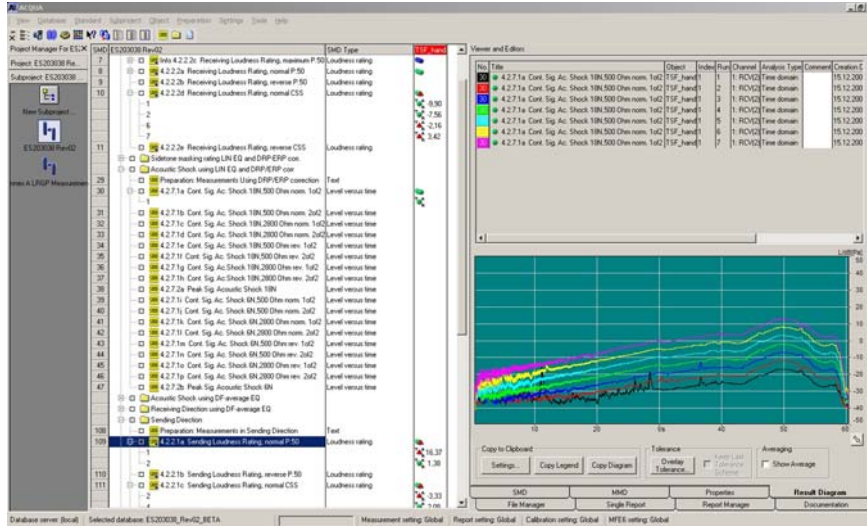


**ES 203 038
 (Code 6741)**

ETSI ES 203 038, Analog Phones



ES 203 038 Measurement Tree and Result Diagram in Analysis System ACQUA

Overview

The ETSI standard ES 203 038 has been produced in order to update the contents of initial standards for PSTN, e.g. TBR 38. In particular, the update aims to benefit from recent improvements in test methods and test equipments.

ES 203 038 defines requirements for new test methods based upon the use of HATS (head and torso simulators) and new tests signals. In an annex, requirements for previous tests methods and test signals are given in order to be used for analyzing terminals designed with the LRGP method.

ES 203 038 is also intended for handsets with radio link (e.g. DECT). In its current release, no new measurements were added except limitation of acoustic shock (as safety requirement). ES 203 038 only specifies the technical characteristics for handset telephony.

DESCRIPTION

The test specifications required by ETSI ES 203 038 were implemented by HEAD acoustics into a measurement standard for the advanced communication quality analysis system ACQUA. The measurements can be modified or extended if required in order to conduct additional tests. The tests can be arranged in any way to create individual test sequences.

In conjunction with the analysis system ACQUA and the measurement front end MFE III, the ES 203 038 test suite with its predefined measurement descriptors and automated test sequences allows the fast and easy acquisition, analysis and documentation of measurement data.

APPLICATIONS

- **Automated analysis of analog phones** (handset) according to ETSI standard ES 203 038 (Version 1.1.1, 2009-04)

MEASUREMENTS

The measurements included in the ES 203 038 test suite are summarized in the following list (numbering according to ETSI standard):

- 4.2.1.1 Sending Sensitivity
- 4.2.1.2 Receiving Sensitivity
- 4.2.2.1 Sending Loudness Rating (SLR)
- 4.2.2.2 Receiving Loudness Rating (RLR)
- 4.2.3 Sidetone (STMR)
- 4.2.4.1 Sending distortion
- 4.2.4.2 Receiving distortion
- 4.2.5.1 Sending linearity
- 4.2.5.2 Receiving linearity
- 4.2.6.1 Sending noise
- 4.2.6.2 Receiving noise
- 4.2.7.1 Acoustic shock continuous signal
- 4.2.7.2 Acoustic shock peak signal
- 4.2.8 Instability
- 4.2.9 Echo Return Loss (ERL)
- Annex: Measurements acc. to TBR 38

SYSTEM REQUIREMENTS

ES 203 038 requires the following system components:

- **ACQUA** Advanced Communication Quality Analysis System as one of the following versions (2.4.200 or later):
 - Standard (Code 6810)
 - Workplace (Code 6830, for analysis only)
 - Compact (Code 6860.xx)
- **HMS II.3** HEAD Measurement System (Code 1230);
 - Note: Pinna Type 3.3 or 3.4 can be used (both pinna types are available, please specify when ordering)*

- **HHP III** Handset Positioning Mechanism (Code 1400)
- **MFE III.1** Measurement Front End, analog, incl. line simulation (Code 6201); alternatively, MFE III.3 (Code 6205) can be used
- **Surge Generator** according to IEC 61000-4-5 (not available from HEAD acoustics), only required for acoustic shock peak signal measurement

DELIVERY

- **ES 203 038** (Code 6741), delivered on CD as ACQUA database
- **Keyfile** on CD
- **Manual** as PDF on CD

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