

COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (Industry 9-25-23)

Section 997-1: Should be a requirement for the physical interfaces to be compatible also? This reads mainly for the software compatibility.

Responses are in Red:

Software compatibility is covered in the second paragraph. Physical interfaces are covered in the third paragraph. No change required.

Section 997-1:, last line: Is the 304 or 316 passivated stainless steel material compatible with the listed aluminum, brass, gold etc. Dissimilar metals create Galvanic corrosion.

Yes. No change required.

Table 997-1: Including definition of the physical and data interfaces could be beneficial.

The definitions of physical and data interfaces will be considered in future updates. The table will be reviewed by the Product Evaluation office. No change required.

Table 997-8: Is there an acceptable range, accuracy, and resolution for the measured weight?

No. Products to be used must be on the APL, which have been tested and approved by FDOT TDA. No change required.

Section 997-5: Is the regulator providing both battery charging and a power inverter? Will a power inverter needed?

Inverter will not be necessary. No change required.

Table 997-10: Under Property Section: Should there be a maximum size solar panel? Size will affect wind loads on the mounting structure.

Yes, there is a maximum size solar panel size and applications will vary and dictate the use and mounting. No change required.

Table 997-10 under Requirements section: Power is measured in Watts not Amps. Should this be Maximum Power Voltage or change the property to read Maximum Power Voltage and the requirement would be Greater than 16.5V at 77°F.

Agree. Typo will be corrected. Under the Requirements heading, change “Maximum power” to “Maximum Power Voltage”.

Power is measured in Watts not Amps. Should this be Maximum Power Current or change the property to read Maximum Power Current and the requirement would be Greater than 2.85A at 77°F

Agree. Typo will be corrected. Under the Requirements heading, change “Maximum power” to “Maximum power current”.

Table 997-13:

Power is measured in Watts not Amps. Should this be Maximum Power Voltage or change the property to read Maximum Power Voltage and the requirement would be Greater than 16.5V at 77°F

Agree. Typo will be corrected. Under the Requirements heading, change “Voltage” to “Maximum Power Voltage”.

Power is measured in Watts not Amps. Should this be Maximum Power Current or change the property to read Maximum Power Current and the requirement would be Greater than 2.85A at 77°F

Agree. Typo will be corrected. In the Requirements heading, change “Maximum power” to “Maximum power current”.

Table 997-16: Requirements Section:

Other requirements that should be listed:

Wireless communications shall be secure and wireless devices shall be Federal Communications Commission (FCC) certified. The FCC identification number shall be displayed on an external label and all detection system devices shall operate within their FCC frequency allocation.

Agree. Added “FCC Certification” under Property. Added “FCC identification number shall be displayed on an external label on the equipment” under Requirements.

Retains its programming in nonvolatile memory. The detection system configuration data shall be capable of being saved to a computer and restored from a saved file.

Table 997-16 lists the properties of the TMS Modem, not the detection system. No changes required.

How many SIM slots?

Agree. Added “Number of SIM slots” under Property. Added “Minimum of two SIM slots. SIM cards provided by the Department”

Who will provide the SIM?

See above language in previous comment which shows the “Department”.

Device shall include an Ethernet communications interface that provides a 10/100 Base TX connection.

Agree. Added “Ethernet Port Speed” under Property. Added “10/100BASE-TX Ethernet ports that utilize registered jack (RJ)-45 connectors” under Requirements.

Should TLS, an updated more secure version of SSL be included.

Transport Layer Security (TLS) is a more secure version of Secure Sockets Layer (SSL). Some manufacturers still reference SSL because it’s a more common term, however, the product they provide is TLS. No change required.

Table 997-17: Under Requirements Section: Some of these requirements are Transceiver dependent so they are manufacture defined.

Agree. Include the sentence “12. Antenna shall be compatible with the site modem”.

Also the minimum length of coax is 10ft but if the length of the coax is to long the radiated power at the antenna will be reduced. Coax length directly affects attenuation of the output signal. Need to add some requirement concerning the signal strength, maximum attenuation, or manufacturer's recommendation for the maximum length.

Index 695-001 shows that the antenna is mounted on the top of the cabinet and the modem resides inside the cabinet. Both the antenna and modem are in proximity. Change to “maximum of 10 ft.

Table 997-18:

Under Requirements: What does 'for real time' mean, this seems undefined?

"Accumulating and locally storing real-time data allowing for later retrieval"

Agree. Updated the sentence to: “Operates in an unattended mode, accumulating and locally storing real-time data allowing for later retrieval by downloading via the polling computer system”.

May need to reword to something such as:

The system shall also be capable of downloading through direct connection....

What is the direct connection. Serial, Network, or both?

Agree. Both serial and Ethernet. Added “serial or Ethernet”.

What type of interface is required to connect to the polling computer system.

The data will be transmitted via the Department’s network using TCP/IP. No change required.

Is the data pushed or pulled from/to the polling computer system?

The remote polling computer system pulls the data from the local vehicle speed classification unit. No change required.

Table 997-18: Operations property “Vehicle Speed/Classification unit operating procedures”, I am unsure how this is a requirement?

Agree. This row has been removed from the table.

Table 997-21: Please give more detail to “real time” for requirements.

Agree. Updated the sentence to: “Operates in an unattended mode, accumulating and locally storing real-time data allowing for later retrieval by downloading via the polling computer system”.

Table 997-28: Will a sunshield be required on cabinets?

No. No change required.

Table 997-30 and 997-31: Are these Surge Protection Devices? If so we should use the proper NEC nomenclature?

The listed Surge Protection Device (SPD) requirements are common with the currently installed SPDs. The possibility of providing more requirements for the SPDs will be considered in the next iteration of this article. No change required.

Table 997-32:

Optical Ports-Usually these are SFP ports on the switch. Then the optics are defined are defined. Each SFP module has a transmit/receive pair (one fiber for transmit and one fiber for receive). The optical budget is usually part of the design since the factors that dictate the required optical budget is length of fiber, attenuation of fiber, splice losses, connector loss, etc.

The number of optical ports supports a ring topology, where a typical switch would have a transmit/receive port in one direction, and another transmit/receive port in the other direction. The

optical budget of the SFP will be defined by the distance between switches, splice and connector losses. No change required.

Copper Ports- A minimum of 10/100 Base TX, if they provide a 1000BaseTx that would be sufficient.

Table states a minimum of 10/100 Base. No changes required.

Management Capability: What minimum version of SSH is required?

Not all manufacturer's specification sheets state the version of SSH. No changes required.
