## PRODUCT UNDER TEST

CAP Approved 9/25/2024

| Product Info | Details |
|---|---|
| **Model_Name:** | **XL-185M** |
| Hardware Capability/Options: | Frequency Bands: 700MHz, 800MHz, VHF, UHF |
| Software Options: | P25 Trunking, P25 Phase 2 TDMA, AES-256 Encryption, P25 Data Pkg (for Short Message/Status Update/Message Update interoperability tests only) |

## TEST CASE RESULT NOTATIONS AND DEFINITIONS (Vendors may define additional notations/definitions)

| Notation | Test Case Result Definition |
|---|---|
| P (Pass) | Test was passed and met stated requirements where listed |
| P1 | Functionality requires product with DTMF keypad |
| P2 | Functionality requires product with display capable of ID display |
| P3 | Functionality requires DTMF microphone |
| P4 | Functionality requires AES 256 encryption |
| P5 | Interoperability verified with only one representative base station repeater |
| P6 | Interoperability verified with only two representative base station repeaters |
| P7 | Functionality requires P25 Data software option |
| U (Unsupported) | Test examines functionality the Product Under Test does not support |
| U1 | 37.5 millisecond slot times is not supported |
| U2 | 45 millisecond slot times is not supported |
| U3 | Functionality is not supported by subscriber unit |
| U4 | Functionality is not supported by the representative base station repeater tested with the subscriber under test |
| U5 | Functionality is not supported by the representative subscriber tested with the subscriber under test in Conventional Direct Mode |
| U6 | Functionality not tested because the testing was done while under the 2010, 2016, or 2017 requirements which did not prescribe its examination |
| E (Exception) | DHS OIC Approved Test Case Exception |
| E1 | In accordance with the guidance given in TIA 102.CAAB-D §3.2.18, if the transmitter carrier output power rating is 6 watts or less, the mean frequency difference during t1 and t3, may be greater than ±12.5 kHz. |
| F (Fail) | Test was failed and did not meet stated requirements where listed |

## Conventional Subscriber Performance

**P25 CAP Test Identification**

P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.1.1 – Conventional Subscriber Unit Performance

**Detailed Test Report Identification**

DTR-P25CAP081017-2191017H
DTR-P25CAP081017-2200627H2
DTR-P25CAP081017-2220802H

The 'test case' number refers to the paragraph number for the test procedure found in the TIA-102.CAAA-E Digital C4FM/CQPSK Transceiver Measurement Methods for FDMA .

**Conventional Subscriber Unit Receiver Tests**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.1.4 | Reference Sensitivity – C4FM | ≤ -116 dBm | P | P | P | P | P |
| 3.1.4 | Reference Sensitivity – Standard Simulcast | ≤ -116 dBm | P | P | P | P | P |
| 3.1.5 | Faded Reference Sensitivity – C4FM | ≤ -108 dBm | P | P | P | P | P |
| 3.1.5 | Faded Reference Sensitivity – Standard Simulcast | ≤ -108 dBm | P | P | P | P | P |
| 3.1.6 | Signal Delay Spread Capability – C4FM | ≥ 50 µs | P | P | P | P | P |
| 3.1.6 | Signal Delay Spread Capability – Standard Simulcast | ≥ 80 µs | P | P | P | P | P |
| 3.1.7.1 | Adjacent Channel Rejection – C4FM | ≥ 60 dB | P | P | P | P | P |
| 3.1.7.1 | Adjacent Channel Rejection – Standard Simulcast | ≥ 60 dB | P | P | P | P | P |
| 3.1.7.2 | Offset Adjacent Channel Rejection – C4FM | ≥ 47 dB | P | P | P | P | P |
| 3.1.7.2 | Offset Adjacent Channel Rejection – Standard Simulcast | ≥ 47 dB | P | P | P | P | P |
| 3.1.8 | Co-Channel Rejection | ≤ 9 dB | P | P | P | P | P |
| 3.1.9 | Spurious Response Rejection | ≥ 80 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.10 | Intermodulation Rejection | ≥ 75 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.11 | Signal Displacement Bandwidth | ≥ 1000 Hz | P | P | P | P | P |
| 3.1.17 | Late Entry Unsquelch Delay: No Talk Group or Encryption | ≤ 125 ms | P | P | P | P | P |
| 3.1.18 | Receiver Throughput Delay | ≤ 125 ms | P | P | P | P | P |

**Conventional Subscriber Unit Transmitter Tests**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.2.8 | Unwanted Emissions: Adjacent Channel Power Ratio* | ≥ 67 dB (non-700MHz) | P | P | P | P | P |
| 3.2.12 | Transmitter Attack Time | ≤ 50 ms | P | P | P | P | P |
| 3.2.12 | Encoder Attack Time | ≤ 100 ms | P | P | P | P | P |
| 3.2.14 | Transmitter Throughput Delay | ≤ 125 ms | P | P | P | P | P |
| 3.2.15 | Frequency Deviation for C4FM: High-Level Signal Deviation | $2544 < f_{dev} \leq 3111$ Hz | P | P | P | P | P |
| 3.2.15 | Frequency Deviation for C4FM: Low-Level Signal Deviation | $848 < f_{dev} \leq 1037$ Hz | P | P | P | P | P |
| 3.2.16 | Modulation Fidelity – C4FM | ≤ 5% | P | P | P | P | P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t1 value in cell] | $\lvert\Delta f\rvert \leq 12.5$ kHz | [t1=20ms]<br>P | [t1=20ms]<br>P | [t1=20ms]<br>P | [t1=20ms]<br>P | [t1=20ms]<br>P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t2 value in cell] | $\lvert\Delta f\rvert \leq 6.25$ kHz | [t2=50ms]<br>P | [t2=50ms]<br>P | [t2=50ms]<br>P | [t2=50ms]<br>P | [t2=50ms]<br>P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t3 value in cell] | $\lvert\Delta f\rvert \leq 12.5$ kHz | [t3=10ms]<br>P | [t3=10ms]<br>P | [t3=10ms]<br>P | [t3=10ms]<br>P | [t3=10ms]<br>P |

*700MHz Adjacent Channel Power Ratio test is passed based on test results submitted for FCC equipment authorization.

