

3M

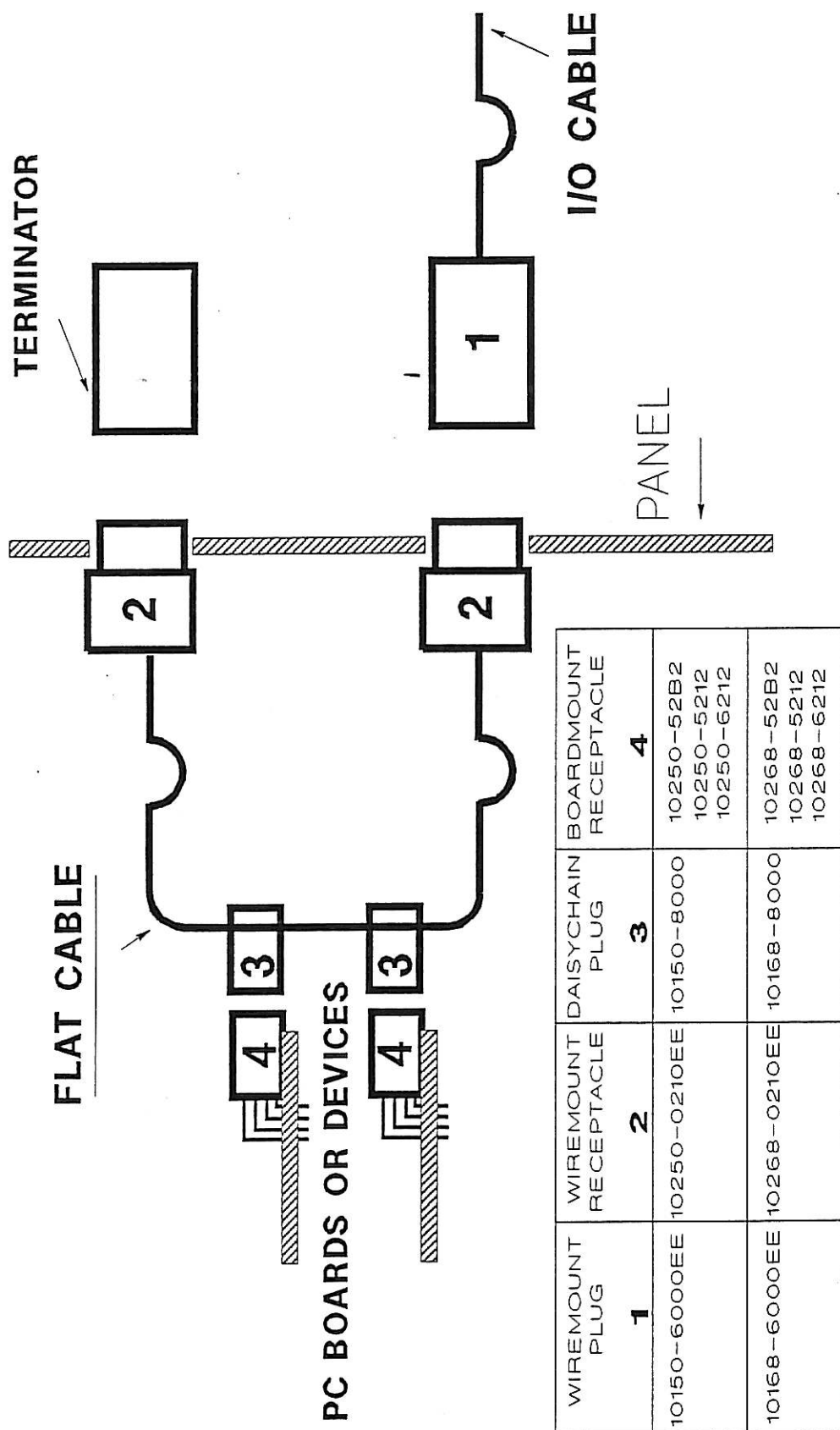
HIGH DENSITY .050"

