

Project 25 Compliance Assessment Program
SDOC – UNICATION CO., LTD. – G4 PAGER
February 26, 2019

SUBSCRIBER PRODUCT INFORMATION

| Subscriber Info | Detail |
|---|--|
| Model Name: | G4 |
| Tested Software Versions: ¹ | V1.10-T03 |
| Hardware Capabilities/Options & Software Options: | 700 MHz BAND, 800 MHz BAND; AES-256 encryption |

TEST REQUIREMENTS CAB IDENTIFICATION

This product was tested according to the P25 CAP Test Requirements Compliance Assessment Bulletin (CAB) indicated by the checked box.

| check one | P25 CAP Test Requirement CAB | Details |
|------------------|---|---|
| X | P25-CAB-CAI_TEST_REQ – August 2016² | Adds conventional interoperability testing to the March 2010 P25 CAP Test Requirements |
| | P25-CAB-CAI_TEST_REQ – July 2017³ | Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing |

SUMMARY TEST REPORT IDENTIFIER⁴

| | |
|---------------------------------------|--|
| Summary Test Report (STR) Identifier: | STR - Unication Co., Ltd. - SUBSCRIBER |
|---------------------------------------|--|

CONTACT INFORMATION

| Vendor Info | Details |
|------------------------|--|
| Vendor Name: | Unication Co., Ltd. |
| Vendor Website URL: | https://www.unicationusa.com/ |
| P25 CAP Contact Name: | Mr. Robert Marchetto |
| P25 CAP Contact Phone: | 604-205-7450 ext 3301 |
| P25 CAP Contact Email: | rmarchetto@uniamericas.com |

¹ Current and previous software versions are listed in the 'Models & Software' worksheet tab of the Summary Test Report (STR).

² The following version of the 2016 CAB was used for testing [Insert the filename of the Test Requirements CAB document that was used for testing, including the version information].

³ The following version of the 2017 CAB was used for testing [Insert the filename of the Test Requirements CAB document that was used for testing, including the version information].

⁴ The Summary Test Report for this product is available upon request. Please send your STR request to P25CAP@hq.dhs.gov and please include the subscriber 'Vendor Name'.

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ENCRYPTION STATEMENT

This product complies with the P25 CAP Encryption Requirements CAB (P25-CAB-ENC_REQ). The checked box indicates how the product was tested.

| | |
|----------|---|
| X | Tested with the AES 256 encryption algorithm and shall be available with AES 256 encryption at a minimum or without any encryption of any type. |
| | Tested without the AES 256 encryption algorithm and shall only be available without any encryption of any type. |

CONVENTIONAL PERFORMANCE

The Subscriber product has been tested for Conventional Performance. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP Conventional Performance Testing Coverage

Receiver Tests: Reference Sensitivity, Faded Reference Sensitivity, Signal Delay Spread Capability, Adjacent Channel Rejection, Offset Adjacent Channel Rejection, Co-Channel Rejection, Spurious Response Rejection, Intermodulation Rejection, Signal Displacement Bandwidth, Late Entry Unsilence Delay, and Receiver Throughput Delay.

Unsupported or Failed Requirements

1. Unsupported: All **Transmitter Tests** (Unwanted Emissions (Adjacent Channel Power Ratio), Transmitter Power and Encoder Attack Time, Transmitter Throughput Delay, Frequency Deviation for C4FM, and Modulation Fidelity, Transient Frequency Behavior.)

2. The Subscriber is a receiver only, designed to work in conjunction with Public Safety networks, and is not a scanner.

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TRUNKING PERFORMANCE - FDMA

The Subscriber product has been tested for Trunking Performance - FDMA. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP FDMA Trunking Performance Testing Coverage

Receiver Tests: Reference Sensitivity, Faded Reference Sensitivity, Signal Delay Spread Capability, Adjacent Channel Rejection, Offset Adjacent Channel Rejection, Co-Channel Rejection, Spurious Response Rejection, Intermodulation Rejection, and Signal Displacement Bandwidth.

Unsupported or Failed Requirements

1. Unsupported: All Transmitter Tests (Unwanted Emissions (Adjacent Channel Power Ratio), Power Attack time, Encoder Attack Time, Transmitter Throughput Delay, Frequency Deviation for C4FM, and Modulation Fidelity, Transient Frequency Behavior.) And all Trunked Tests (Trunking Control Channel Slot Times, Trunking Request Time, and Transmitter Time to Key on a Traffic Channel.)
2. The receiver works in conjunction with Trunked architecture, but as a receiver only. Because it cannot transmit, it does not communicate with the FNE.

TRUNKING PERFORMANCE - TDMA

(only applicable for the 2017 CAB)

The Subscriber product has been tested for Trunking Performance - TDMA. All requirements were passed except for those requirements identified below under Unsupported or Failed Requirements.

P25 CAP TDMA Trunking Performance Testing Coverage

Receiver Tests: None.