## Trunked Subscriber Performance - FDMA

**P25 CAP Test Identification**

P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.1.2 – Trunked Subscriber Unit Performance - FDMA

**Detailed Test Report Identification**

DTR-P25CAP081017-2191017H
DTR-P25CAP081017-2200627H2
DTR-P25CAP081017-2220802H

The 'test case' number refers to the paragraph number for the test procedure found in the TIA-102.CAAA-E Digital C4FM/CQPSK Transceiver Measurement Methods for FDMA .

**Trunked Subscriber Unit Receiver Tests - FDMA**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.1.4 | Reference Sensitivity – C4FM | ≤ -116 dBm | P | P | P | P | P |
| 3.1.4 | Reference Sensitivity – Standard Simulcast | ≤ -116 dBm | P | P | P | P | P |
| 3.1.5 | Faded Reference Sensitivity – C4FM | ≤ -108 dBm | P | P | P | P | P |
| 3.1.5 | Faded Reference Sensitivity – Standard Simulcast | ≤ -108 dBm | P | P | P | P | P |
| 3.1.6 | Signal Delay Spread Capability – C4FM | ≥ 50 µs | P | P | P | P | P |
| 3.1.6 | Signal Delay Spread Capability – Standard Simulcast | ≥ 80 µs | P | P | P | P | P |
| 3.1.7.1 | Adjacent Channel Rejection – C4FM | ≥ 60 dB | P | P | P | P | P |
| 3.1.7.1 | Adjacent Channel Rejection – Standard Simulcast | ≥ 60 dB | P | P | P | P | P |
| 3.1.7.2 | Offset Adjacent Channel Rejection – C4FM | ≥ 47 dB | P | P | P | P | P |
| 3.1.7.2 | Offset Adjacent Channel Rejection – Standard Simulcast | ≥ 47 dB | P | P | P | P | P |
| 3.1.8 | Co-Channel Rejection | ≤ 9 dB | P | P | P | P | P |
| 3.1.9 | Spurious Response Rejection | ≥ 80 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.10 | Intermodulation Rejection | ≥ 75 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.11 | Signal Displacement Bandwidth | ≥ 1000 Hz | P | P | P | P | P |

**Trunked Subscriber Unit Transmitter Tests - FDMA**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.2.8 | Unwanted Emissions: Adjacent Channel Power Ratio* | ≥ 67 dB (non-700MHz) | P | P | P | P | P |
| 3.2.12 | Power Attack Time | ≤ 50 ms | P | P | P | P | P |
| 3.2.12 | Encoder Attack Time | ≤ 100 ms | P | P | P | P | P |
| 3.2.14 | Transmitter Throughput Delay | ≤ 125 ms | P | P | P | P | P |
| 3.2.15 | Frequency Deviation for C4FM: High-Level Signal Deviation | $2544 < f_{dev} \leq 3111$ Hz | P | P | P | P | P |
| 3.2.15 | Frequency Deviation for C4FM: Low-Level Signal Deviation | $848 < f_{dev} \leq 1037$ Hz | P | P | P | P | P |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3.2.16 | Modulation Fidelity – C4FM | ≤ 5% | P | P | P | P | P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t1 value in cell] | \|Δf\| ≤ 12.5 kHz | [t1=20ms] P | [t1=20ms] P | [t1=20ms] P | [t1=20ms] P | [t1=20ms] P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t2 value in cell] | \|Δf\| ≤ 6.25 kHz | [t2=50ms] P | [t2=50ms] P | [t2=50ms] P | [t2=50ms] P | [t2=50ms] P |
| 3.2.18 | Transient Frequency Behavior: Time Interval [see t3 value in cell] | \|Δf\| ≤ 12.5 kHz | [t3=10ms] P | [t3=10ms] P | [t3=10ms] P | [t3=10ms] P | [t3=10ms] P |

*700MHz Adjacent Channel Power Ratio test is passed based on test results submitted for FCC equipment authorization.

**Trunked Subscriber Unit Trunked Tests - FDMA**

| Test Case | Test Case Description | Requirement | Result |
|---|---|---|---|
| 3.3.1 | Trunked Control Channel Slot Times - 37.5 ms Slot<br>Encode Attack Time | $2.00 \le t_{slot} \le 4.15$ ms | P |
| 3.3.1 | Trunked Control Channel Slot Times - 37.5 ms Slot<br>RF Power Attack Time | $0.00 \le t_{slot} \le 4.15$ ms | P |
| 3.3.1 | Trunked Control Channel Slot Times - 37.5 ms Slot<br>RF Power Turn Off Time | ≤ 1.57 ms | P |
| 3.3.1 | Trunked Control Channel Slot Times - 45 ms Slot<br>Encode Attack Time | $2.00 \le t_{slot} \le 11.65$ ms | U2 |
| 3.3.1 | Trunked Control Channel Slot Times - 45 ms Slot<br>RF Power Attack Time | $0.00 \le t_{slot} \le 11.65$ ms | U2 |
| 3.3.1 | Trunked Control Channel Slot Times - 45 ms Slot<br>RF Power Turn Off Time | ≤ 1.57 ms | U2 |
| 3.3.2 | Trunked Request Time - 37.5 ms Slot | ≤ 160 ms | P |
| 3.3.2 | Trunked Request Time - 45 ms Slot | ≤ 167.5 ms | U2 |
| 3.3.5 | Transmitter Time to Key on a Traffic Channel<br>Short Channel Form<br>RF Transmitter time to Key on a Working Channel | ≤ 150.0 ms | P |
| 3.3.5 | Transmitter Time to Key on a Traffic Channel<br>Short Channel Form<br>Encoder Transmit Time | ≤ 150.0 ms | P |
| 3.3.5 | Transmitter Time to Key on a Traffic Channel<br>Explicit Channel Form<br>RF Transmitter Time to Key on a Working Channel | ≤ 171.1 ms | P |
| 3.3.5 | Transmitter Time to Key on a Traffic Channel<br>Explicit Channel Form<br>Encoder Transmit Time | ≤ 171.1 ms | P |

## Trunked Subscriber Performance - TDMA

**Test Identification**

P25-CAB-CAI_TEST_REQ –October 2018, Section 2.1.1.3 - Trunked Subscriber Unit Performance - TDMA

**Detailed Test Report Identification**

DTR-P25CAP081017-2191017H
DTR-P25CAP081017-2200627H2
DTR-P25CAP081017-2220802H

The 'test case' number refers to the paragraph number for the test procedure found in TIA-102.CCAA-B Two-Slot Time Division Multiple Access Transceiver Measurement Methods for TDMA.