"D" RIBBON STYLE

INTERCONNECT SYSTEM

HIGH DENSITY CONNECTOR DESIGN CONSIDERATIONS

- * MASS TERMINATION - IDC RELIABILITY**
- * WIPING INTERFACE DURABILITY / RELIABILITY**
- * PROTECTION OF CONTACTS**
- * ASSEMBLY TO PC BOARD**
- * ACCEPTANCE OF WIDE RANGE OF CABLE TYPES**
- * SHIELDING - PHYSICAL / ELECTRICAL**
- * DAISYCHAIN CAPABILITY**
- * COMPACT DESIGN**

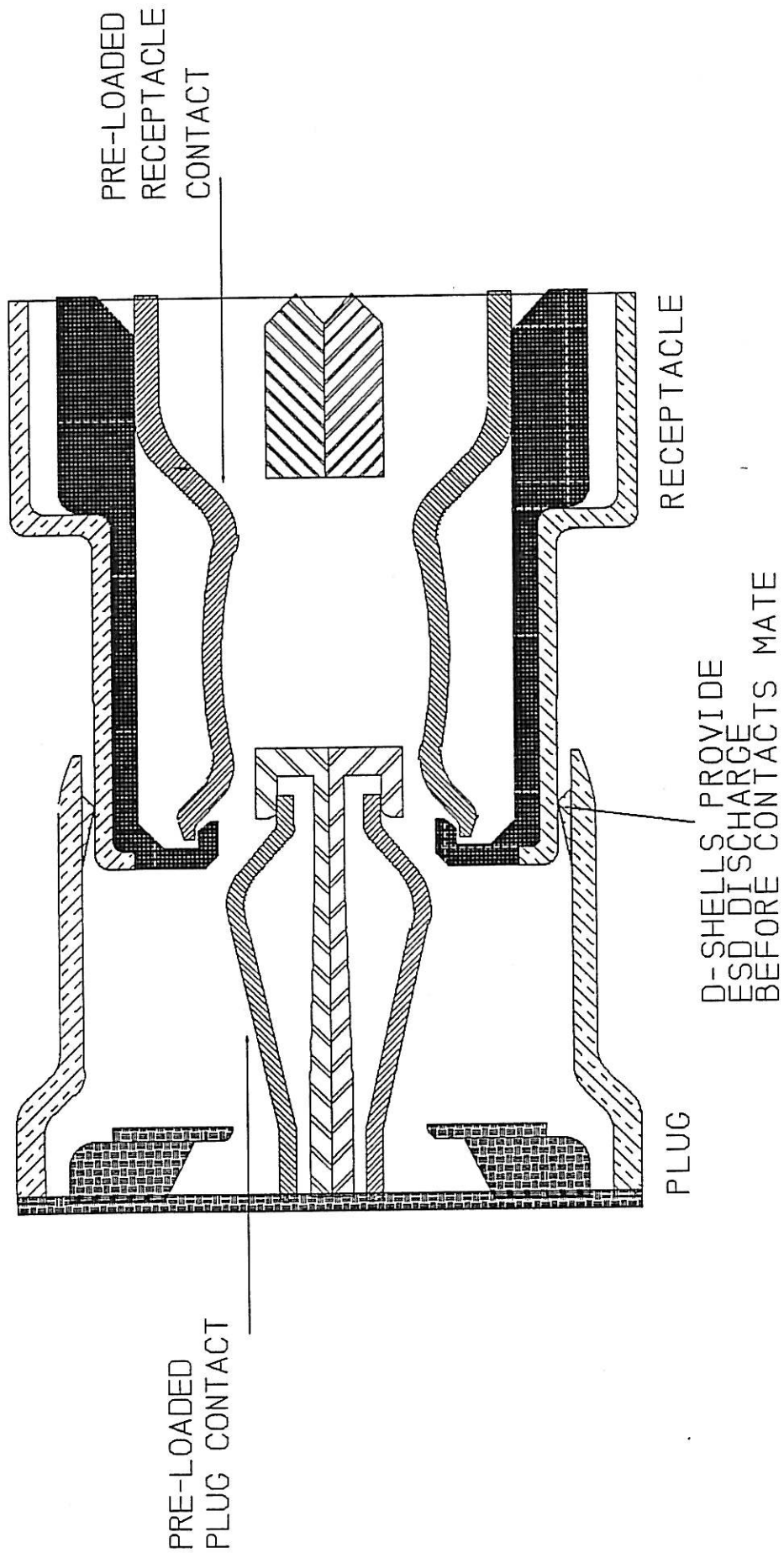


PROPOSED SCSI SOLUTION

3M Mini Delta Ribbon Complete I/O Cable System

3M INTERCONNECT SYSTEMS

3M MDR MATING INTERFACE



TEST RESULTS

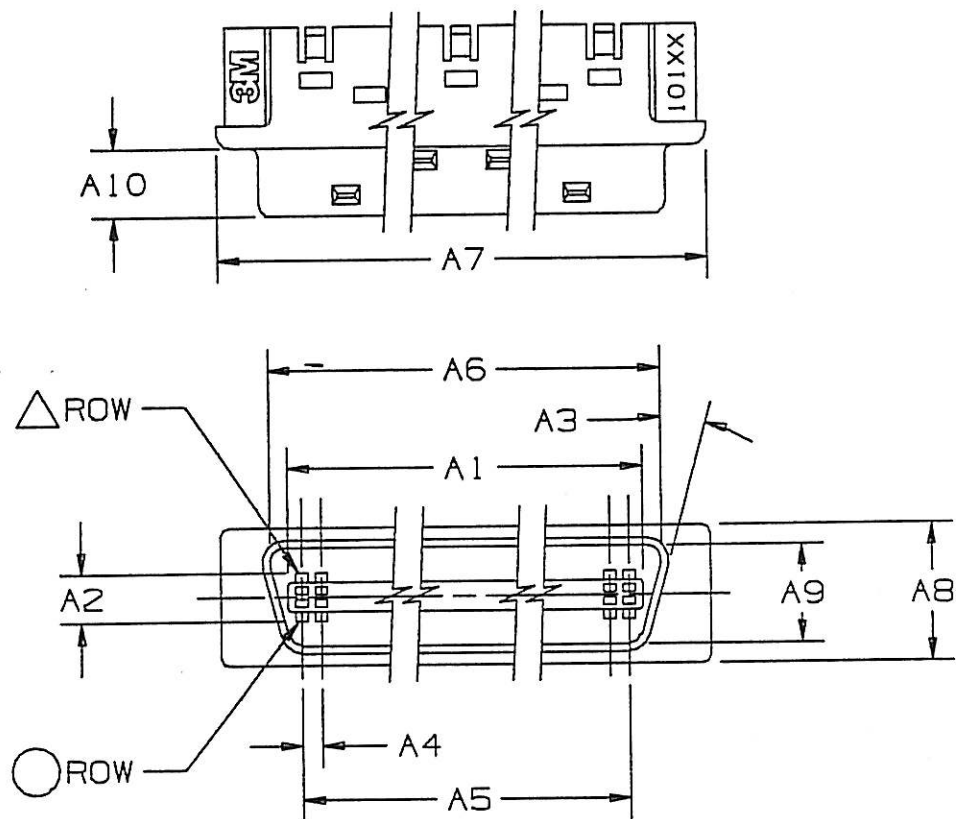
3M MDR

(HIGH TEMPERATURE PLASTIC SOCKET)

