



PROPOSAL OF THE

MICROSHIELD[®]

INTERCONNECTION SYSTEM

PRESENTED FOR CONSIDERATION

TO THE MEMBERS OF THE

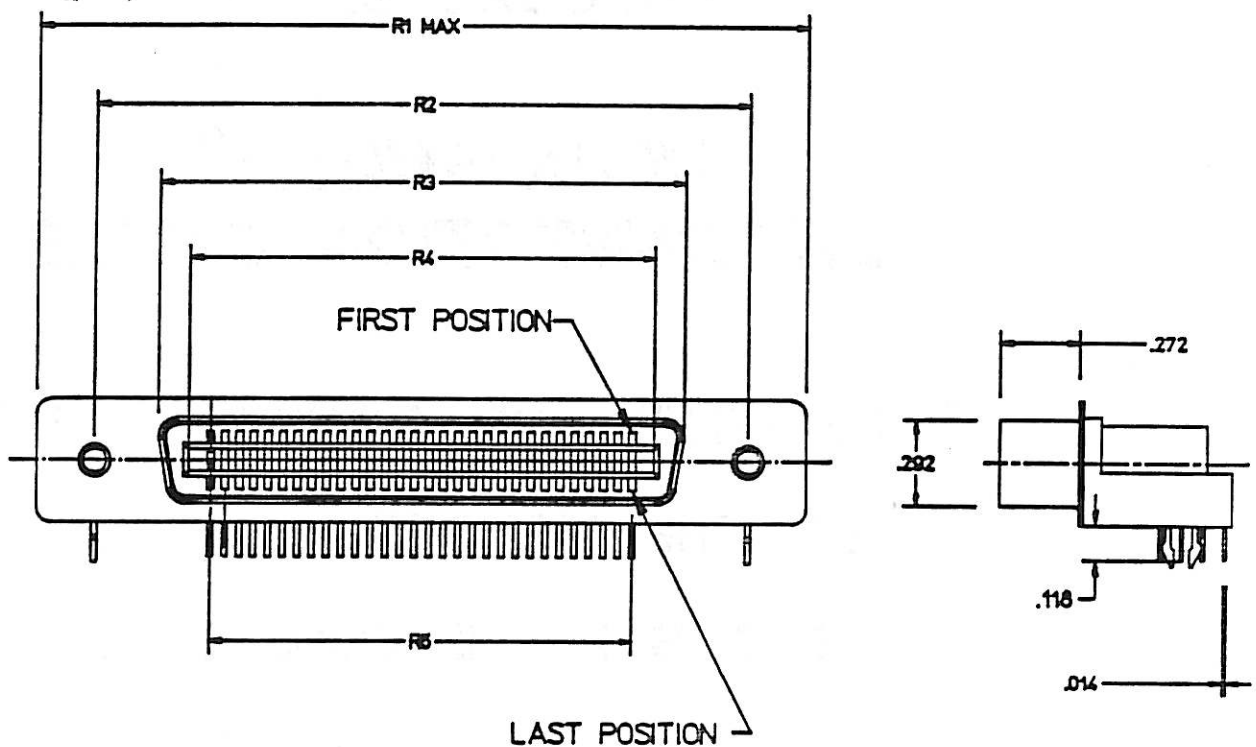
S C S I - II COMMITTEE

A N S I X3T9.2

AUGUST 15, 1988

BURNDY'S **MICROSHIELD[®]** **INTERCONNECTION SYSTEM**

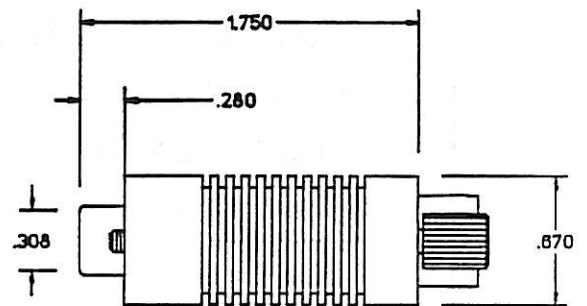
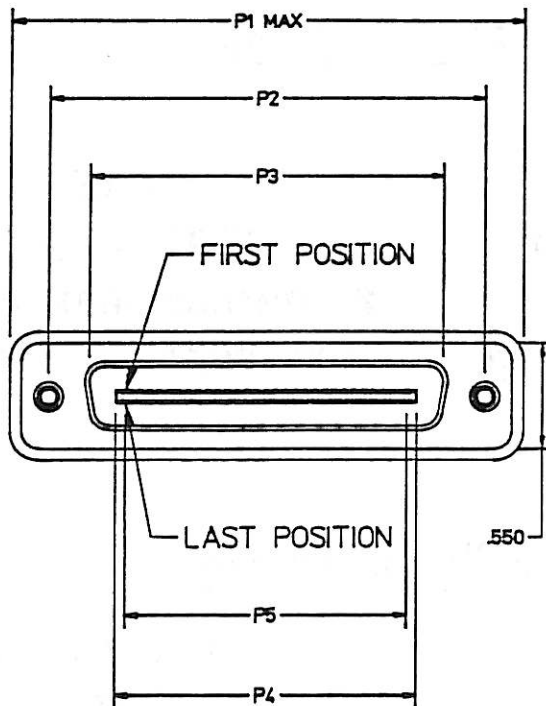
RECEPTACLE INTERFACE