**Trunked Subscriber Unit Receiver Tests - TDMA**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.1.4 | Reference Sensitivity - HDQPSK | ≤ -116 dBm | P | P | P | P | P |
| 3.1.5 | Faded Reference Sensitivity - HDQPSK | ≤ -108 dBm | P | P | P | P | P |
| 3.1.6 | Signal Delay Spread Capability - HDQPSK | ≥ 65 µs | P | P | P | P | P |
| 3.1.7.1 | Adjacent Channel Rejection - HDQPSK | ≥ 60 dB | P | P | P | P | P |
| 3.1.7.2 | Offset Adjacent Channel Rejection - HDQPSK | ≥ 47 dB | P | P | P | P | P |
| 3.1.8 | Co-Channel Rejection | ≤ 9 dB | P | P | P | P | P |
| 3.1.9 | Spurious Response Rejection | ≥ 80 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.10 | Intermodulation Rejection | ≥ 75 dB Mobile<br>≥ 70 dB Portable | P | P | P | P | P |
| 3.1.11 | Signal Displacement Bandwidth | ≥ 1000 Hz | P | P | P | P | P |

**Trunked Subscriber Unit Transmitter Tests - TDMA**

Only display results for tested frequency band(s)

| Test Case | Test Case Description | Requirement | VHF Result | UHF-L Result | UHF-H Result | 700 Result | 800 Result |
|---|---|---|---|---|---|---|---|
| 3.2.8 | Unwanted Emissions: Adjacent Channel Power Ratio* | ≥ 65 dB (non-700MHz) | P | P | P | P | P |
| 3.2.12 | Frequency Deviation H-CPM – High level Signal | $2995 < f_{dev} \le 3310$ Hz | P | P | P | P | P |
| 3.2.12 | Frequency Deviation H-CPM – Low Level Signal | $998 < f_{dev} \le 1104$ Hz | P | P | P | P | P |
| 3.2.13 | Modulation Fidelity | ≤ 5% | P | P | P | P | P |
| 3.2.14 | Symbol Rate Accuracy | Not to exceed 10 parts per million | P | P | P | P | P |
| 3.2.15 | H-CPM Transmitter Logical Channel Peak Adjacent Channel Power Ratio | ≥ 35 dB | P | P | P | P | P |
| 3.2.16 | H-CPM Transmitter Logical Channel Off Slot Power | ≤ -57dBm | P | P | P | P | P |
| 3.2.17 | H-CPM Transmitter Logical Channel Power Envelop | | | | | | |
| 3.2.17 | Max - On | 4 dBc | P | P | P | P | P |
| 3.2.17 | Slot Max | 1 dBc | P | P | P | P | P |
| 3.2.17 | Slot Min | -3 dBc | P | P | P | P | P |
| 3.2.17 | Max - Off | 4 dBc | P | P | P | P | P |
| 3.2.18 | H-CPM Transmitter Logical Channel Time Alignment | ±25 microseconds or less | P | P | P | P | P |

*700MHz Adjacent Channel Power Ratio test is passed based on test results submitted for FCC equipment authorization.

## Conventional Subscriber Unit Interoperability - Direct Mode

**Test Identification**

P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.3.1 - Conventional Subscriber Unit Interoperability – Direct Mode

**Representative Conventional Subscriber Unit Products tested with the Subscriber Unit for Conventional Interoperability - Direct Mode**

| Subscriber Vendor | Model Name | Product No. | Detailed Test Report # |
|---|---|---|---|
| L3Harris (PSPC) | XL-200P portable | 1 | DTR-P25CAP081017-1240620H |
| Motorola Solutions | APX 8000 portable | 2 | DTR-P25CAP081017-1180424M |
| Tait | TP9400 portable | 3 | DTR-P25CAP081017-1170504T |
| EF Johnson | VM600 mobile | 4 | DTR-P25CAP081017-1170531E2 |
| EF Johnson | VP900 portable | 5 | DTR-P25CAP081017-1170531E4 |
| EF Johnson | VM5930 mobile | 6 | DTR-P25CAP081017-1170531E1 |
| EF Johnson | VP6430 portable | 7 | DTR-P25CAP081017-1170531E3 |
| JVC Kenwood | TK-5220 portable | 8 | DTR-P25CAP081017-1171003K2 |
| JVC Kenwood | NX-5400 portable | 9 | DTR-P25CAP081017-1171003K1 |
| JVC Kenwood | TK-5410 portable | 10 | DTR-P25CAP081017-1171003K3 |
| BK Technologies | KNG2-P800 portable | 11 | DTR-P25CAP081017-1181219BK |
| Icom | IC-F9010TSB portable | 12 | DTR-P25CAP081017-1170705I1 |
| Icom | IC-F7010TS portable | 13 | DTR-P25CAP081017-1170705I2 |
| Icom | IC-F7040 portable | 14 | DTR-P25CAP081017-1190604I |
| Unication | U3 portable | 15 | DTR-P25CAP081017-1190108U1 |
| Unication | G5 pager | 16 | DTR-P25CAP081017-1190108U2 |
| Standard Communications | CM60-V25B mobile | 17 | DTR-P25CAP081017-1171011S |
| L3Harris (Tactical Coms) | AN/PRC-152A military portable | 18 | DTR-P25CAP081017-1180918HTC |
| L3Harris (Tactical Coms) | RF-345M military portable | 19 | DTR-P25CAP081017-1190522HTC |
| EF Johnson | VP8000 portable | 20 | DTR-P25CAP081017-1240718E |
| [Vendor_Name] | [Model Name] | [x] | [DTR-P25CAPxxxxxx] |

The 'test case' number refers to the test suite paragraph number and test case number in TIA-102.CABA-A Interoperability Testing for Voice Operation in Conventional Systems.

