

F-MMS-4 - Tool for testing PSTN terminals with MMS capability

Description

MMS - Multimedia Messaging Service - is the logical evolution of **SMS - Short Message Service**. This service, born for mobile networks, is now growing and also offered by many Providers for **PSTN** telephones.

CS-STRUMENTAZIONE ELETTRONICA has today developed a new tool, optional for its Telephone Testing Systems **CS8014** and **CS6015**, able to test submission and delivery of Multimedia Messages on Telephone Equipments attached on a Public Switched Network.

This tool - named **F-MMS-4** - initially based on **ETSI 202 314**, can functionally verify a correct message delivery, from Central Office Service Center, simulated by Telephone Testers, to the telephone under test and viceversa.

The purpose of **F-MMS-4** is to verify that delivery and submission operations occur without errors up to their natural ending.

Nevertheless, our objective is to offer to our Customers, the best possible coverage for the final testing of modern PSTN Telephones.

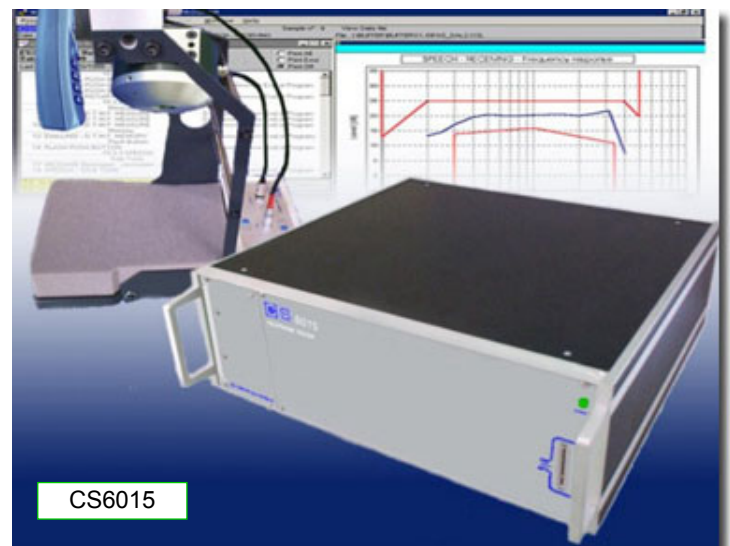
F-MMS-4 Option can substitute **SMS-4** option and can submit and delivers **SMS**, both in **ETSI** protocols 1 and 2. This feature completes all testing capabilities for a Telephone Terminal.

F-MMS-4 operates functional checks for:

- Submission
- Notification & Retrieval

In order to better satisfy our Customers, **F-MMS-4** will be supplied in two versions:

- **F-MMS-4E** installed inside **CS6015**.
For already dealt Systems, we require the customer to ship the Main Equipment back to CS.
- **F-MMS-4T** transceiver, an externally connected box.



Features

⇒ F-MMS

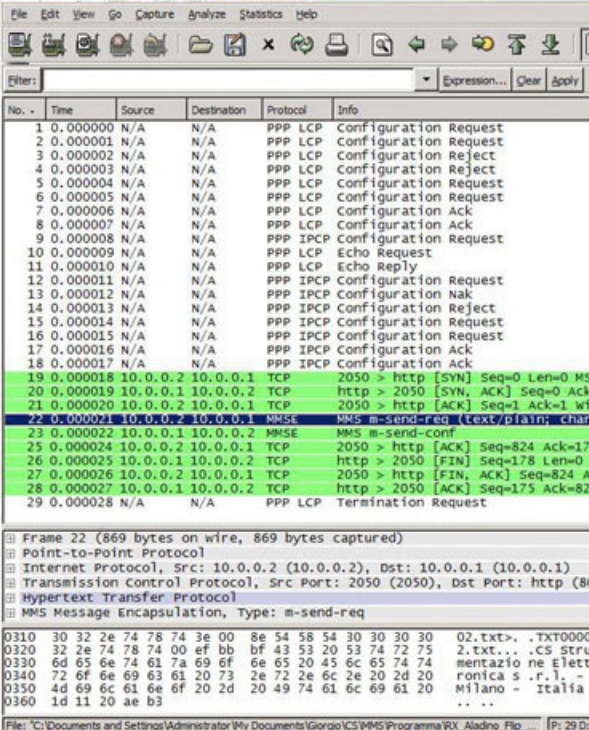
- **Server Simulation** - Send and receives F-MMS meeting Standards ETSI/OMA/3GPP.
- **Physical Layer** - setup of the physical link using AT commands.
- **PPP Parameters** - LCP (Link Control Protocol) & IPCP (Internet Protocol) handshakes.
- **DNS Server** - configurable IP address, possible use of factory setup (that usually contain the name of the F-MMS server) of the terminal under test.
- **HTTP Protocol** - using POST & GET requests.
- **MMS PDUS Transmission** - Text part of the message visualized in the WIN8014/WIN6015 result window.
- **SMS/EMS** - used for F-MMS Notifications.
- **Test Libraries** - useful to quickly build **CS8014** and **CS6015** test programs.
- **Elementary Diagnosis** - OK/NOK at the end of each sending/receiving process/protocol handshake.

⇒ SMS


- **Simulation of SMS Server** - Submit and receive SMS meeting ETSI rules, in protocol 1 and 2. Libraries for other Standards on demand.
- **Enables EMS** - Extended Messages Service testing supplied in bundle.
- **Test Libraries** - useful to quickly build **CS8014** and **CS6015** test programs meeting ETSI Specifications.

Additional features

- ⇒ **Full Protocol Diagnosis** - OK/NOK for every passed layer.
- ⇒ **F-MMS-4** can offer, as an optional feature, the possibility to diagnose every layer handshake. Every data stream can be saved in a pcap file format that can be analyzed through with a protocol sniffer such as ETHEREAL. Every received/transmitted packet can be analyzed and you can extract and verify the structure, the headers, all fields that compose the packets and finally PPP/IP/TCP checksum.
- ⇒ The PLUS version is available with all the features described in the following table (TAB1).
- ⇒ DEVELOPER versions will be soon available as an upgrade of the PLUS version.



Simple MMS message received



Receiving process analysis

TAB 1)

CS8014/CS6015 → TE			TE → CS8014/CS6015		
F-MMS-4 Transmission	Ver.PLUS	Ver.DEV.	F-MMS-4 Reception	Ver.PLUS	Ver.DEV.
MMS editable text	✓	✓	Reception of composable text message	✓	✓
MMS fixed text	✓	✓	Reception of composable Multimedia Message (Complete SMIL)	✓	✓
Composable Multimedia Message (Complete SMIL)	✗	✓			
Fixed Multimedia Message (Complete SMIL)	✓	✓	Further Notifications	✗	TBD
Single Notification SMS	✓	✓			
Extended Notification SMS	✗	✓	Configurable TCP Ports (MMS/SMS)	✓	✓
Configurable TCP Ports (MMS/SMS)	✓	✓			
Name resolution through DNS	✓	✓	Name resolution through DNS	✓	✓
PPP/LCP/IPCP Handshake	✓	✓			
Data transfer through TCP/HTTP/MMSE	✓	✓	Data transfer through TCP/HTTP/MMSE	✓	✓
Hex/Ascii LOG files	✗	✓			
PCAP files	✓	✓	PCAP files	✓	✓
F-MMS Version	1.0	1.0			