SAMPLE SIZE: 400 MATED PAIR CONTACTS

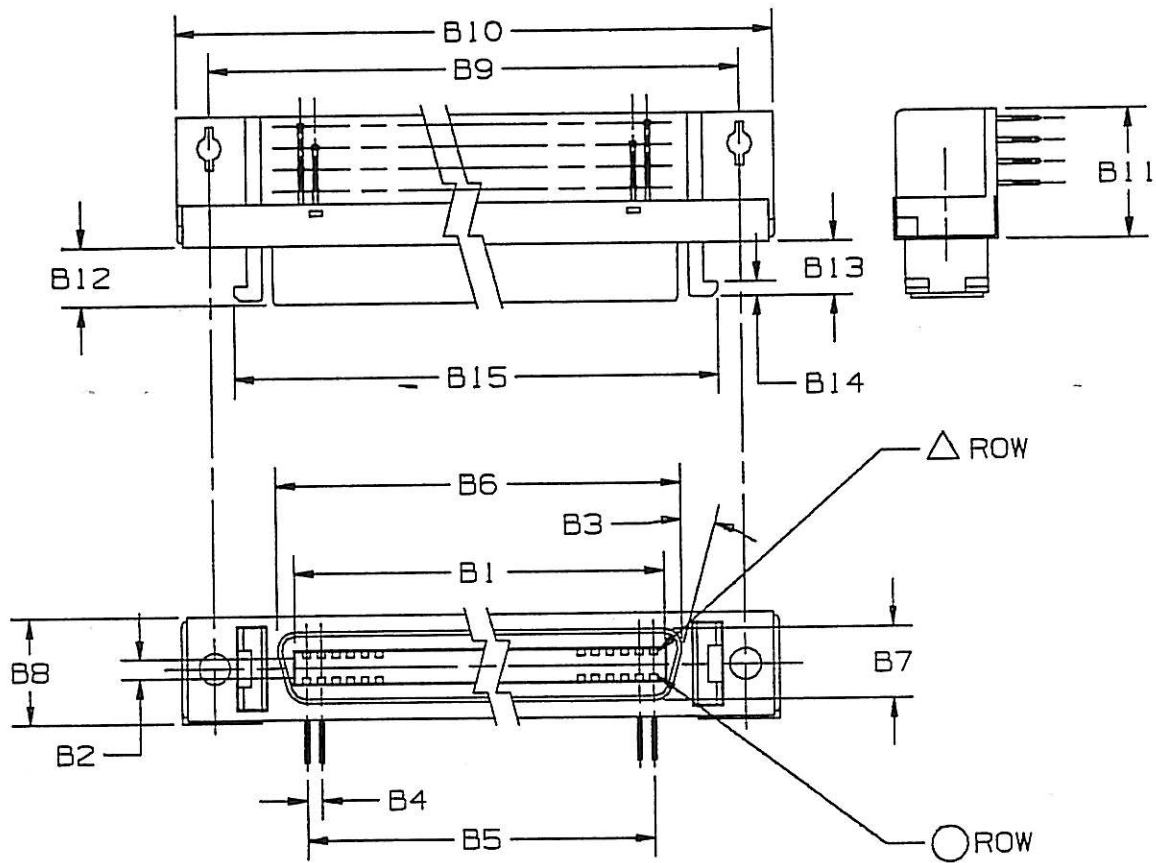
	<i>* High</i>	<i>* Mean</i>	<i>* Low</i>	<i>SD</i>
INITIAL CONTACT RESISTANCE				
Incl. wiper, IDC, and 15-25mOhms of wire/pcb	36.6	31.0	25.4	3.7
RESISTANCE CHANGES AFTER				
DURABILITY				
200 insertion/withdrawals	-2.8	.331	0.0	.567
THERMAL SHOCK				
-55°C and 105°C for 25 CYCLES	3.1	.728	-0.01	.645
ENVIRONMENTAL STRESS				
85°C at 85%Relative Humidity for 720HRS	3.5	.871	.002	.702
THERMAL LIFE				
105°C FOR 264HRS	5.4	.796	.001	.862