DIMENSION		NUMBER OF POSITIONS											
		14	20	24	28	36	60	60	68	80	100	120	
R1	in	1.500	1.650	1.750	1.850	2.050	2.400	2.650	2.850	3.150	3.650	4.150	
	mm	38.10	41.91	44.45	46.99	52.07	60.96	67.31	72.39	80.01	92.71	105.41	
R2	in	1.100	1.250	1.350	1.450	1.650	2.000	2.250	2.450	2.750	3.250	3.750	
	mm	27.94	31.75	34.29	36.83	41.91	50.80	57.15	62.23	69.85	82.55	95.25	
R3	in	.658	.808	.908	1.008	1.208	1.558	1.808	2.008	2.308	2.808	3.308	
	mm	16.71	20.52	23.06	25.60	30.68	39.57	45.92	51.00	58.62	71.32	84.02	
R4	in	.450	.600	.700	.800	1.000	1.350	1.600	1.800	2.100	2.600	3.100	
	mm	11.43	15.24	17.78	20.32	25.40	34.29	40.64	45.72	53.34	66.04	78.74	
R5	in	.300	.450	.550	.650	.850	1.200	1.450	1.650	1.950	2.450	2.950	
	mm	7.62	11.43	13.97	16.51	21.59	30.48	36.83	41.91	49.53	62.23	74.93	

BURNDY'S **MICROSHIELD[®]** **INTERCONNECTION SYSTEM**

PLUG INTERFACE



DIMENSION		NUMBER OF POSITIONS										
		14	20	24	28	36	50	60	68	80	100	120
P1	in	1.500	1.650	1.750	1.850	2.050	2.400	2.650	2.850	3.150	3.650	4.150
	mm	38.10	41.91	44.45	46.99	52.07	60.96	67.31	72.39	80.01	92.71	105.41
P2	in	1.100	1.250	1.350	1.450	1.650	2.000	2.250	2.450	2.750	3.250	3.750
	mm	27.94	31.75	34.29	36.83	41.91	50.80	57.15	62.23	69.85	82.55	95.25
P3	in	.674	.824	.924	1.024	1.224	1.574	1.824	2.024	2.324	2.824	3.324
	mm	17.12	20.93	23.47	26.01	31.09	39.98	46.33	51.41	59.03	71.73	84.43
P4	in	.300	.450	.550	.650	.850	1.200	1.450	1.650	1.950	2.450	2.950
	mm	7.62	11.43	13.97	16.51	21.59	30.48	36.83	41.91	49.53	62.23	74.93
P5	in	.400	.550	.650	.750	.950	1.300	1.550	1.750	2.050	2.550	3.050
	mm	10.16	13.97	16.51	19.05	24.13	33.02	39.37	44.45	52.07	64.77	77.47



BURNDY'S
MICROSHIELD[®]

INTERCONNECTION SYSTEM

PERFORMANCE CHARACTERISTICS

ELECTRICAL SPECIFICATIONS

Current rating	1 amp
Contact resistance	30 milliohms max
Insulation resistance	1000 Megaohms min
Capacitance	2 pfarads max at 1 MHz
Dielectric withstanding	500 volts a.c. for 1 min.

MECHANICAL SPECIFICATIONS

Durability	250 mating cycles
Hertz stress	150,000 p.s.i. min
Maximum Insertion force	3.0 oz. per contact
Minimum Insertion force	1.0 oz. per contact
Wire gauges	26 to 28 AWG

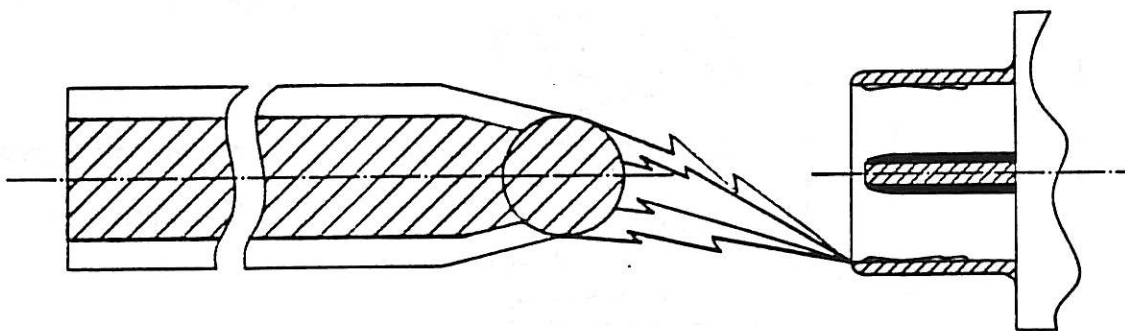
BURNDY'S

MICROSHIELD[®]

INTERCONNECTION SYSTEM

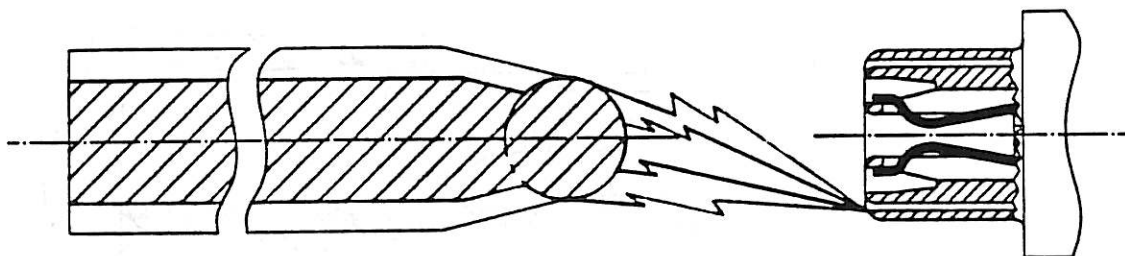
ELECTROSTATIC DISCHARGE PROTECTION

PROTECTS SYSTEM FROM DISCHARGES



DISCHARGE ELECTRODES
CONNECTED TO E.S.D. GENERATOR

GROUND
PLUG



GROUND
RECEPTACLE

E.S.D. COMPATIBILITY BASED ON REQUIREMENTS
FROM I E C PUBLICATION 801-2, 1984.

