

Pg. 10, Section 2.4: Remove last paragraph since there is no such module as a 2070-1C nor is there a standard for one. This document also has no further reference/mentioning of one either.

Pg. 10, Section 2.6: Remove second sentence in its entirety (a front panel is REQUIRED on all 2070s; which one is chosen is the optional aspect).

Pg. 10, Section 2.6: Remove the word “only” in the last sentence.

Pg. 11, Section 2.7: Change “form Factor” to either “model” or “option” in the last sentence. (The AGENCY cannot require a different form factor, but they may require, for example, that all power supplies must be -4A models regardless of the configuration of the other modules).

Pg. 13, Section 3.1.3.1: Remove double period (‘. .’) at the end of the last sentence.

Pg. 16, Section 3.2.3: Need to add an allowance for using Supercapacitors (they cannot meet the 150% requirement). Suitable text is contained in the ATC v5 draft.

Pg. 25, Section 3.5.1.3.1: I believe that you mean 2 ounces per square foot (the actual translation from TEES is 1.8 ounces per square foot).

Pg. 25, Section 3.5.1.3.2: Change “Theclass” to “The class” at the beginning of the second sentence.

Pg. 26, Section 3.5.4: Suggest that jumpers BE allowed to enable a manufacturer to configure units as required for various installations. For example, to allow the inclusion of a 220/120 powers supply to be created. If required, standards could be placed on how jumpers are created but it must be remembered that both logic and power signals may need to be “jumped”. For example, with the issues surrounding Equipment Ground raised, we have added a “jumper” to connect Equipment Ground to the chassis.

Section 3.7 (in its entirety): Aspects of testing that relate to components NOT defined in this standard should be removed (references to additional components required to complete the testing of a defined device can be included, but they should not be tested). For example, subsections 3.7.13 to 3.7.20 inclusively should be removed.

Pg. 51, Section 4.1.9: Suggest that address in range 128-254 are available for manufacturer specific use (and not reserved) to allow application specific accesses of non-defined external devices on the serial buses.

Pg. 52, Section 4.2.2.4: Suggest that the 2070-1B CPU should NOT draw ANY current from ISO+12VDC, but rather should use +/- 12VDC SER if required. ISO+12VDC should be reserved EXCLUSIVELY for field I/O connections.

Pg. 53, Section 4.2.3.4: SRAM requirements are different than for TEES 2002 with Errata. Suggest that TEES be adopted which states that 512KB of SRAM be included and nothing about RAM drive R0 (in this section). Furthermore, for the SRAM, does the TEES requirement for 512KB available to the agency include the (up to) 150KB for flash sector backup image mentioned in section 4.2.7.2.8?

Pg. 54, Section 4.2.3.6: In the last sentence, change the words “be align to” back to “provide” to agree with TEES. Use of the word “align” alters the meaning of the section.

Pg. 54, 4.2.3.7: Need to specify the (minimum) length of the CPU REST pulse.

Pg. 54, Section 4.2.3.10: Remove double period (‘..’) at the end of the last sentence.

Pg. 55, Section 4.2.6: In the first sentence of the second paragraph, change “megabyte” to “megabit”.

Pg. 56, Section 4.2.6: In the table, change “megabytes” to “megabits” in three places (one for each Key Type 3, 4, and 5).

Sections 4.2.7.2 through 4.2.7.3 inclusively: Not checked at all ... assume working group has verified all details carefully.

Pg. 73, Sections 4.3.1 & 4.3.2: Both sections refer to a VDC Power Supply (+12VDC to +5VDC) and drawing 4-7-8 indicates that +5 VDC is to be made available at pin 12 on connector C12S, but no where is there requirements placed on this supply (e.g. how much current, regulation, etc.).

Pg. 73, Section 4.3.3: Please remove the requirement of using “socketed firmware” ... most manufacturers are going to flash memory for software updates.

Pg. 74, Section 4.3.4.2: This section has several errors. The second paragraph (on inputs) should be deleted in its entirety (section 4.3.4.1 addresses inputs). The third paragraph appears to be a cross of NEMA and 170 I/O standards and should be changed so that a LOW is from 0 to 4 volts, and change the transition time references to “logic 1” and “logic 0” instead of specifying voltages. You might just want to put the TEES wording back in (TEES section 9.3.4.1).

Questions per TEES specifically: (currently unreferenced for ATC2070)

Re: 2070-7x

1. Submit that “C50 ENABLE” (A1:B21) should also be available on connectors A2, A3, and A4 to prevent conflicts.
2. How fast must each EIA-232 circuitry reliably pass data through on the 2070-7A and 2070-6x modules? We understand that the opto-isolation circuitry (and RS-

- 485 interface to the serial motherboard) must work at speeds up to 1 Mbps (section 4.1.6), but what about the RS-232 signals? Please specify the minimum maximum data rates for the EIA-232 signals.
3. Do the EIA-232 drivers/receivers need to be in sockets if through-hole technologies are used? Or, is p 10-1, bullet #2 only applicable to the RS-485 drivers to the serial motherboard?
 4. Can a communications module cause a communication “glitch” during hot-swap insertion/extraction? (clarify p 10-1, bullet #4)
 5. When one uses C50 Enable to disable channel 2, in addition to disabling the RS-485 signals TO the serial motherboard, does one have to also disable the RS-485 signals FROM the serial motherboard? I.e. can we leave SP4-TXD enabled and transmitting through the EIA-232 connector? Furthermore, ATC v5a section 6.3.2.1 states “... without ability to disable the transmitter” and this section is supposed to “represent the 2070-7A”.

Re: Serial Backplane

1. There is an Equipment Ground connection from the power supply (PS2 pin 10) to the Serial Backplane. Should there be a trace on the backplane from this connection point to a screw hole, etc that connects to the chassis? It is also suggested that the Equipment Ground signal be routed to a pin on the backplane connectors for use by the modules installed in the A1-A5 slots, and also to the Front Panel connector. As an alternative to changing the front panel connector pin-out, we could add the requirement of a ground jumper wire from the main chassis to the front panel metalwork and/or PCB. In general, the whole issue of Equipment Ground needs to be addressed. Standard UL safety guidelines should be followed even if UL certification is not required.

Re: p. 9-7-7

1. Errata 1 dated October 27, 2003 includes a new SERIAL PORT REQUIREMENTS “A2 to A5 Connector Pin Out” table. There are changes that need to be reconfirmed. Please verify the table entries for SP4, SP5, and SP5S. For example, SP5 shows “SYNC, HDLC, SDLC” and SP5S shows “ASync”.
- 2.