**Conventional Subscriber Unit Interoperability Tests - Direct Mode**

| Test Case | Description | Product 1 Result | Product 2 Result | Product 3 Result | Product 4 Result | Product 5 Result | Product 6 Result | Product 7 Result | Product 8 Result | Product 9 Result | Product 10 Result | Product 11 Result | Product 12 Result | Product 13 Result | Product 14 Result | Product 15 Result | Product 16 Result | Product 17 Result | Product 18 Result | Product 19 Result | Product 20 Result |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2.2.1**** | **Matching NAC Operation and SU Unaddressed Voice Call**** | | | | | | | | | | | | | | | | | | | | |
| 2.2.1.4.1 | Test Case 1 – Unaddressed Voice Call | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| **2.2.2**** | **Matching NAC Operation and SU Routine Group Voice Call**** | | | | | | | | | | | | | | | | | | | | |
| 2.2.2.4.1 | Test Case 1 – Routine Group Voice Call | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| **2.2.3**** | **Monitor Mode – SU Group Voice Call**** | | | | | | | | | | | | | | | | | | | | |
| 2.2.3.4.1 | Test Case 1 – Receiving Group Call | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2.2.8**** | **Accept Any NAC in Normal & Selective Squelch Mode – SU Group Voice Call**** | | | | | | | | | | | | | | | | | | | | |
| 2.2.8.4.1 | Test Case 1 – Receiving Group Call with Receive NAC $F7E under Normal and Selective Squelch Modes | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| **2.2.4** | **Emergency Call** | | | | | | | | | | | | | | | | | | | | |
| 2.2.4.4.1 | Test Case 1 – Emergency Call | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| **2.2.5** | **Unit-to-Unit Voice Call** | | | | | | | | | | | | | | | | | | | | |
| 2.2.5.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | U5 | U5 | P | P | P | P |
| 2.2.5.4.2 | Test Case 2 – Initiate Unit-to-Unit Call from SU 5 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | U5 | U5 | P | P | P | P |
| **2.2.6** | **Unit-to-Unit Voice Call – Receiving Units also in Monitor Mode** | | | | | | | | | | | | | | | | | | | | |
| 2.2.6.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | U5 | U5 | P | P | P | P |
| 2.2.6.4.2 | Test Case 2 – Initiate Unit-to-Unit Call from SU 5 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | U5 | U5 | P | P | P | P |
| **2.2.7** | **Encryption** | | | | | | | | | | | | | | | | | | | | |
| 2.2.7.4.1 | Test Case 1 – Call Privacy for Encrypted Call | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P | P |
| **2.3.1** | **Call Alert** | | | | | | | | | | | | | | | | | | | | |
| 2.3.1.4.1 | Test Case 1 – Call Alert (SU 1 to SU 5) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.1.4.2 | Test Case 2 – Call Alert (SU 5 to SU 1) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.3.2** | **Radio Check** | | | | | | | | | | | | | | | | | | | | |
| 2.3.2.4.1 | Test Case 1 – Radio Check (SU 1 to SU 5) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.2.4.2 | Test Case 2 – Radio Check (SU 5 to SU 1) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.3.3** | **Message Update** | | | | | | | | | | | | | | | | | | | | |
| 2.3.3.4.1 | Test Case 1 – Message Update (SU 1 to SU 5) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.3.4.2 | Test Case 2 – Message Update (SU 5 to SU 1) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.3.4** | **Status Update** | | | | | | | | | | | | | | | | | | | | |
| 2.3.4.4.1 | Test Case 1 – Status Update (SU 1 to SU 5) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.4.4.2 | Test Case 2 – Status Update (SU 5 to SU 1) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.3.5** | **Status Query** | | | | | | | | | | | | | | | | | | | | |
| 2.3.5.4.1 | Test Case 1 – Status Query (SU 1 to SU 5) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.5.4.2 | Test Case 2 – Status Query (SU 5 to SU 1) | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.3.6** | **Radio Unit Monitor** | | | | | | | | | | | | | | | | | | | | |
| 2.3.6.4.1 | Test Case 1 – Radio Unit Monitor Initiated by SU 1 – Group Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.6.4.2 | Test Case 2 – Radio Unit Monitor Initiated by SU 5 – Group Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.6.4.3 | Test Case 3 – Radio Unit Monitor Initiated by SU 1 – Unit-to-Unit Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.3.6.4.4 | Test Case 4 – Radio Unit Monitor Initiated by SU 5 – Unit-to-Unit Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |

**** P25 CAP Minimum Feature Requirement - Test Case Result must be a Pass (P)**
For further information: https://www.dhs.gov/sites/default/files/publications/P25-CAB-MIN-FEATURE_REQ_171113-508.pdf

## Conventional Subscriber Unit Interoperability - Repeat Mode

**CAB Test Section Identification**
P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.3.2 - Conventional Subscriber Unit Interoperability – Repeat Mode

**Representative Conventional Base Station Repeater Products tested with the Subscriber Unit for Conventional Interoperability - Repeat Mode**

| Base Station Repeater Vendor | Model Name | Product No. | Detailed Test Report # |
|---|---|---|---|
| L3Harris | MASTRV | 1 | DTR-P25CAP081017-1240620H |
| Motorola Solutions | GTR8000 | 2 | DTR-P25CAP081011-P1850008-RMO-GTR8K |
| EF Johnson | ATLAS 4500 | 3 | DTR-P25CAP081010-18052401-Harris XL-200P Portable |
| Tait | TB9400 | 4 | DTR-TIMCO081016 1497UT17Test Report_Rev3 |
| Codan | Transmitter model: VT-4E150-00-800<br>Receiver model: VR-4E150-A0-000 | 5 | DTR-P25CAP081016-585CUT17TestReport_3 RPTRS Rev 2.1 |
| Unication | Repeater/Base station | 6 | DTR-P25CAP081016-585CUT17TestReport_3 RPTRS Rev 2.1 |
| RF Technology | Transmitter model: Eclipse2, Receiver model: TRX150 | 7 | DTR-P25CAP081016-585CUT17TestReport_3 RPTRS Rev 2.1 |
| Radio Activity | KA-160 | 8 | DTR-P25CAPTEI-DTR-IOT-948BUT18-02 |
| Zetron | VT-4E150-00-800 / VR-4Z150-00-000 Repeater | 9 | DTR-P25CAP081011-P2220003-RMO-Zetron MT-4E-L3Harris XL- |
| [Vendor_Name] | [Model Name] | [x] | [DTR-P25CAPxxxxxx] |

The 'test case' number refers to the test suite paragraph number and test case number in TIA-102.CABA-A Interoperability Testing for Voice Operation in Conventional Systems.