*Note: All resistance units are milli-ohms



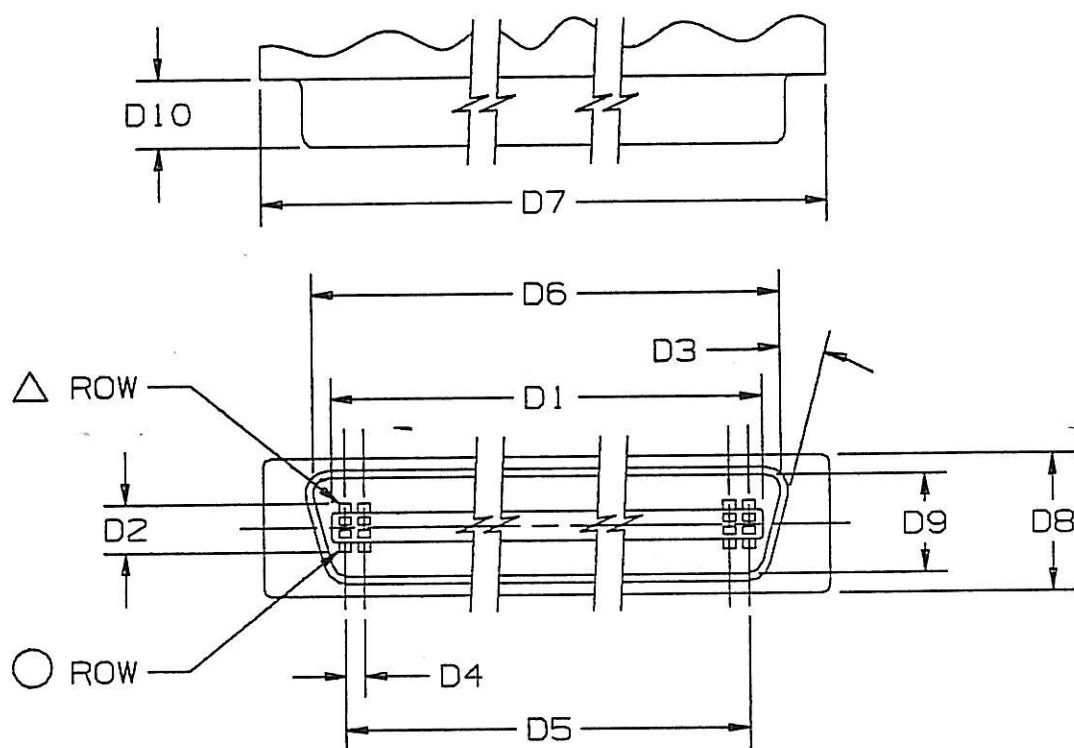
DIMENSIONS	50 POSITION		68 POSITION	
	MILLIMETERS	INCHES	MILLIMETERS	INCHES
A1	32.28	1.270	43.71	1.720
A2	2.62	.103	2.62	.103
A3	15°	15°	15°	15°
A4	1.27	.050	1.27	.050
A5	30.48	1.200	41.91	1.650
A6	35.6	1.40	4.71	1.85
A7	41.1	1.62	52.5	2.07
A8	9.1	.36	9.1	.36
A9	6.46	.25	6.46	.25
A10	4.5	.18	4.5	.18