15 KILOVOLTS

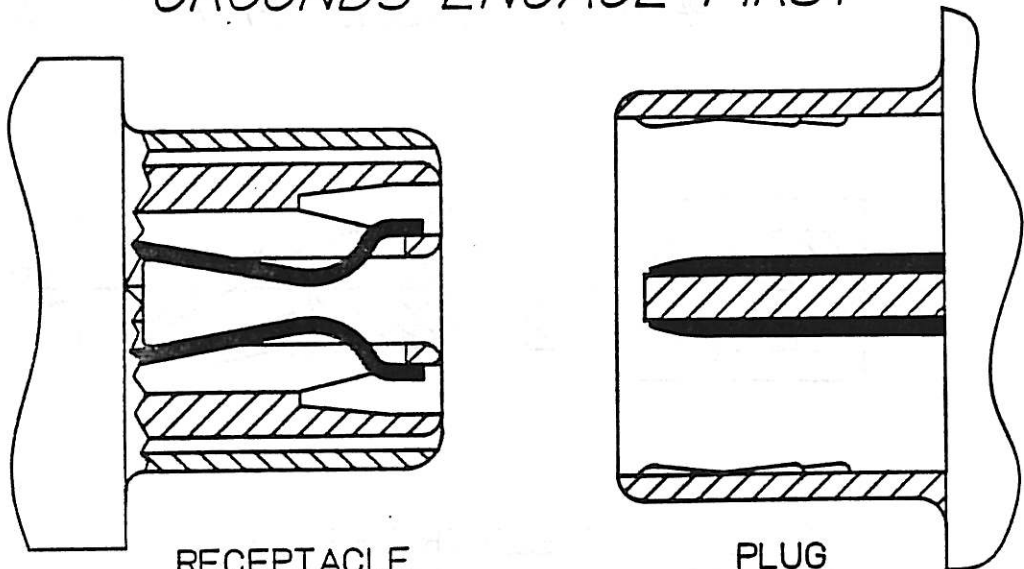
 **BURNDY'S**

MICROSHIELD[®]