**Conventional Subscriber Unit Interoperability Tests- Repeat Mode**

| Test Case | Description | Product 1 Result | Product 2 Result | Product 3 Result | Product 4 Result | Product 5 Result | Product 6 Result | Product 7 Result | Product 8 Result | Product 9 Result |
|---|---|---|---|---|---|---|---|---|---|---|
| **2.4.1**** | **Matching NAC Operation and SU Unaddressed Voice Call **** | | | | | | | | | |
| 2.4.1.4.1 | Test Case 1 – Matching NAC operation – Unaddressed Voice Call | P | P | P | P | P | P | P | P | P |
| **2.4.2**** | **Matching NAC Operation – SU Routine Group Call Mode **** | | | | | | | | | |
| 2.4.2.4.1 | Test Case 1 – Matching NAC – SU Routine Group Call Mode | P | P | P | P | P | P | P | P | P |
| **2.4.3** | **Transmit NAC Independent of Receive NAC – SU Unaddressed Voice Call** | P | P | P | P | P | P | P | P | P |
| 2.4.3.4.1 | Test Case 1 – Independent NAC Operation – SU Unaddressed Voice Call | P | P | P | P | P | P | P | P | P |
| **2.4.4** | **Transmit NAC Independent of Receive NAC – SU Routine Group Call** | | | | | | | | | |
| 2.4.4.4.1 | Test Case 1 – Independent NAC Operation – SU Routine Group Call | P | P | P | P | P | P | P | P | P |
| **2.4.5** | **Any NAC ($F7F) Operation – SU Unaddressed Voice Call** | | | | | | | | | |
| 2.4.5.4.1 | Test Case 1 – NAC $F7F Operation – SU Unaddressed Voice Call | P | P | P | P | P | P | P | P | P |
| **2.4.6** | **Any NAC ($F7F) Operation – SU Routine Group Call** | | | | | | | | | |
| 2.4.6.4.1 | Test Case 1 – NAC $F7F Operation – SU Routine Group Call | P | P | P | P | P | P | P | P | P |
| 2.4.6.4.2 | Test Case 2 – NAC $F7F Operation – SU Routine Group Call on NAC 300 | P | U6 | U6 | U6 | U6 | U6 | U6 | U6 | P |
| **2.4.7** | **Any NAC ($F7E) Operation with Fixed Transmit NAC – SU Group Call** | | | | | | | | | |
| 2.4.7.4.1 | Test Case 1 – NAC $F7E Operation – SU Group Call | P | U6 | U6 | U6 | U6 | U6 | U6 | U6 | P |
| 2.4.7.4.2 | Test Case 2 – NAC $F7E Operation – Routine Group Call on NAC 293 | P | P | P | P | P | P | P | P | P |
| **2.4.8** | **Emergency Call** | | | | | | | | | |
| 2.4.8.4.1 | Test Case 1 – Emergency Call | P | P | P | P | P | P | P | P | P |
| **2.4.9**** | **Monitor Mode – SU Group Call **** | | | | | | | | | |
| 2.4.9.4.1 | Test Case 1 – Monitor Mode – Receiving Group Call | P | P | P | P | P | P | P | P | P |
| **2.4.10** | **Unit-to-Unit Voice Call** | | | | | | | | | |
| 2.4.10.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | P | P | P | P | P | P |
| 2.4.10.4.2 | Test Case 2 – Initiate Unit-to-Unit Call from SU 1, No Co-Channel Interference Suppression | P | P | P | P | P | P | P | P | P |
| **2.4.11** | **Unit-to-Unit Voice Call Co-Channel Interference Suppression by FNE** | | | | | | | | | |
| 2.4.11.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | P | P | P | P | P | P |
| **2.4.12** | **Unit-to-Unit Voice Call – Receiving Units Also in Monitor Mode** | | | | | | | | | |
| 2.4.12.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | P | P | P | P | P | P |
| **2.4.13** | **Encryption** | | | | | | | | | |
| 2.4.13.4.1 | Test Case 1 – Call Privacy for Encrypted Call | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 | P4 |
| **2.4.14** | **Accept Any NAC in Normal and Selective Squelch Mode – SU Group Call** | | | | | | | | | |
| 2.4.14.4.1 | Test Case 1 – Receiving group Call with receive NAC $F7F under Normal and Selective Squelch Modes | P | P | P | P | P | P | P | P | P |
| **2.5.1** | **Call Alert** | | | | | | | | | |
| 2.5.1.4.1 | Test Case 1 – Initiate Call Alert Request from SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.5.2** | **Radio Check** | | | | | | | | | |
| 2.5.2.4.1 | Test Case 1 – Initiate Radio Check from SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.5.3** | **Message Update** | | | | | | | | | |
| 2.5.3.4.1 | Test Case 1 – Message Update Initiated by SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.5.3.4.2 | Test Case 2 – SU 1 to Group Message Update | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.5.4** | **Status Update** | | | | | | | | | |
| 2.5.4.4.1 | Test Case 1 – Status Update Initiated by SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.5.4.4.2 | Test Case 2 – SU to Talk Group Status Update Initiated by SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.5.5** | **Status Query** | | | | | | | | | |
| 2.5.5.4.1 | Test Case 1 – Status Query Initiated by SU 1 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| **2.5.6** | **Radio Unit Monitor** | | | | | | | | | |
| 2.5.6.4.1 | Test Case 1 – Radio Unit Monitor Initiated by SU 1 – Group Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |
| 2.5.6.4.2 | Test Case 2 – Radio Unit Monitor Initiated by SU 1 – Unit-to-Unit Call | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 |

