

Project 25 Compliance Assessment Program
SDOC - SEPURA – MDT-500-2
April 04, 2022 [Date submitted or resubmitted to P25 CAP]

SUBSCRIBER PRODUCT INFORMATION

Subscriber Info	Detail
Model Name:	MDT-500-2
Tested Software Versions:	9999 986 95481
Hardware Capabilities/Options & Software Options:	700/800 MHz Band, Head unit, Microphone

Test case results and updated software versions for this model can be found in the Summary Test Report identified below.

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 – July 2017	Includes August 2016 P25 CAP Test Requirements; Adds TDMA performance and interoperability testing and trunked supplementary data testing
	P25-CAB-CAI_TEST_REQ - October 2018	Includes all July 2017 P25 CAP Test Requirements; Adds minor updates to conventional interoperability testing due to TIA standard update

SUMMARY TEST REPORT IDENTIFIER¹

Summary Test Report (STR) Identifier:	STR - SEPURA - SUBSCRIBER
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CONTACT INFORMATION

Vendor Info	Details
Vendor Name:	Sepura PLC
Vendor Website URL:	www.sepura.com
P25 CAP Contact Name:	John Slater
P25 CAP Contact Phone:	44 (0) 1223 877 357
P25 CAP Contact Email:	John.Slater@sepura.com

¹ 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'.

Project 25 Compliance Assessment Program
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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.

	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.
X	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.

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. Receiver does not support Standard Simulcast

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. All requirements not supported. The subscriber unit does not support Trunked Subscriber mode – FDMA.

**Project 25 Compliance Assessment Program
SDOC - SEPURA – MDT-500-2**

April 04, 2022 [Date submitted or resubmitted to P25 CAP]

TRUNKING PERFORMANCE - TDMA

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: 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), Frequency Deviation for H-CPM, Modulation Fidelity, Symbol Rate Accuracy, H-CPM Logical Channel Power measurements, and H-CPM Channel Time Alignment.

Unsupported or Failed Requirements

1. All requirements not supported. The subscriber unit does not support Trunked Subscriber mode – TDMA.

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. These test cases are unsupported:
 - Emergency Call,
 - Unit-to-Unit Voice Call,
 - Unit-to-Unit Voice Call – Receiving Units also in Monitor Mode,
 - Encryption,
 - Call Alert,
 - Radio Check,
 - Message Update,
 - Status Update,
 - Status Query,
 - Radio Unit Monitor

Optional Product Capabilities Required to Pass Test Cases

1. None

Project 25 Compliance Assessment Program
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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

1. These test cases are unsupported:
 - Emergency Call,
 - Unit-to-Unit Voice Call,
 - Unit-to-Unit Voice Call Co-Channel Interference Suppression by FNE,
 - Unit-to-Unit Voice Call – Receiving Units Also in Monitor Mode,
 - Encryption,
 - Accept Any NAC in Normal and Selective Squelch Mode – SU Group Call,
 - Call Alert,
 - Radio Check,
 - Message Update,
 - Status Update,
 - Status Query,
 - Radio Unit Monitor

Optional Product Capabilities Required to Pass Test Cases

1. None

**Project 25 Compliance Assessment Program
SDOC - SEPURA – MDT-500-2**

April 04, 2022 [Date submitted or resubmitted to P25 CAP]

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. These test cases are unsupported:

- Emergency Call
- Unit-to-Unit Voice Call
- Encryption
- Emergency Alarm to Dispatch and/or other Monitoring Console
- Call Alert
- Radio Check
- Radio Unit Inhibit
- Radio Unit Uninhibit
- Message Update
- Status Update
- Status Query
- Radio Unit Monitor

Optional Product Capabilities Required to Pass Test Cases

1. None

TRUNKED SUBSCRIBER UNIT INTEROPERABILITY – FDMA

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.

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

Unsupported or Failed Test Cases

1. The subscriber unit does not support Trunked Subscriber mode – FDMA

Optional Product Capabilities Required to Pass Test Cases

1. The subscriber unit does not support Trunked Subscriber mode – FDMA

Project 25 Compliance Assessment Program
SDOC - SEPURA – MDT-500-2
April 04, 2022 [Date submitted or resubmitted to P25 CAP]

TRUNKED SUBSCRIBER UNIT INTEROPERABILITY – TDMA

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

2. The subscriber unit does not support Trunked Subscriber mode – TDMA

Optional Product Capabilities Required to Pass Test Cases

2. The subscriber unit does not support Trunked Subscriber mode – TDMA

Project 25 Compliance Assessment Program
SDOC - SEPURA – MDT-500-2
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SIGNATURE AND DATE



04/04/2022

Date Signed

Vendor's Authorized Representative Signature

P G Tindall

Vendor's Authorized Representative Printed Name

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