INTERCONNECTION SYSTEM

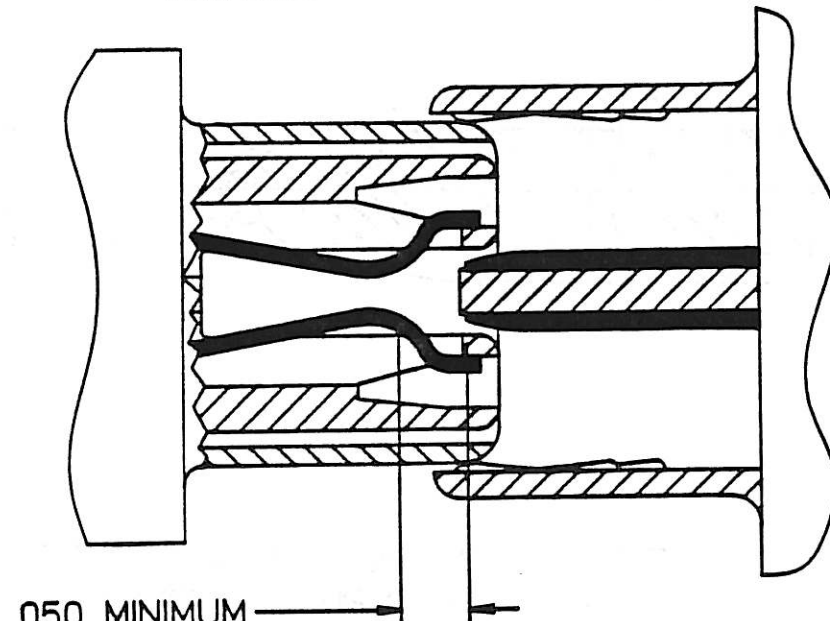
FIRST-MAKE, LAST-BREAK FEATURE

GROUNDS ENGAGE FIRST



RECEPTACLE
SECTION

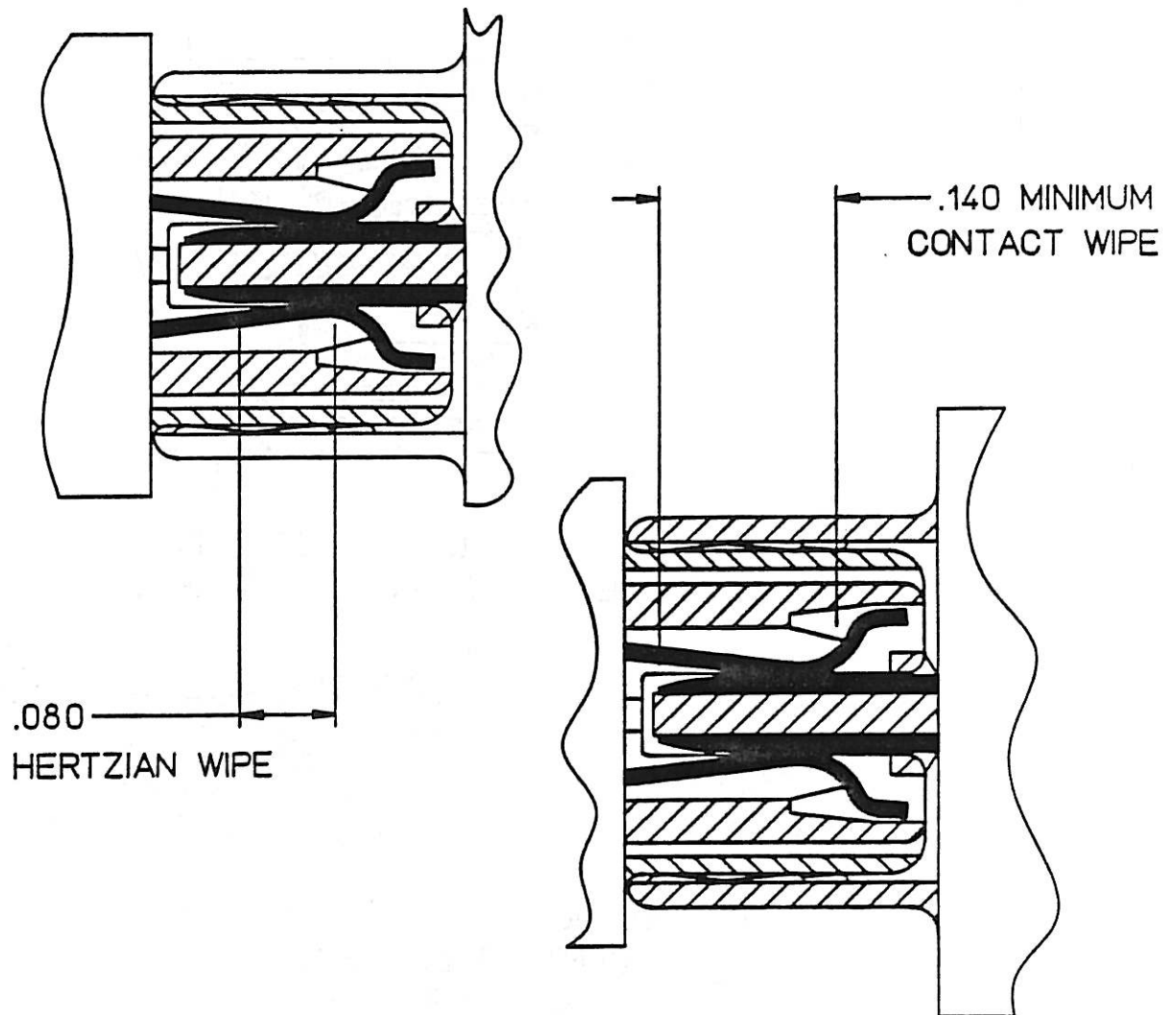
PLUG
SECTION



.050 MINIMUM
CONTACT GAP

BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM
CONTACT WIPE

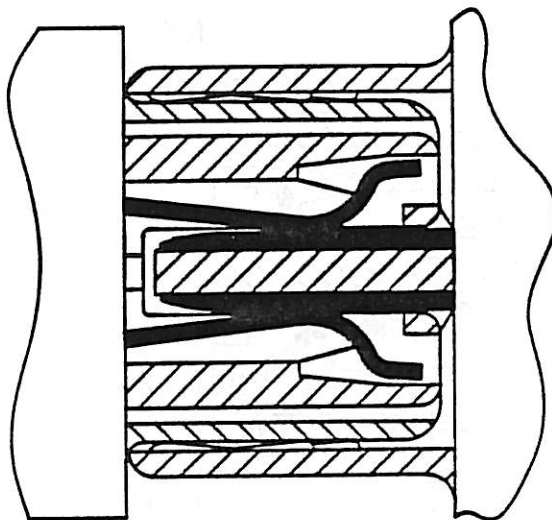
*SUPERB WIPING CHARACTERISTICS
FOR HIGH RELIABILITY*



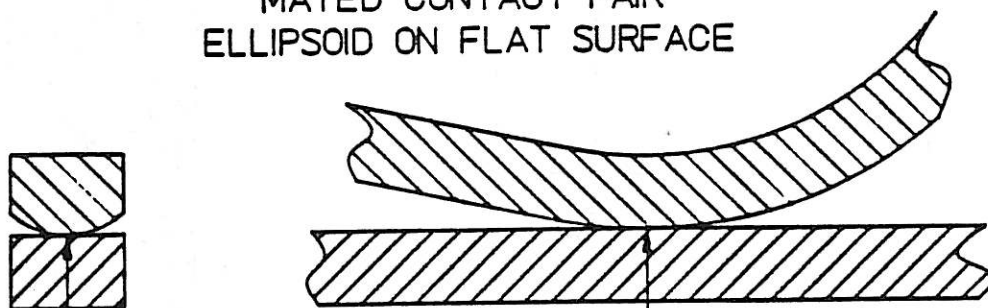
BURNDY'S
MICROSHIELD®
INTERCONNECTION SYSTEM