Transmitter Tests: None.

Unsupported or Failed Requirements

1. TDMA capability not supported

CONVENTIONAL DIRECT MODE INTEROPERABILITY

The Subscriber product has been tested for Conventional Direct Mode Interoperability. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP Direct Mode Interoperability Testing Coverage

Network Access Code (NAC) Operation, Group Voice Call, Emergency Call, Unit-to-Unit Voice Call, Encryption, Call Alert, Radio Check, Message Update, Status Update, Status Query, and Radio Unit Monitor.

Unsupported or Failed Test Cases

1. Radio Check, Message Update, Status Update, Status Query, Radio Unit Monitor are unsupported.

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Optional Product Capabilities Required to Pass Test Cases

1. In order to pass the unit to unit voice call test case and Call Alert test case, a host subscriber must be used to initiate the transmission. The corresponding receiver-subscriber will then receive the transmission.

CONVENTIONAL REPEAT MODE INTEROPERABILITY

The Subscriber product has been tested for Conventional Repeat Mode Interoperability. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP Repeat Mode Interoperability Testing Coverage

Network Access Code (NAC) Operation, Group Voice Call, Emergency Call, Unit-to-Unit Voice Call, Encryption, Call Alert, Radio Check, Message Update, Status Update, Status Query, and Radio Unit Monitor.

Unsupported or Failed Test Cases

1. Radio Check, Message Update, Status Update, Status Query, Radio Unit Monitor are unsupported.

Optional Product Capabilities Required to Pass Test Cases

1. In order to pass the unit to unit voice call test case and Call Alert test case, a host subscriber must be used to initiate the transmission. The corresponding receiver-subscriber will then receive the transmission.

CONVENTIONAL REPEAT MODE with DISPATCH MONITORING CONSOLE INTEROPERABILITY

The Subscriber product has been tested for Conventional Repeat Mode with Dispatch Monitoring Console Interoperability. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP Repeat Mode Interoperability Testing Coverage

Group Voice Call, Emergency Call, All Call, Unit-to-Unit Voice Call, Encryption, Emergency Alarm, Call Alert, Radio Check, Radio Unit Inhibit/Uninhibit, Message Update, Status Update, Status Query, and Radio Unit Monitor.

Unsupported or Failed Test Cases

1. Emergency Alarm, Radio Check, Message Update, Status Update, Status Query, Radio Unit Monitor, Radio Unit Inhibit, Radio Unit Uninhibit are unsupported.

Optional Product Capabilities Required to Pass Test Cases

1. In order to pass the unit to unit voice call test case and Call Alert test case, a host subscriber must be used to initiate the transmission. The corresponding receiver-subscriber will then receive the transmission.

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TRUNKED SUBSCRIBER UNIT INTEROPERABILITY – FDMA

(Baseline features are tested as part of the 2016 CAB. Additional features are tested as part of the 2017 CAB.)

The Subscriber product has been tested for Trunked Interoperability - FDMA. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

2016 P25 CAP FDMA Trunked Interoperability Testing Coverage

Full Registration, Group Voice Call, Unit to Unit Voice Call, Broadcast Voice Call, Affiliation, Announcement Group Call, Emergency Alarm, Emergency Group Call, Encryption, Intra-Location Registration Area Roaming

2017 P25 CAP FDMA Trunked Interoperability Testing Coverage

Unsupported or Failed Test Cases

1. Full Registration, Unit-to-Unit Voice Call, Call Alert, Radio Check, Short Message, Status Update, Status Query, Radio Unit Monitor, Deregistration, System Call, Call Alert, Short Message, Status Query, Status Update, Radio Unit Monitoring, Radio Unit Disable/Re-Enable, and Radio Check are unsupported

Optional Product Capabilities Required to Pass Test Cases

1. In order to pass any test case, the receiver-subscriber must be utilized in conjunction with a transmitter/receiver subscriber unit.
2. The receiver-subscriber is incapable of passing any test case where it is necessary to communicate to the FNE (ie. Full Registration). The receiver-subscriber could be described as a “passive receiver” device which observes P25 protocols.

TRUNKED SUBSCRIBER UNIT INTEROPERABILITY – TDMA

(only applicable for the 2017 CAB)

The Subscriber product has been tested for Trunked Interoperability - TDMA. All test cases were passed except for those test cases identified below under Unsupported or Failed Test Cases. Test cases that passed but require specific, sometimes optional, product capabilities are also identified below.

P25 CAP TDMA Trunked Interoperability Testing Coverage

None.

Unsupported or Failed Test Cases

1. TDMA is unsupported

Optional Product Capabilities Required to Pass Test Cases

1. n/a. Device does not operate in TDMA

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SIGNATURE AND DATE

Nov 28, 2019

Date Signed



Vendor's Authorized Representative Signature

Vendor's Authorized Representative Printed Name

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