**** P25 CAP Minimum Feature Requirement - Test Case Result must be a Pass (P)**
For further information: https://www.dhs.gov/sites/default/files/publications/P25-CAB-MIN-FEATURE_REQ_171113-508.pdf

## Conventional Subscriber Unit Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

**CAB Test Section Identification**
P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.3.3 - Conventional Subscriber Unit Interoperability - FNE Dispatch Monitoring Console - Repeat Mode

**Representative Conventional Base Station Repeater Products tested with the Subscriber Unit for Conventional Interoperability - FNE Dispatch Monitoring Console - Repeat Mode**

| Base Station Repeater Vendor | Model Name | Product No. | Detailed Test Report # |
|---|---|---|---|
| L3Harris | MASTRV | 1 | DTR-P25CAP081017-1240620H |
| Motorola Solutions | GTR8000 | 2 | DTR-P25CAP081011-P1850008-DMC-GTR8K |
| EF Johnson | ATLAS 4500 | 3 | DTR-P25CAP081010-18052401-Harris XL-200P Portable |
| [Vendor_Name] | [Model Name] | [x] | [DTR-P25CAPxxxxxx] |

The 'test case' number refers to the test suite paragraph number and test case number in TIA-102.CABA-A Interoperability Testing for Voice Operation in Conventional Systems.

**Conventional Subscriber Unit Interoperability Tests - FNE Dispatch Monitoring Console - Repeat Mode**

| Test Case | Description | Product 1 Result | Product 2 Result | Product 3 Result | columns as needed |
|---|---|---|---|---|---|
| **2.6.1** | **Unaddressed Voice Call** | | | | |
| 2.6.1.4.1 | Test Case 1 – Unaddressed Voice Call | P | P | P | |
| **2.6.2** | **Routine Group Call** | | | | |
| 2.6.2.4.1 | Test Case 1 – Routine Group Call | P | U4 | P | |
| **2.6.3** | **Emergency Call** | | | | |
| 2.6.3.4.1 | Test Case 1 – Emergency Call from SU | P | P | P | |
| 2.6.3.4.2 | Test Case 2 – Emergency Call from DMC | P | U4 | U4 | |
| **2.6.4** | **All Call (System-Wide Call)** | | | | |
| 2.6.4.4.1 | Initiate System-Wide Call to Collection of Talk Groups | U3 | U3 | U3 | |
| **2.6.5** | **Unit-to-Unit Voice Call** | | | | |
| 2.6.5.4.1 | Test Case 1 – Initiate Unit-to-Unit Call from DMC | P | P | P | |
| 2.6.5.4.2 | Test Case 2 – Initiate Unit-to-Unit Call from SU 1 | P | P | P | |
| **2.6.6** | **Encryption** | | | | |
| 2.6.6.4.1 | Test Case 1 – Call Privacy for Encrypted Call | P4 | P4 | P4 | |
| **2.7.1** | **Emergency Alarm to Dispatch and/or other Monitoring Console** | | | | |
| 2.7.1.4.1 | Test Case 1 – Emergency Alarm | P | P | P | |
| **2.7.2** | **Call Alert** | | | | |
| 2.7.2.4.1 | Test Case 1 – Initiate Call Alert Request from DMC | U3 | U3 | U3 | |
| 2.7.2.4.2 | Test Case 2 – Initiate Call Alert Request from SU 1 | U3 | U3 | U3 | |
| **2.7.3** | **Radio Check** | | | | |
| 2.7.3.4.1 | Test Case 1 – Initiate Radio Check from DMC | U3 | U3 | U3 | |
| **2.7.4** | **Radio Unit Inhibit** | | | | |
| 2.7.4.4.1 | Test Case 1 – Radio Unit Inhibit from DMC | U3 | U3 | U3 | |
| **2.7.5** | **Radio Unit Uninhibit** | | | | |
| 2.7.5.4.1 | Test Case 1 – Radio Unit Uninhibit from DMC | U3 | U3 | U3 | |
| **2.7.6** | **Message Update** | | | | |
| 2.7.6.4.1 | Test Case 1 – Message Update from DMC | U3 | U3 | U3 | |
| 2.7.6.4.2 | Test Case 2 – DMC to Group Message Update | U3 | U3 | U3 | |
| 2.7.6.4.3 | Test Case 3 – SU 1 to DMC Message Update | P7 | P7 | U4 | |
| 2.7.6.4.4 | Test Case 4 – SU 1 to Group Message Update | U3 | U3 | U3 | |
| **2.7.7** | **Status Update** | | | | |
| 2.7.7.4.1 | Test Case 1 – Status Update from SU 1 to DMC | P7 | P7 | P7 | |
| 2.7.7.4.2 | Test Case 2 – Talk Group Status Update Initiated by SU 1 | U3 | U3 | U3 | |
| **2.7.8** | **Status Query** | | | | |
| 2.7.8.4.1 | Test Case 1 – Status Query Initiated by DMC | U3 | U3 | U3 | |
| **2.7.9** | **Radio Unit Monitor** | | | | |
| 2.7.9.4.1 | Test Case 1 – Radio Unit Monitor Initiated by DMC – Group Call | U3 | U3 | U3 | |
| 2.7.9.4.2 | Test Case 2 – Radio Unit Monitor Initiated by DMC – Unit-to-Unit Call | U3 | U3 | U3 | |

## Trunked Subscriber Unit Interoperability - FDMA

**CAB Test Section Identification**

P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.3.4 - Trunked Subscriber Unit Interoperability – FDMA (Phase 1)

