

**Project 25 Compliance Assessment Program**  
**SDOC – UNICATION CO., LTD. – U3**  
**February 26, 2019**

**SUBSCRIBER PRODUCT INFORMATION**

<b>Subscriber Info</b>	<b>Detail</b>
Model Name:	U3
Tested Software Versions: <sup>1</sup>	V0.1-12B-T42G
Hardware Capabilities/Options & Software Options:	VHF, UHF-Mid, 700, 800 MHz Bands

**TEST REQUIREMENTS CAB IDENTIFICATION**

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

<b>check one</b>	<b>P25 CAP Test Requirement CAB</b>	<b>Details</b>
<b>X</b>	<b>P25-CAB-CAI_TEST_REQ – August 2016<sup>2</sup></b>	Adds conventional interoperability testing to the March 2010 P25 CAP Test Requirements
	<b>P25-CAB-CAI_TEST_REQ – July 2017<sup>3</sup></b>	Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing

**SUMMARY TEST REPORT IDENTIFIER<sup>4</sup>**

Summary Test Report (STR) Identifier:	STR - Unication Co., Ltd. - SUBSCRIBER
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**CONTACT INFORMATION**

<b>Vendor Info</b>	<b>Details</b>
Vendor Name:	Unication Co., Ltd.
Vendor Website URL:	<a href="https://www.unicationusa.com/">https://www.unicationusa.com/</a>
P25 CAP Contact Name:	Mr. Robert Marchetto
P25 CAP Contact Phone:	604-205-7450 ext 3301
P25 CAP Contact Email:	<a href="mailto:rmarchetto@uniamericas.com">rmarchetto@uniamericas.com</a>

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

<sup>2</sup> 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].

<sup>3</sup> 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].

<sup>4</sup> The Summary Test Report for this product is available upon request. Please send your STR request to [P25CAP@hq.dhs.gov](mailto: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.

<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	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 Unsquell Delay, and Receiver Throughput Delay.

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.

### Unsupported or Failed Requirements

1. None.

## 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.

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.

Trunked Tests: Trunking Control Channel Slot Times, Trunking Request Time, and Transmitter Time to Key on a Traffic Channel.

### Unsupported or Failed Requirements

1. None.

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**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**

Radio Check (SU 5 to SU 1), Message Update, Status Update (SU 1 to SU 5), Status Query (SU 5 to SU 1), Radio Unit Monitor Initiated by SU 1 – Unit to Unit Call, and Radio Unit Monitor Initiated by SU 5 – Unit to Unit Call

**Optional Product Capabilities Required to Pass Test Cases**

1. N/A

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**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**

Message Update Initiated by SU 1, SU 1 Group Message Update, and SU to Talk Group Status Update Initiated by SU 1

**Optional Product Capabilities Required to Pass Test Cases**

1. N/A

**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**

Radio Unit Inhibit from DMC, Radio Unit Uninhibit from DMC, Message Update, Status Update, and Status Query

**Optional Product Capabilities Required to Pass Test Cases**

1. For some console systems, transmitted Radio status & message index numbers must be pre-programmed into the console in order to function correctly.

**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.

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### 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

AT HARRIS' FACILITY ONLY: 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

### Unsupported or Failed Test Cases

Unit-to-Unit Calling Queued with Target Availability Check – Traffic Channel Assignment Before Target Availability Check

Unit-to-Unit Calling Without Target Availability Check

Unit-to-Unit Calling Queued Without Target Availability Check

System Call, Short Message, Status Query, Status Update, Radio Unit Monitoring, Radio Unit Disable/Re-Enable, and Radio Check

### Optional Product Capabilities Required to Pass Test Cases

1. N/A

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### 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

Registration, Group Voice Call, Unit-to-Unit Voice Call, Broadcast Call, Announcement Group Call, Emergency Group Call, Encryption Group Call, System Call, Radio Unit Monitoring, and Transmitting Subscriber Forced Preemption.

#### 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**

November 28, 2019

Date Signed



Vendor's Authorized Representative Signature

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Vendor's Authorized Representative Printed Name

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