PROPOSAL OF THE
MICROSHIELD®
INTERCONNECTION SYSTEM
PRESENTED FOR CONSIDERATION
TO THE MEMBERS OF THE
SCSI-2 COMMITTEE
ANSI X3T9.2
AUGUST 15, 1988
BURNDY'S
MICROSHIELD®
INTERCONNECTION SYSTEM
PERFORMANCE CHARACTERISTICS

ELECTRICAL SPECIFICATIONS

Current rating 1 amp
Contact resistance 30 millionohms 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


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

.080
HERTZIAN WIPE

.140 MINIMUM
CONTACT WIPE
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

[Diagram of thumbscrew locking feature]
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
ACCOMODATE .062 +/- .007
STANDARD PRINTED CIRCUIT BOARD
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

FLEXPRINT OR P.C.B.
UNSHIELDED SCSI-I OR MICROSHIELD CONNECTORS TO DRIVES

BULKHEAD
MICROSHIELD RECEPTACLES
FLAT CABLE
BURNDY'S
MICROSHIELD®
INTERCONNECTION SYSTEM
DAISY-CHAINING CONCEPTS
INTERNAL TO INTERNAL

FLEXPRINT OR P.C.B.
TO ANY STANDARD USER INTERCONNECT
MOUNTING RACK
DISK DRIVES
MICROSHIELD CONNECTORS
BURNDY'S
MICROSHIELD®
INTERCONNECTION SYSTEM
DAISY-CHAINING CONCEPTS
COMPOSITE

FLEXPRINT
OR P.C.B.

MOUNTING RACK

DISK

DRIVES

MICROSHIELD CONNECTORS

BULKHEAD