**Representative Trunked Base Station Repeater Products tested with the Subscriber Unit for Trunked Interoperability - FDMA**

| Base Station Repeater Vendor | Model Name | Product No. | Detailed Test Report # |
|---|---|---|---|
| L3Harris | MASTRV | 1 | DTR-P25CAP081017-1240620H |
| Motorola Solutions | ASTRO25 | 2 | DTR-P25CAP081011-P1850008-FDMA-ASTRO25 |
| Tait | TN9400 P25 Core Network, TB9400 | 3 | DTR-P25CAPTIMCO081016 TAIT/TN9400/HARRIS |
| EF Johnson | ATLAS System 4500 repeater, Atlas 8000 controller | 4 | DTR-P25CAP081010-18110801 – XL200P Portable |
| [Vendor_Name] | [Model Name] | [x] | [DTR-P25CAPxxxxxx] |

The 'test case' number refers to the test suite paragraph number and test case number inTIA-102.CABC-C Interoperability Testing for Voice Operation in Trunked Systems

**Trunked Subscriber Unit Interoperability Tests - FDMA**

| Test Case | Description | Product 1 Result Home | Product 1 Result Inter-SYS Roaming | Product 1 Result Inter-WACN Roaming | Product 2 Result Home | Product 2 Result Inter-SYS Roaming | Product 2 Result Inter-WACN Roaming | Product 3 Result Home | Product 3 Result Inter-SYS Roaming | Product 3 Result Inter-WACN Roaming | Product 4 Result Home | Product 4 Result Inter-SYS Roaming | Product 4 Result Inter-WACN Roaming | Add columns as needed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2.2.1** | **Full Registration** | | | | | | | | | | | | | |
| 2.2.1.4.1 | Test Case 1 – Valid Registration | P | P | U4 | P | P | P | P | U4 | U4 | P | P | P | |
| 2.2.1.4.2 | Test Case 2 – Denied or Refused Registration | P | P | U4 | P | P | P | P | U4 | U4 | P | P | P | |
| 2.2.1.4.3 | Test Case 3 – Unverified Registration | P | P | U4 | P | U4 | U4 | P | U4 | U4 | P | U4 | U4 | |
| **2.2.2** | **Group Voice Call** | | | | | | | | | | | | | |
| 2.2.2.4.1 | Test Case 1 – Group Call Granted | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| 2.2.2.4.2 | Test Case 2 – Group Call Denied | P | P | U4 | P | P | P | P | U4 | U4 | P | P | P | |
| 2.2.2.4.3 | Test Case 3 – Group Call Request Queued | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| 2.2.2.4.4 | Test Case 4 – Group Call Interrupt | P | P | U4 | P | P | P | U6 | U4 | U4 | P | U4 | U4 | |
| **2.2.3** | **Unit-to-Unit Voice Call** | | | | | | | | | | | | | |
| 2.2.3.4.1 | Test Case 1 – Unit-to-Unit Call with Target Availability Check | P | P | U4 | P | U4 | U4 | P | U4 | U4 | P | U4 | U4 | |
| 2.2.3.4.2 | Test Case 2 - Unit-to-Unit Call with Target Availability Check- Denied by Target | P | P | U4 | P | U4 | U4 | F | U4 | U4 | P | U4 | U4 | |
| 2.2.3.4.3 | Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment After Target Availability Check | P | P | U4 | P | U4 | U4 | P | U4 | U4 | P | U4 | U4 | |
| 2.2.3.4.4 | Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | |
| 2.2.3.4.5 | Test Case 5 – Unit-to-Unit Call without Target Availability Check | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.3.4.6 | Test Case 6 – Unit-to-Unit Call Queued without Target Availability Check | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.3.4.7 | Test Case 7 – Unit-to-Unit Call Denied | P | P | U4 | P | U4 | U4 | p | U4 | U4 | P | U4 | U4 | |
| **2.2.4** | **Broadcast Voice Call** | | | | | | | | | | | | | |
| 2.2.4.4.1 | Test Case 1 – Broadcast Voice Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.5** | **Affiliation** | | | | | | | | | | | | | |
| 2.2.5.4.1 | Test Case 1 – Radio Permitted to Affiliate with New Group | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| 2.2.5.4.2 | Test Case 2 – Radio Denied Affiliation to New Group | P | P | U4 | P | P | P | P | U4 | U4 | P | P | P | |
| **2.2.6** | **Announcement Group Call** | | | | | | | | | | | | | |
| 2.2.6.4.1 | Test Case 1 – Collection of Talk Groups Receive Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.7** | **Emergency Alarm** | | | | | | | | | | | | | |
| 2.2.7.4.1 | Test Case 1 – Emergency Alarm | P | P | U4 | P | P | P | P | U4 | U4 | P | P | P | |
| **2.2.8** | **Emergency Group Call** | | | | | | | | | | | | | |
| 2.2.8.4.1 | Test Case 1 – Emergency Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.10** | **Encryption** | | | | | | | | | | | | | |
| 2.2.10.4.1 | Test Case 1 – Call Privacy for Encrypted Call | P4 | P4 | U4 | P4 | P4 | P4 | P4 | U4 | U4 | P4 | U4 | U4 | |
| **2.2.11** | **Intra-Location Registration Area Roaming** | | | | | | | | | | | | | |
| 2.2.11.4.1 | Test Case 1 – Idle Radio | P | NA | NA | P | NA | NA | P | NA | NA | P | NA | NA | |
| **2.2.13** | **Deregistration** | | | | | | | | | | | | | |
| 2.2.13.4.1 | Test Case 1 – Deregistration | P | P | U4 | P | P | P | U6 | U6 | U6 | P | P | P | |
| **2.2.14** | **System Call** | | | | | | | | | | | | | |
| 2.2.14.4.1 | Test Case 1 – System Call | U4 | U4 | U4 | U4 | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| **2.2.15** | **Call Alert** | | | | | | | | | | | | | |
| 2.2.15.4.1 | Test Case 1 – Call Alert | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | P | U4 | U4 | |
| **2.2.16** | **Short Message** | | | | | | | | | | | | | |
| 2.2.16.4.1 | Test Case 1 – Short Message | P | P | U4 | U4 | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| **2.2.17** | **Status Query** | | | | | | | | | | | | | |
| 2.2.17.4.1 | Test Case 1 – Status Query | U3 | U3 | U3 | U3 | U3 | U3 | U6 | U6 | U6 | U3 | U3 | U3 | |
| **2.2.18** | **Status Update** | | | | | | | | | | | | | |
| 2.2.18.4.1 | Test Case 1 – Status Update | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | P | U4 | U4 | |
| **2.2.19** | **Radio Unit Monitoring** | | | | | | | | | | | | | |
| 2.2.19.4.1 | Test Case 1 – Individual Non-Silent | P | P | U4 | U4 | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| 2.2.19.4.2 | Test Case 2 – Individual Silent | P | P | U4 | U4 | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| 2.2.19.4.3 | Test Case 3 – Group Non-Silent | P | P | U4 | U4 | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| 2.2.19.4.4 | Test Case 4 – Group Silent | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| **2.2.20** | **Radio Unit Disable/Re-Enable** | | | | | | | | | | | | | |
| 2.2.20.4.1 | Test Case 1 – Radio Unit Disable | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| 2.2.20.4.2 | Test Case 2 – Radio Unit Re-Enable | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |
| **2.2.21** | **Radio Check** | | | | | | | | | | | | | |
| 2.2.21.4.1 | Test Case 1 – Radio Check Successful | P | P | U4 | P | U4 | U4 | U6 | U6 | U6 | U4 | U4 | U4 | |

