



**ADVANCED TRAFFIC CONTROLLER CABINET CONFLICT MONITOR TESTER  
MODEL ACMT 5000  
Rev 2**

- 1) The Tester shall be capable of automated testing of Conflict Monitor Units as defined by ATC Cabinet Standards. The Tester shall include all required hardware and software to perform testing of these CMUs.
- 2) An older model of conflict monitor tester and CMU/MMU cable(s)  WILL  WILL NOT be sent to ATSI for a trade-in value. Details of the trade-in unit follow.

Tester for Trade:

Conflict Monitor Tester Brand:

Model:

Serial/Number:

Cables for Trade:

- NEMA TS1:  3-channel  6-channel  12 channel  18 channel
- NEMA TS2:  16 channel (All MMU's except Rack Mount 16 Channel MMUs such as the Safetran brand MMU16LEiP model)
- 16 channel Rack Mount (Will only test Rack Mount 16 Channel MMUs such as the Safetran brand MMU16LEiP model)
- 8-channel (MMU-8RM)
- System 170:  16/18 channel (Will also test monitors with the LA or NC modification)
- 208 Ramp Monitor
- System 2070:  16/18 channel

Only cables from ATSI models are given a trade-in value. If you are unsure of the types of cables, just note the number of cables. Please note that a trade-in value is given per cable. Please make certain of the number of cables that will in fact be traded.

SLNK for Trade:

An SLNK 3000 (Port1/SDLC Test Cable)  WILL  WILL NOT be sent to ATSI for a trade-in value.

- 3) The Tester shall require a Microsoft Windows-based computer (PC) to process the supervisory software during testing process. The PC operating system must be Windows 7 or newer and include a HTML browser and a PDF reader.  
NOTE: The PC for use with this Tester  IS  IS NOT a part of this equipment specification.
- 4) The supervisory software running on the PC shall provide the user interface for the Tester, allowing test setup, data entry, test report storage, retrieval, and review. The supervisory software shall automatically sequence the Tester through the selected tests, accumulate results and assemble the test report. The testing process shall proceed automatically after the initial test setup. The user interface shall provide for selection of CMU manufacturer, model, and other information pertinent to the test via menus that list the available options for each selection. The supervisory software shall automatically sense the USB port used by the Tester hardware.
- 5) Tester supervisory software shall be capable of creating and storing a test report detailing the nature and number of tests applied to the monitor. The test report shall include; the start/stop time and date of the test, a listing of each test performed and the test result (PASS, FAIL). The report shall include operator-entered text for the name of the jurisdiction, agency, or firm that is responsible for the testing; the CMU under test by Manufacturer, Model, and Serial Number; the person performing the test, and the location

where the tests were performed. Additional text fields for comments or notes will be available. The test report shall form a self-sufficient, easily understood document that can be interpreted without the use of separate instruction sets or code explanation tables.

- 6) The test reports shall be capable of being saved in terse and/or verbose formats by the user. In addition, during the test sequence the view can be toggled between terse and verbose formats.
- 7) The test report may be saved on the PC that is running the software as an Adobe Acrobat PDF file at the conclusion of the test sequence. The PDF file can be viewed and printed using any of the commonly available PDF Viewers that are part of a web browser or are available for free download. (i.e. Adobe Reader, foxit reader, sumatra)
- 8) The available test modes shall include Certification testing, Diagnostic testing, Single and Multiple-lap testing.
- 9) The Tester shall be packaged in a 6U rack-mount chassis. The dimensions are 19"W x 13"D x 10.5"H.
- 10) The tester shall be powered with 120VAC.
- 11) An optional Tester carrying case may be provided for CMU field-testing.  
The carrying case  IS  IS NOT part of this equipment specification.  
 The carrying case WILL include a pullout handle and wheels (24 lbs)(25"W x 24"D x 15"H ).  
 The carrying case WILL NOT include a pullout handle and wheels (17.5 lbs)(23"W x 17"D x 14"H).
- 12) Multiple testers running simultaneous but independent tests can be controlled by one computer.
- 13) The ACMT-5000 (tester) will run a series of comprehensive tests on the CMU to verify that it is functioning in compliance with the ATC standard. The ATC standard that defines CMU operation is a joint publication of NEMA, AASHTO and ITE. The tests are subject to the limitations of what is feasible and practical in a simulated testing environment.

At the time of issue of this purchasing specification, the ATC standard was still in draft form. The tests ran by the tester are based off of this draft and will be updated if necessary once the final version is published. THE TOTAL TESTING TIME MAY INCREASE.

- 14) During actual testing, the controlling PC's display shall show the following information pertinent to the test in progress:
  - The make, model, type, and serial number of monitor being tested.
  - The date and time of the beginning of the test.
  - The Tester serial number and firmware version number.
  - The test results of completed tests and title of the current test.
  - The number of laps completed in the continuous testing mode.
  - The number of tests failed.
- 15) The Tester shall perform the following pre-testing measures:
  - Test that a Data Key programmed appropriately for testing is inserted in the CMU.
  - Voltage self-test and timing self-test of the Tester to assure the accuracy of the test conditions and response measurement.
  - Pre-test the CMU for the presence of incorrect return voltages that could damage the Tester.
  - If these tests are not passed, the Tester shall alert the operator and halt the testing process.
  - Pre-test the CMU to attempt to prevent a Low Voltage CMU (2212-LV) being tested as a High Voltage CMU (2212-HV), as testing this way may damage the 2212-LV.
- 16) The Tester shall include a User's Manual describing all steps in the setup of the Tester as well as unlimited telephone technical support for the purchasing agency or firm.
- 17) The Tester shall provide extensive on-screen prompting and Help files.
- 18) The purchaser's interest in the Tester shall be protected by a one-year limited warranty on parts and labor. The continuing utility of the Tester shall be further protected by the availability of repair, update,

calibration, and extended warranty services from the manufacturer.

- 19) Software and Firmware updates for the tester shall be made available to download at no charge from the Internet ([www.atsi-tester.com](http://www.atsi-tester.com)).
- 20) It is recommended that the tester be calibrated every twelve (12) months.