HERTZ STRESS

*A KEY TO CONSISTENT
AND LONG-TERM RELIABILITY*



MATED CONTACT PAIR
ELLIPSOID ON FLAT SURFACE

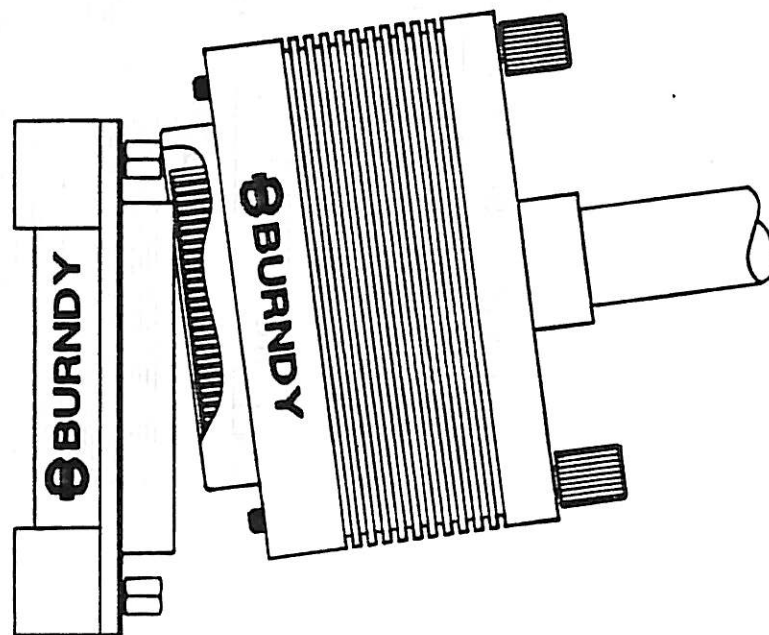


150,000 P.S.I. MINIMUM
AT CONTACT INTERFACE
FOR MAXIMUM RELIABILITY
AND CONTACT INTEGRITY

BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM

'SCOOP-PROOF' DESIGN

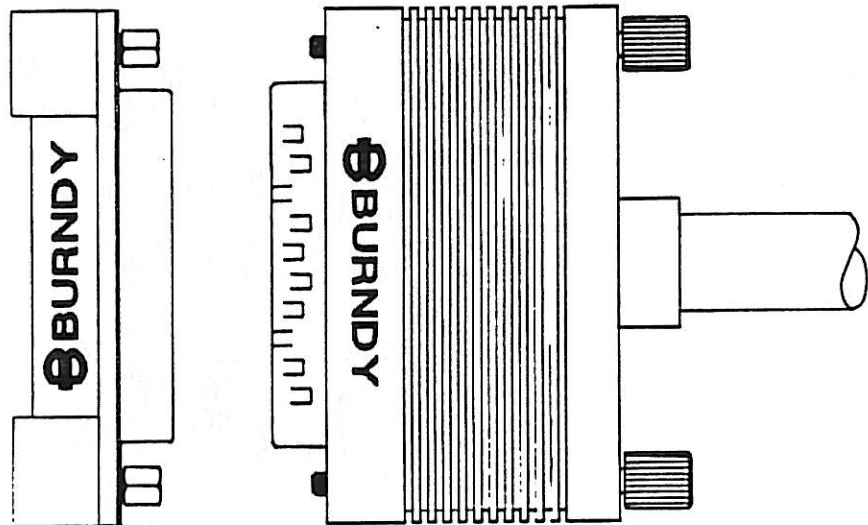
*PREVENTS DAMAGE TO CONTACTS
WITHOUT THE NEED FOR A SPECIAL
AUXILIARY ALIGNMENT GUIDE*



BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM

THUMBSCREW LOCKING FEATURE

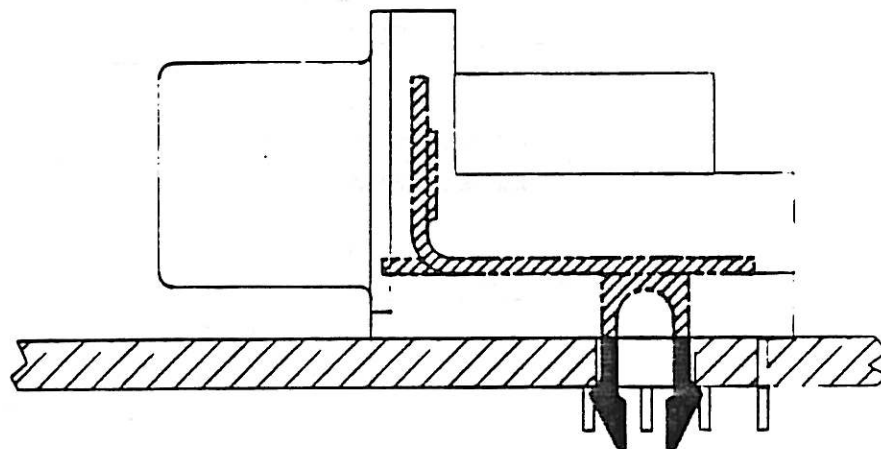
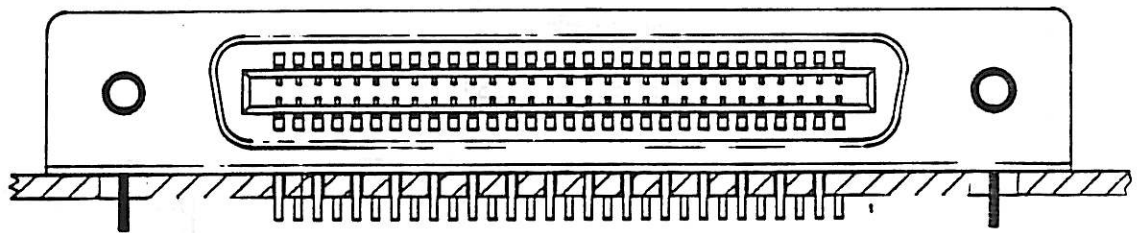
*THUMBSCREWS PROVIDE
SECURE AND RELIABLE MATING*



BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM

RETENTION AND GROUNDING FEATURE

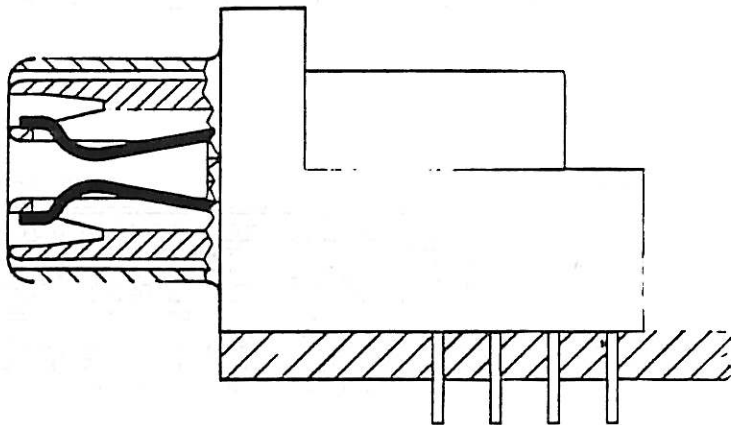
*PROVIDES LOWER MANUFACTURING COSTS
AND A SHORT, DIRECT PATH TO GROUND*



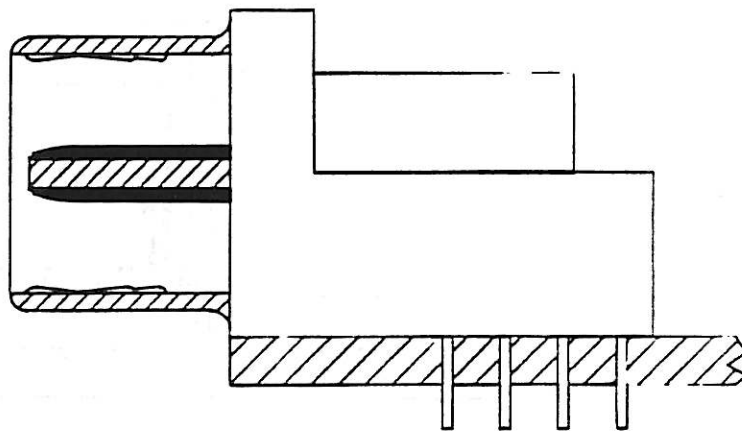
BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM

ROBUST 'RIBBON' DESIGN

PROVIDES OPTIMUM DESIGN FLEXIBILITY



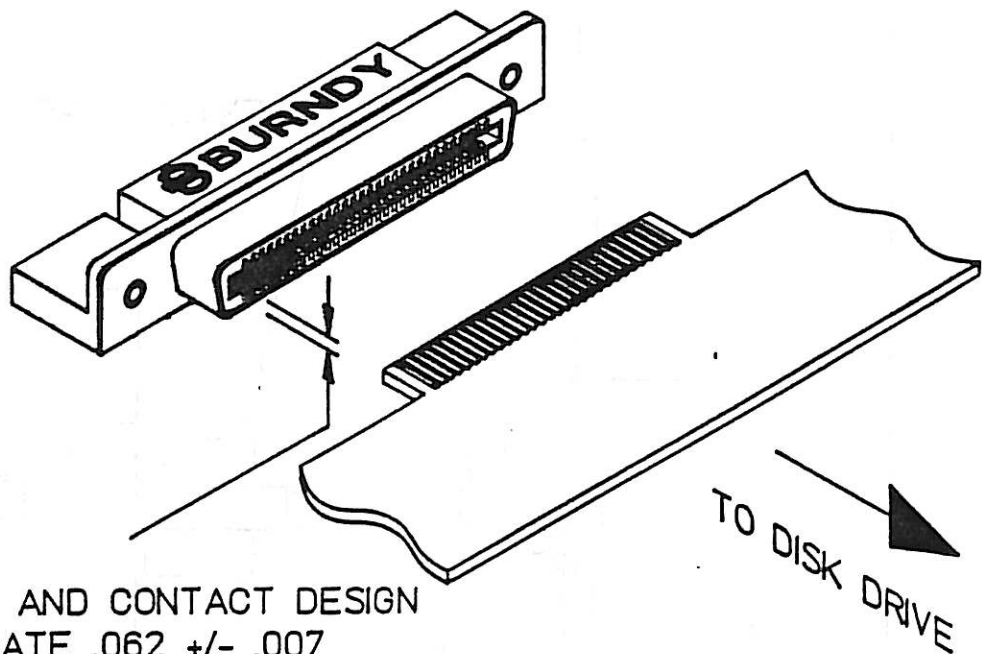
RECEPTACLE PRINTED-CIRCUIT-BOARD VERSION



