Simulates Recorder Interface at CWP, GRS and Recorder

Supports ED137-B Volume 4 Version

Simulates Recorder Interface for both Air-to-Ground and Ground-to-Ground Calls

Simulates Recorder Interface on Multiple CWPs and Radios

Codecs Support includes G711 A-law, Mu-law and G729

UDP, TCP, & Interleaved RTSP

Automation of PTT and Squelch Operations on AG Recording Sessions

Performance and Load Testing

Call Record Data of Each Session Saved in CSV Format

Automation, Remote Access, and Schedulers

**MAPS™ ED137 Recorder**

**Overview**

Air traffic control centers are required to provide continuous "ground/ground" and "ground/air" voice communication recordings with synchronized flight related data, for establishing “air traffic incident” chronology, replay, improving safety, audits, statistics, and training purposes.

ED137/4B defines interoperability standards for the next generation VoIP Air Traffic Recorder. These next generation recorders are specially designed for all traffic control towers and centers to simplify the recording, archiving, and playback of voice communications.

GL’s MAPS™ ED137 Recorder (PKS117) can simulate Recorder interface for both Air-to-Ground and Ground-to-Ground calls at CWP, GRS and Recorder endpoints as per ED-137/4B, as defined under EUROCAE (European Organization for Civil Aviation Equipment) Working Group 67.

MAPS™ ED137 Recorder supports Real Time Streaming Protocol (RTSP) to establish, terminate and maintain media sessions to deliver media to recording servers. The software not only provides complete control over call scenarios to be tested, but also the ability to customize the network parameters for signaling and VoIP traffic. It has the capability of generating more than hundreds of recording sessions to verify performance and load testing.


**Features**

- Emulates ED-137/4B Recorder interface at CWP, GRS and Recorder endpoints
- Simulates Recorder interface on multiple CWPs and Radios from single instance of MAPS™
- Simulates Recorder interface for both Air-to-Ground and Ground-to-Ground calls
- Supports RTP over independent UDP, independent TCP and Interleaved RTSP
- Supported codecs include G711 A-law, Mu-law and G729
- Supports simulating multiple recording servers from single instance of MAPS™
- Scripts to automate PTT and Squelch operations on AG recording sessions
- Recorder node automatically records the voice on each session to audio files
- Customization of each CWP/GRS profile to emulate an AG/GG call
- Options to easily add custom call record data properties and operations
- Up to 200 RTSP sessions can be generated or recorded simultaneously
- Call Record Data of each session is stored in CSV format
- CLI/API access for seamless integration with 3rd party test tools
- Highly flexible architecture for custom testing scenarios

---

**GL Communications Inc.**

818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878, U.S.A

(Web) [http://www.gl.com/](http://www.gl.com/) - (V) +1-301-670-4784 (F) +1-301-670-9187 - (EMail) gl-info@gl.com
**MAPS™ ED137 Recorder Use Cases**

**CASE 1: Simulate AG call recording towards Recorder**
MAPS™ ED137 Recorder can be configured as CWP and GRS to simulate AG recording sessions towards the Recorder (device under test) to test its recording interface as per ED137 volume 4.

**CASE 2: Simulate GG call recording towards Recorder**
MAPS™ ED137 Recorder can be configured as CWPs to simulate GG recording sessions towards the Recorder (device under test) to test its recording interface as per ED137 volume 4.

**CASE 3: Testing Recorder interface of CWP/VCS**
In this test case, CWP or VCS vendors can use MAPS™ ED137 Recorder (simulating Recorder) to test the Recorder interface of their equipment.

**CASE 4: Testing Recorder interface of GRS**
In this test case, MAPS™ ED137 Recorder is configured as the Recorder to receive RTSP sessions towards the GRS (DUT), thus testing Recorder interface of GRS.

---

**GL Communications Inc.**
818 West Diamond Avenue - Third Floor, Gaithersburg, MD 20878, U.S.A
(Web) [http://www.gl.com/](http://www.gl.com/) - (V) +1-301-670-4784 (F) +1-301-670-9187 - (E-Mail) [gl-info@gl.com](mailto:gl-info@gl.com)
CWP/GRS/Recorder Call Simulation

In call generation, MAPS™ is configured for the outgoing messages, while in call receive mode, it is configured to respond to incoming messages.

The message flow between the configured entities are displayed in sequence. The message decodes for any particular selected message in the flow is also displayed.

Scripts/sessions can be run repeatedly for defined number of iterations with results of the test. Multiple scripts can be run simultaneously or sequentially or randomly. Scheduler helps to run a set of scripts (test cases) at different intervals as defined by user.

MAPS™ supports performance and automated stress/load testing capabilities simulating hundreds of recording sessions over the Recorder interface. All the recorded files are automatically saved at Recorder terminal in GL’s proprietary file format (*.glw).

Profile Configurations

Each profile represents a CWP/GRS/Recorder node simulating recorder interface. The parameters involved to simulate a recorder interface include RTSP session/transport parameters, codecs and Call Data Record Properties and Operations. All these parameters can be easily configured in the XML based configuration files.

Similar to signaling, traffic configuration files allow users to customize the traffic parameters. User can create hundreds of profiles and each profile will have its own set of parameters. Profiles will also provide feasibility to add custom parameters like call data record properties.

Buyer’s Guide

PKS117 - MAPS™ ED137 Recorder (includes PKS102)
PKS118 - MAPS™ ED137 Radio (includes PKS107, & PKS102)
PKS119 - MAPS™ ED137 Telephone (includes PKS102)

Related Software

PKS102 - RTP Soft Core for RTP Traffic Generation
PKS107 - RTP EUROCAE ED137
PKS120 - MAPS™ SIP Emulator
PKS121 - MAPS™ SIP Conformance Test Suite (Test Scripts)
PKS126 - MAPS™ SIP I Emulator
PKS127 - MAPS™ SIP - IMS

For complete list of MAPS™ products, refer to https://www.gl.com/test-solutions-for-voip-air-traffic-management.html webpage.