Update on the Project 25 Compliance Assessment Program

January 16, 2008
Los Angeles, CA
NIST Office of Law Enforcement Standards

- NIST is the Nation’s lead measurement and standards organization focused on improving the U.S.’s competitive advantage in the global market and improving the quality of life.
- OLES is an Office within NIST that has a specific focus on public safety issues
  - Requirements
  - RDT&E
  - Standards
  - Compliance Assessment
- The OLES Public Safety Communications Program works on behalf of our sponsors at DHS OIC
Standards for Digital LMR (P25)

- P25 remains the “only game in town” for standards related to LMR
- There has been significant progress on key P25 interfaces over the last 24 months (CAI, ISSI, FSSI, CSSI)
- However, laboratory tests, as well as reports from the field, showed that there were inconsistent interpretations of the P25 Common Air Interface (CAI) which led to incompatibilities between manufactures radio.
- Therefore, Congress directed OIC and NIST to develop a Compliance Assessment Program for P25 equipment which could be applied to the acquisition of P25 equipment using federal grant funding
Key P25 CAP Program Features

- The program will review 1\textsuperscript{st}, 2\textsuperscript{nd}, or 3\textsuperscript{rd} party labs who will participate in the CAP program.
- Manufacturers must use approved laboratory to participate in the program.
- Participating manufacturers must publish a Suppliers Declaration of Compliance (SDoC) with standardized test report.
- SDOCs will be housed on a common website, and DHS grantees are expected to purchase equipment with approved SDOCs.
- Initial phase of the program is focused on the Common Air Interface (CAI).
Suppliers Declaration of Compliance

Project 25 Compliance Assessment Program

SUPPLIER'S DECLARATION OF COMPLIANCE (SDoC)

Company Name
Company Department
Street Address
City, State Zip
Name of Authorized Representative
Phone: XXX-XXX-XXXX, Fax: XXX-XXX-XXXX
E-mail: authorized_rep@company.com
URL: http://www.companyname.com

Product Name: (Name of product)
Installed options: (List of options)

(Company Name) hereby declares that the above referenced product complies with the following Project 25 standards:

RECEIVER TESTS: TIA-105 CL3a/b:

[ ] 1.1 Receiver Linearity under the following test conditions:
[ ] 1.2 Receiver Linearity under the following test conditions:
[ ] 1.6 Signal Delay Speed Capability under standard test conditions
[ ] 1.7 Adjacent Channel Reception under the following test conditions:
[ ] 1.8 Co-Channel Interference under the following test conditions:
[ ] 1.9 Spurious Response Rejection under the following test conditions:
[ ] 1.10 Adjacent Channel Reception under the following test conditions:
[ ] 1.11 Signal Dispersion Bandwidth under the following test conditions:
[ ] 1.12 Link Error Uplink/Downlink under standard test conditions
[ ] 1.13 Receiver Thruput Delay under standard test conditions

TRANSMITTER TESTS: TIA-105 CL2a/b:

[ ] 2.1 Radiated Emissions: Adjacent Channel Power Ratio under standard test conditions
[ ] 2.2 Radiated Emissions: Adjacent Channel Power Ratio under standard test conditions
[ ] 2.3 Transmitter Linearity under standard test conditions
[ ] 2.4 Transmitter Linearity under standard test conditions
[ ] 2.5 Frequency Deviation for CMU under standard test conditions
[ ] 2.6 Modulation Fidelity under standard test conditions
[ ] 2.7 Transmitter Power for CMU under standard test conditions

2007-09-25
Issue date

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Laboratory's Authorized Representative

NIST
## Summary Test Report

### Project 25 Compliance Assessment
Interoperability Test Report
Common Air Interface

**Motorola ASTRO 25**

<table>
<thead>
<tr>
<th>Test Case</th>
<th>Description</th>
<th>Ratio #1</th>
<th>Ratio #2</th>
<th>Ratio #3</th>
<th>Ratio #4</th>
<th>Ratio #5</th>
<th>Ratio #6</th>
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P25 Trunked Interoperability Test Report v6
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Project 25 CAP Accomplishments

- Laboratory review process document developed over the last 1.5 years and approved unanimously by industry and government participants in August
- NIST Handbook 153 – Laboratory Recognition Process for Project 25 – Compliance Assessment has been published at www.eeel.nist.gov/oles/public_safety.html
- Over the summer OLES has built a team of certified professionals that will review CAP laboratories
- We expect to begin laboratory reviews by the beginning of 2008.
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