FIGURE 1: 50/68 CONTACT SHIELDED HIGH DENSITY DEVICE CONNECTOR



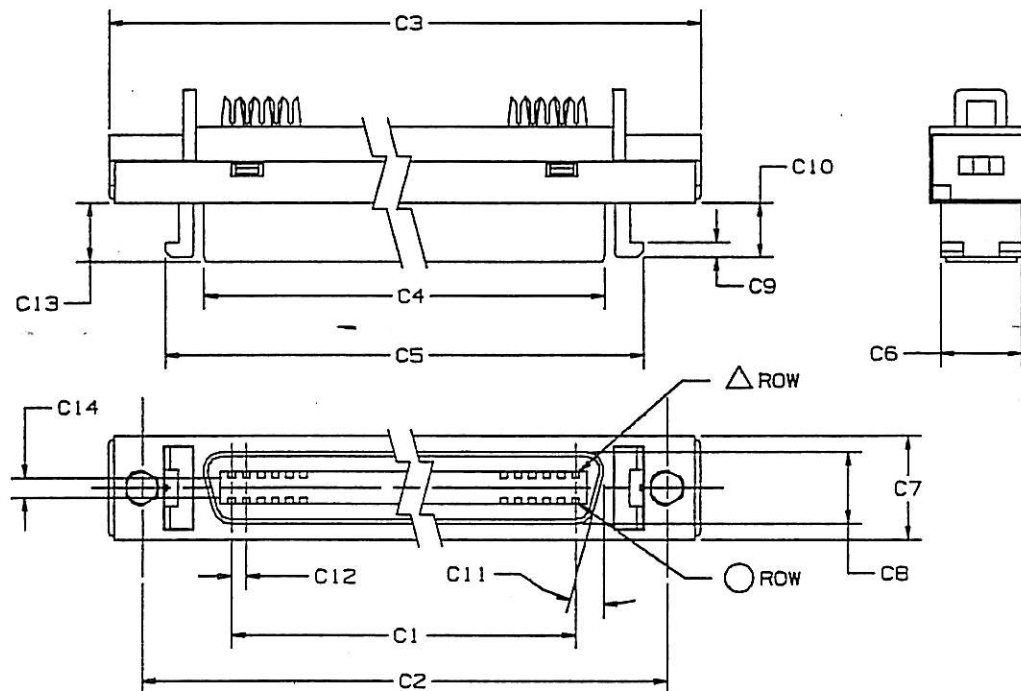
DIMENSIONS	50 POSITION		68 POSITION	
	MILLIMETERS	INCHES	MILLIMETERS	INCHES
B1	32.48	1.279	43.91	1.729
B2	2.16	.085	2.16	.085
B3	15°	15°	15°	15°
B4	1.27	.050	1.27	.050
B5	30.48	1.200	41.91	1.650
B6	35.5	1.40	46.9	1.85
B7	6.3	.25	6.3	.25
B8	9.4	.37	9.4	.37
B9	46.5	1.83	57.9	2.28
B10	52.4	2.06	63.8	2.51
B11	11.4	.45	11.4	.45
B12	5.3	.21	5.3	.21
B13	4.8	.19	4.8	.19
B14	1.3	.05	1.3	.05
B15	42.4	1.67	53.8	2.12

FIGURE 2: 50/68 CONTACT SHIELDED HIGH DENSITY DEVICE CONNECTOR



DIMENSIONS	50 POSITION		68 POSITION	
	MILLIMETERS	INCHES	MILLIMETERS	INCHES
D1	32.16	1.266	43.69	1.720
D2	2.62	.103	2.62	.103
D3	15°	15°	15°	15°
D4	1.27	.050	1.27	.050
D5	30.48	1.200	41.91	1.650
D6	35.7	1.41	47.2	1.86
D7	41.9	1.65	53.3	2.10
D8	10.0	.39	10.0	.39
D9	6.5	.26	6.5	.26
D10	5.0	.20	5.0	.20

FIGURE 4: 50/68 CONTACT NONSHIELDED HIGH DENSITY DEVICE CONNECTOR



DIMENSIONS	50 POSITION		68 POSITION	
	MILLIMETERS	INCHES	MILLIMETERS	INCHES
C1	30.48	1.200	41.91	1.650
C2	46.5	1.83	57.9	2.28
C3	52.4	2.06	63.8	2.51
C4	35.5	1.40	46.9	1.85
C5	42.4	1.67	53.8	2.12
C6	7.2	.28	7.2	.28
C7	9.1	.36	9.1	.36
C8	6.3	.25	6.3	.25
C9	1.3	.05	1.3	.05
C10	4.8	.19	4.8	.19
C11	15*	.828	15*	.828
C12	1.27	.050	1.27	.050
C13	5.3	.21	5.3	.21
C14	2.16	.085	2.16	.085

FIGURE 3: 50/68 CONTACT SHIELDED HIGH DENSITY DEVICE CONNECTOR

**CONNECTORS CLAIMING COMPATIBILITY WITH THE
3M MINI DELTA RIBBON CONNECTOR**

524

AMP

DDK

FUJITSU

HIROSE

HONDA

JAE