## Trunked Subscriber Unit Interoperability - TDMA

**CAB Test Section Identification**

P25-CAB-CAI_TEST_REQ – October 2018, Section 2.1.3.5 - Trunked Subscriber Unit Interoperability – TDMA (Phase 2)

**Representative Trunked Base Station Repeater Products tested with the Subscriber Unit for Trunked Interoperability - TDMA**

| Base Station Repeater Vendor | Model Name | Product No. | Detailed Test Report # |
|---|---|---|---|
| L3Harris | MASTRV | 1 | DTR-P25CAP081017-1240620H |
| Motorola Solutions | ASTRO25 | 2 | DTR-P25CAP081011-P1850008-TDMA-ASTRO25 |
| EF Johnson | ATLAS System 4500 repeater, Atlas 8000 controller | 3 | DTR-P25CAP081010-18110801 – XL200P Portable |
| Airbus | VESTA P25 Trunking System | 4 | DTR-P25CAP081016-1326UT18-TDMA TRUNKING SU IOT-HARRIS |

The 'test case' number refers to the test suite paragraph number and test case number inTIA-102.CABC-C Interoperability Testing for Voice Operation in Trunked Systems

**Trunked Subscriber Unit Interoperability Tests - TDMA**

| Test Case | Description | Product 1 Result Home | Product 1 Result Inter-SYS Roaming | Product 1 Result Inter-WACN Roaming | Product 2 Result Home | Product 2 Result Inter-SYS Roaming | Product 2 Result Inter-WACN Roaming | Product 3 Result Home | Product 3 Result Inter-SYS Roaming | Product 3 Result Inter-WACN Roaming | Product 4 Result Home | Product 4 Result Inter-SYS Roaming | Product 4 Result Inter-WACN Roaming | Add columns as needed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **2.2.1** | **Full Registration** | | | | | | | | | | | | | |
| 2.2.1.4.1 | Test Case 1 – Valid Registration | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.2** | **Group Voice Call** | | | | | | | | | | | | | |
| 2.2.2.4.1 | Test Case 1 – Group Call Granted | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| 2.2.2.4.3 | Test Case 3 – Group Call Request Queued | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| 2.2.2.4.4 | Test Case 4 – Group Call Interrupt | P | P | U4 | P | P | P | U4 | U4 | U4 | U4 | U4 | U4 | |
| **2.2.3** | **Unit-to-Unit Voice Call** | | | | | | | | | | | | | |
| 2.2.3.4.1 | Test Case 1 – Unit-to-Unit Call with Target Availability Check | P | P | U4 | P | U4 | U4 | U4 | U4 | U4 | P | U4 | U4 | |
| 2.2.3.4.3 | Test Case 3 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment After Target Availability Check | P | P | U4 | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.3.4.4 | Test Case 4 – Unit-to-Unit Call Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | U3 | |
| 2.2.3.4.5 | Test Case 5 – Unit-to-Unit Call without Target Availability Check | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.3.4.6 | Test Case 6 – Unit-to-Unit Call Queued without Target Availability Check | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| **2.2.4** | **Broadcast Voice Call** | | | | | | | | | | | | | |
| 2.2.4.4.1 | Test Case 1 – Broadcast Voice Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.6** | **Announcement Group Call** | | | | | | | | | | | | | |
| 2.2.6.4.1 | Test Case 1 – Collection of Talk Groups Receive Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.8** | **Emergency Group Call** | | | | | | | | | | | | | |
| 2.2.8.4.1 | Test Case 1 – Emergency Call | P | P | U4 | P | P | P | P | U4 | U4 | P | U4 | U4 | |
| **2.2.10** | **Encryption** | | | | | | | | | | | | | |
| 2.2.10.4.1 | Test Case 1 – Call Privacy for Encrypted Call | P4 | P4 | U4 | P | P | P | P4 | U4 | U4 | P4 | U4 | U4 | |
| **2.2.14** | **System Call** | | | | | | | | | | | | | |
| 2.2.14.4.1 | Test Case 1 – System Call | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| **2.2.19** | **Radio Unit Monitoring** | | | | | | | | | | | | | |
| 2.2.19.4.1 | Test Case 1 – Individual Non-Silent | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.19.4.2 | Test Case 2 – Individual Silent | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.19.4.3 | Test Case 3 – Group Non-Silent | P | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.19.4.4 | Test Case 4 – Group Silent | P | P | U4 | P | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| **2.2.26** | **Transmitting Subscriber Forced Preemption** | | | | | | | | | | | | | |
| 2.2.26.4.1 | Test Case 1 – TDMA SU Forced Audio Preemption | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | U4 | |
| 2.2.26.4.2 | Test Case 2 – TDMA SU Forced Emergency Call Ruthless Preemption | P | P | U4 | P | P | P | U4 | U4 | U4 | P | U4 | U4 | |