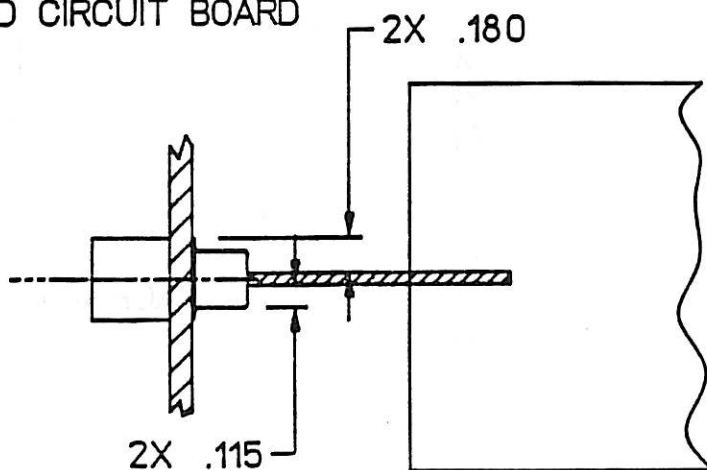
PLUG PRINTED-CIRCUIT-BOARD VERSION

BURNDY'S
MICROSHIELD®
INTERCONNECTION SYSTEM
RECEPTACLE CARD-SLOT DESIGN

*PROVIDES OPTIMUM P.C.B. PROFILE
AND DESIGN FLEXIBILITY*



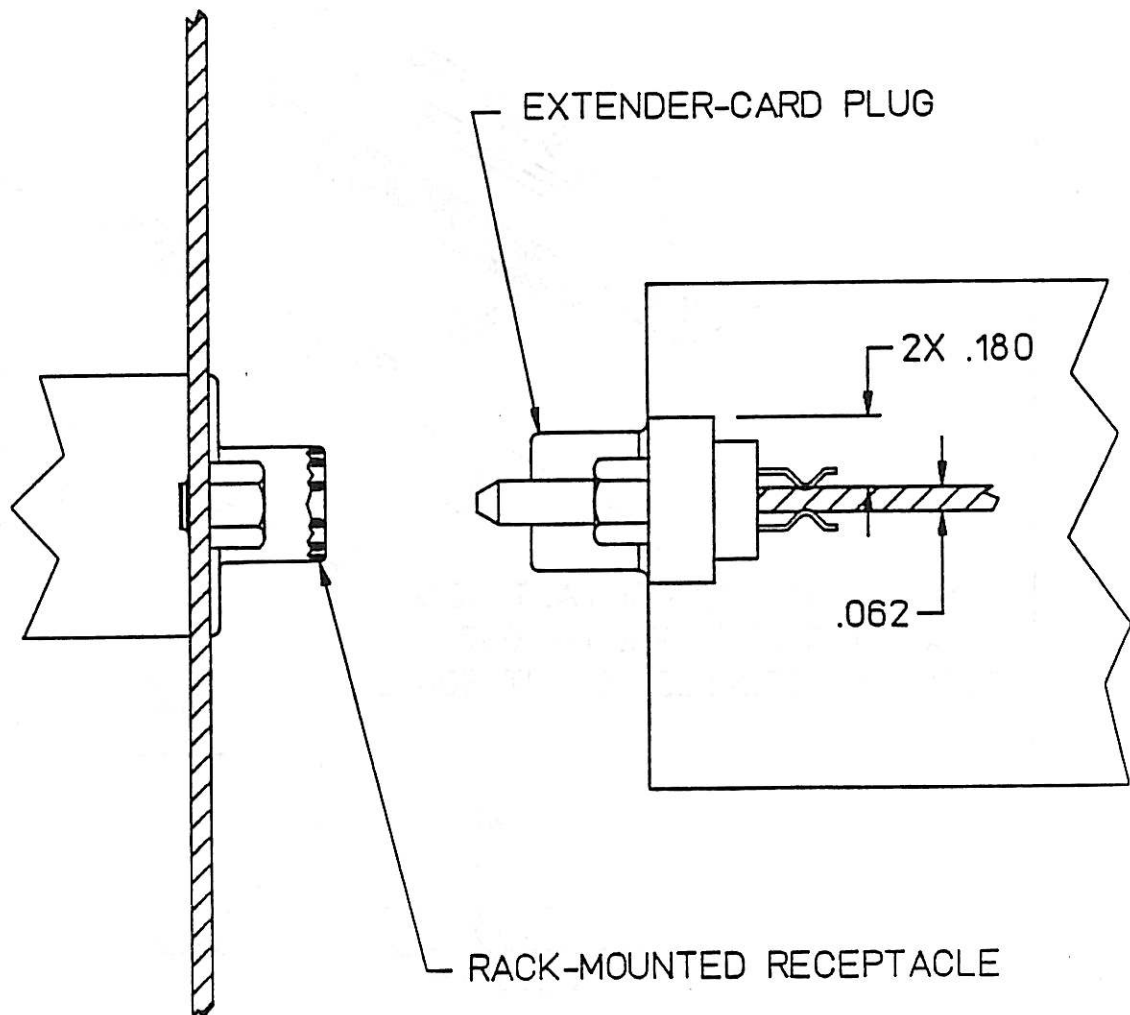
CARD SLOT AND CONTACT DESIGN
ACCOMMODATE $.062 \pm .007$
STANDARD PRINTED CIRCUIT BOARD



BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM

EXTENDER CARD OPTION

*PROVIDES OPTIMUM PROFILE
WITH MATED PAIRS*



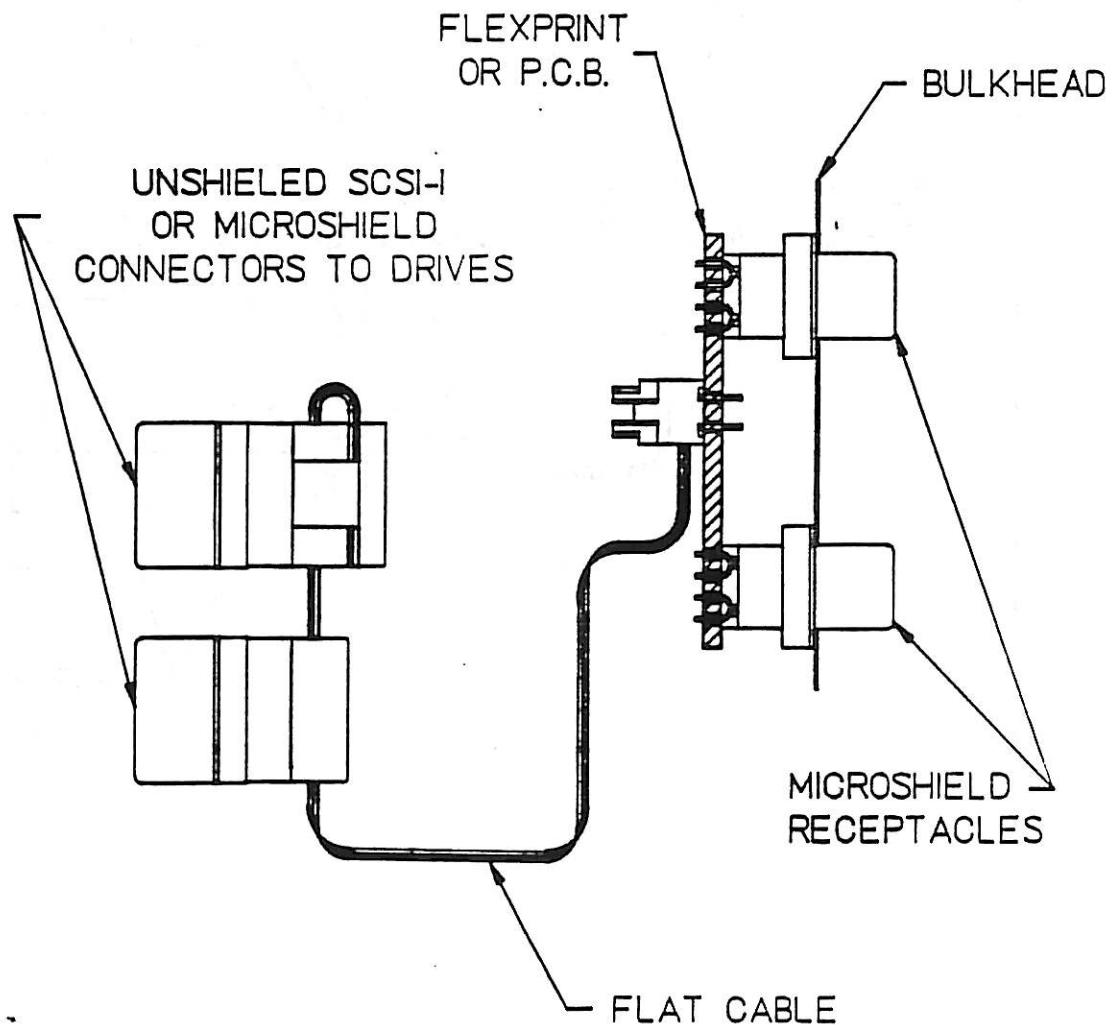
BURNDY'S

MICROSHIELD®

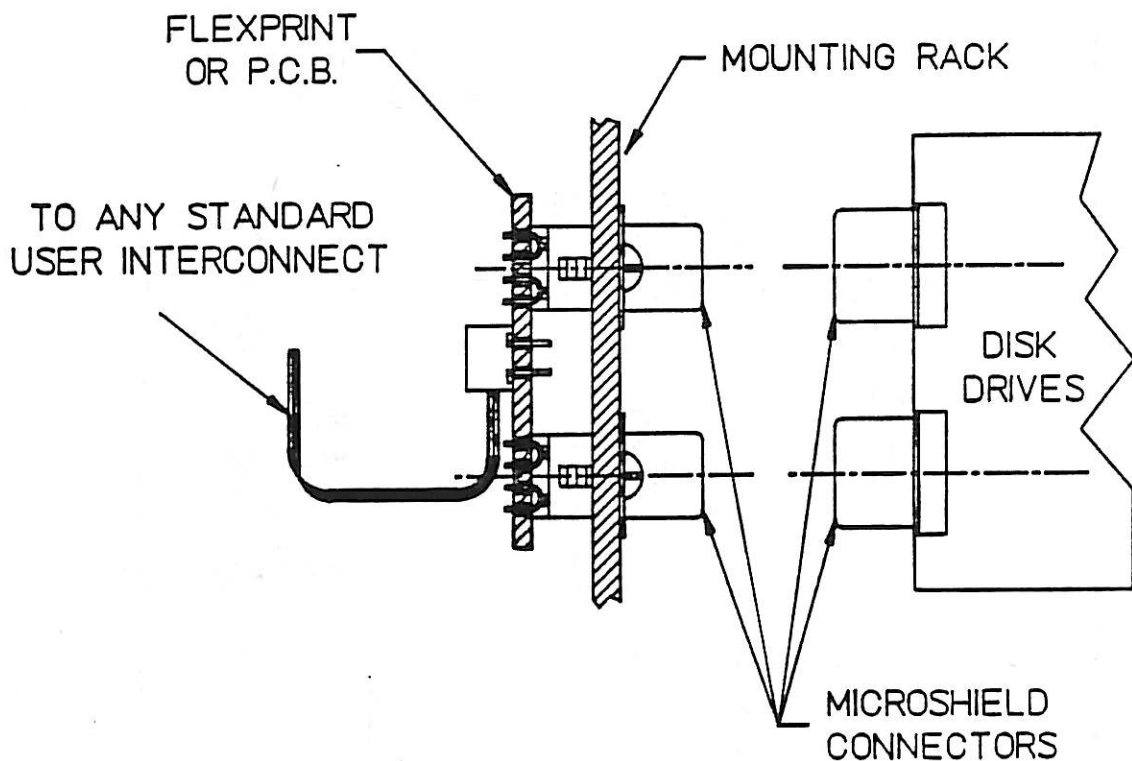
INTERCONNECTION SYSTEM

**DAISY-CHAINING CONCEPTS
INTERNAL TO BULKHEAD**

*DAISY-CHAINING COMPLEXITIES ARE
REALISTICALLY ADDRESSED
IN A SIMPLE, COST-EFFECTIVE FORMAT*



BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM
DAISY-CHAINING CONCEPTS
INTERNAL TO INTERNAL



BURNDY'S
MICROSHIELD[®]
INTERCONNECTION SYSTEM
DAISY-CHAINING CONCEPTS
COMPOSITE

