3.3 Volt SCSI Termpwr

- 3.3 Volts doesn’t work with a diode Drop.
  - 3.3 Volts minus tolerance minus diode drop is less than 3.0 Volts.
  - 3.3 Volt systems should connect to 5 Volt SCSI termpwr requiring a regulator for 3.0 to 5.25 Volt operation.

- Unidirectional Circuit Breaker Required for less than 0.2 Volt drop.
  - Section 7.3 Add note Use a Unidirectional Circuit Breaker for 3.3 Volt systems.

- Change SPI Table 7 (add) 3.3 Volt Single-ended 3,00 VDC Min 5,25 VDC Max 1500 mA
3.3 Volt Basics

- 3.3 Volt Requires 3.0 Volt terminators at the far end or power from an other device.
  - Standard termination requires at least 4.0 Volts.
  - Not all 3.3 Volt systems can provide power for the far end terminator.
  - 3.3 Volt Terminators must work to 5.25 Volts.
  - Add Special Icons showing users the limitations to Annex H.

Circle/Slash used when Termpwr is not adequate for the far end.
Termination

• **SCSI-2 Alternative Optional 2.7 V, 0.3 Volt maximum drop out regulator with 110 ohm resistors meet SCSI-3 24 mA at 0.2V.**

• **Battery systems often require termpwr to be supplied externally.**
  – Termpwr could be from a 5.25 Volt source, which requires all 3.3 Volt systems to run with 3.0 to 5.25 Volt Termpwr.

• **Add section to 7.1.1 3.3 Volt Systems the terminators must regulate with Termpwr from 3,0 VDC to 5,25 VDC**
Low Power Mode

• Battery systems with short buses do not need standard termination currents.
  – Buses less than 0.3 meters within an enclosure.
  – Reduce currents down to 1mA.
  – Switch to normal termination when a cable is attached, recommended Signal Line 50 used to detect the cable.
  – Add an informative annex for Laptops termination.
3.3 Volt SCSI Application

SCSI Tempwr Application
Termpwr Line - SCSI Bus

Voltage at the end of the cable
Vcc 3.3V 5.25V
3135V -5x

Voltage at the end of the bus

Controller end of the bus

For end of the bus

Voltage 10.15

Cable Voltage drop

8.45A at 82A TMC

4.7µF

3.18V at 3875V TMC

1µF

CL

al = all lines low 3.3V
twc = typical worst case 3135V

* UCC5814 9 Line 3.3V > 5.25 Volt with Low power mode for Laptop Applications

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