTACT  
OPERATING TEMP: -65°C TO +105°C @ 5 AMPS PER CONTACT  
PROCESSING TEMP: 260°C FOR 10 SECS MAX

A = PPS/BERYLLIUM COPPER

OPERATING TEMP: -65°C TO +150°C  
PROCESSING TEMP: 260°C FOR 120 SECS MAX  
CURRENT RATING PER CONTACT: 5 AMPS

J = PA9T/BERYLLIUM COPPER

OPERATING TEMP: -65°C TO +150°C  
PROCESSING TEMP: 260°C FOR 120 SECS MAX  
CURRENT RATING PER CONTACT: 5 AMPS

F = PPS/SPINODAL (CONSULT FACTORY)

AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
OPERATING TEMP: -65°C TO +200°C  
PROCESSING TEMP: 260°C FOR 120 SECS MAX  
CURRENT RATING PER CONTACT: 3 AMPS

C = PPS/BERYLLIUM COPPER (CONSULT FACTORY)

AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
OPERATING TEMP: -65°C TO +200°C @ 2 AMPS PER CONTACT  
OPERATING TEMP: -65°C TO +173°C @ 3 AMPS PER CONTACT  
PROCESSING TEMP: 260°C FOR 120 SECS MAX

W = PEEK/BERYLLIUM COPPER (CONSULT FACTORY)

AVAILABLE IN OVERALL GOLD ONLY (S OR M PLATING CODE)  
OPERATING TEMP: -65°C TO +250°C  
CURRENT RATING PER CONTACT: 3 AMPS  
(CONSULT FACTORY FOR OTHER MATERIALS)

MOUNTING STYLE

H = .125" DIA. CLEARANCE HOLES (PAGE 1)  
N = NO MOUNTING EARS (PAGE 2)  
S = .125" DIA. SIDE MOUNTING (PAGE 2)  
I = #4-40 THREADED INSERT (PAGE 2)  
F = FLOATING BOBBIN (PAGE 2)

NUMBER OF POSITIONS  
(CONTACTS PER ROW)

PLATING

ALL PLATINGS ARE LEAD FREE AND HAVE .000050" NICKEL UNDERPLATE

CONTACT SURFACE

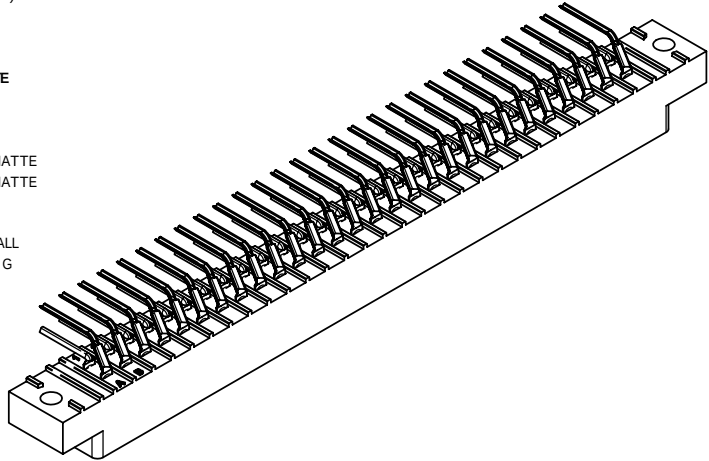
G = .000010" GOLD  
Y = .000030" GOLD  
B = .000010" GOLD  
C = .000030" GOLD  
\* E = .000100" PURE TIN, MATTE, OVERALL  
S = .000010" GOLD OVERALL  
M = .000030" GOLD

TERMINATION

.000005" GOLD  
.000005" GOLD  
.000100" PURE TIN, MATTE  
.000100" PURE TIN, MATTE

.000010" GOLD OVERALL

\*\* OVERALL TIN ONLY AVAILABLE ON MATERIAL CODES E, R AND G



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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES[MM]  
TOLERANCES:  
ANGULAR: ± 30°  
.XX±.02 [508]  
.XXX±.005 [127]  
XXXX±.0005 [0.127]  
SURFACE FINISH: 63 Ra  
REMOVE ALL BURRS AND SHARP EDGES .010 MAX

INTERPRET DIMENSIONS AND GEOMETRIC  
TOLERANCING  
PER: ANSI Y14.5M-1994

| DRAWN                                                                                                                                                                                                                                                           |  | DATE | NAME |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|------|
| 2/3/2007                                                                                                                                                                                                                                                        |  |      | MV   |
| THE INFORMATION HEREIN CONTAINS<br>PROPRIETARY INFORMATION OF<br>SULLINS ELECTRONICS AND IS NOT<br>TO BE REPRODUCED, USED OR<br>DISCLOSED TO OTHERS FOR ANY<br>PURPOSE EXCEPT AS SPECIFICALLY<br>AUTHORIZED IN WRITING BY AN<br>OFFICER OF SULLINS ELECTRONICS. |  |      |      |
|                                                                                                                                                                                                                                                                 |  |      |      |

|                         |  |               |  |
|-------------------------|--|---------------|--|
|                         |  | DESCRIPTION   |  |
| EDGE CARD, .156 CC, RAB |  | PART NUMBER   |  |
| M DSA                   |  | SIZE DWG. NO. |  |
| C                       |  | C10890        |  |
| SCALE: 2:1              |  | REV           |  |
|                         |  | C             |  |
|                         |  | SHEET 3 OF 3  |  |