SCSI-3 CONNECTOR

CLAUDE MOSLEY

IBM ROCHESTER, MN

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WORKING MEETING

• TO DISCUSS THE ADDITION OF ATTRIBUTE TO THE SCSI-3 DOCUMENT

• TO REACH AN AGREEMENT ON AN ADDITION

• THE CONNECTOR BEING DISCUSSED IS THE CONNECTOR ON RECORD IN THE SCCI-3 WORKING DOCUMENT

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WHY ATTRIBUTES

• TO SPECIFY A MINIMUM REQUIREMENT FOR BOTH THE USER AND THE SUPPLIER

• PROMOTE QUALITY BEFORE COST

• MORE CONSISTENCY AMONGST SUPPLIERS
SCSI-3 INTERFACE

- UP TO 32 DEVICES

- POSSIBLE 10 MEGA-TRANSFERS / SECOND

- 40 MEGA BYTE / SECOND

- CO-EXIST ON SAME BUS AS SCSI-2
SCSI-3 USAGE

- ENTRY SYSTEMS

- MID RANGE SYSTEMS

- LARGE SYSTEMS

- OEM DEVICES
COST OR QUALITY

- OEM AND ENTRY HAVE COST CONCERNS

- MID AND LARGE SYSTEMS NEED QUALITY FOR UNINTERRUPTED SYSTEM OPERATION

- IF QUALITY IS PUT FIRST THE COST WILL TAKE CARE OF ITSELF BY SETTING A LEVEL FOR ALL SUPPLIERS TO MEET
ATTRIBUTES TO THE PIN PORTION

- PIN -- .016 X .024 ON .050 CENTERS

- MATING SURFACE TO HAVE A RADIUS OF 1.25 MAX

- SURFACE FINISH TO N5 (RA OF 0.0004mm or 16uin.) OR BETTER

- PLATING ON THE ENTIRE MATING SURFACE TO BE A MINIMUM OF 0.000762(30uin) GOLD OVER 0.00127(50uin) NICKEL
PIN EXAMPLES

PIN MODEL

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ATTRIBUTES TO THE RECEPTACLE PORTION

- MUST BE A MULTI-WIPE CONTACT

- FAILURE RATE IS THE MAJOR FACTOR

- SURFACE FINISH TO BE N5 OR BETTER

- PLATING ON THE ENTIRE MATING SURFACE TO BE A MINIMUM OF 0.000762(30uin) GOLD 0.00127(50uin) OR BETTER

- NORMAL FORCE TO BE DEPENDENT ON THE CONTACT MATING SURFACE RADIUS PERPENDICULAR TO THE MATING SURFACE OF THE PIN
NORMAL FORCE

- PIN RADIUS IS ASSUMED TO BE 1.25 (0.050)

- RADIUS       NORMAL FORCE

  - 0.76 (0.030)  0.58 NEWTONS (65 GRAMS)

  - 1.02 (0.040)  0.72 NEWTONS (80 GRAMS)

  - 1.27 (0.050)  0.89 NEWTONS (100 GRAMS)
AS A CONNECTOR SYSTEM

• CONNECTOR TO HAVE A MINIMUM WIPE LENGTH OF 2.0 mm (.079)

• CONNECTOR TO BE CAPABLE OF 50 MATING AND UNMATING CYCLES WITHOUT WEAR THRU OF THE NOBLE PLATING

• INSERTION FORCE TO BE LESS THAN 1 NEWTON (3.5oz)

• INSULATION RESISTANCE TO BE 1000 MEGOHMS MINIMUM

• DIELECTRIC WITHSTANDING VOLTAGE TO BE 250 VAC MINIMUM

• A MAXIMUM OF 8% OF THE CONTACTS MAY CONTAIN A PORE IN THE PLATING IN CONTACT ZONE
ASSUMPTIONS

- THAT THE WORKMANSHP OF THE CONNECTOR SYSTEM ALLOWS ALL OF THE ATTRIBUTES TO FUNCTION AS A QUALITY DESIGN.

- THIS ASSUMES THAT ALL THE PARTS ARE PROPERLY POSITIONED AND THE CORRECT AMOUNT OF CLEARANCES ARE AVAILABLE