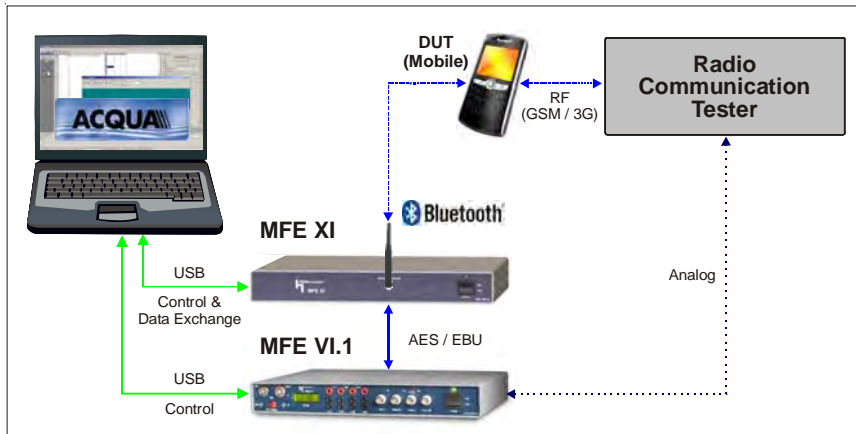


DATA SHEET

HQS-Bluetooth-Source (Code 60001)

**HEAD acoustics Quality Standard,
Bluetooth® Source Devices**



Example configuration: mobile phone tests with ACQUA, MFE VI.1, MFE XI, Radio Communication Tester

Overview

HQS-Bluetooth-Source is a quality standard developed by HEAD acoustics for analyzing speech and audio quality performance of Bluetooth® audio gateways (e.g. cellular/mobile phone).

This standard ensures compatibility of Bluetooth® enabled mobile devices with accessories attached to these devices such as Bluetooth® connected speakerphones or headsets.

This data sheet gives an overview of the test signals and measurement descriptors used by the standard as well as the necessary system requirements.

TEST SIGNALS

- Composite source signals (CSS)
- Artificial voice
- Speech sequences
- Special noise sequences
- CSS combinations for double talk simulation

MEASUREMENTS

- Delay Sending/ Receiving Direction
- Junction Loudness Rating - Sending/ Receiving
- Junction Loudness Rating - Sending/ Receiving P.50
- Junction Loudness Rating - Receiving VCC
- Linearity in Sending/ Receiving Direction
- Linearity in Receiving Direction P.50
- Sending/ Receiving Sensitivity Frequency Response
- One Way Speech Quality in SND/ RCV (PESQ) ENG
- One Way Speech Quality in SND/ RCV (PESQ)-6dB ENG
- One Way Speech Quality in SND/ RCV (PESQ) GER
- One Way Speech Quality in SND/ RCV (PESQ) -6dB GER
- One Way Speech Quality in SND/ RCV (TMOS)
- One Way Speech Quality in SND/ RCV (TMOS) -6dB
- Noise Cancellation Test in Sending short/ long burst
- AGC Test RCV -14 dBV
- AGC Test SND -4.7 dBV

- AGC Test SND -14.7 dBV
- Switched Level SND/ RCV, 5 dB
- Switched Level SND/ RCV, 10 dB
- Switched Level SND/ RCV, 15 dB
- Echo Loss 20 dB Att. CSS/ P.50
- Echo Loss 40 dB Att. CSS/ P.50
- Calculation: Variation of SRW Echo Loss CSS/ P.50
- ITU-T P.340 Attenuation RCV - Double Talk
- ITU-T P.340 Attenuation SND - Double Talk
- Bluetooth Quality Pie

SYSTEM REQUIREMENTS

HQS-Bluetooth-Source requires the following system components:

- **ACQUA** Communication Analysis System as one of the following versions (version 2.5.100 or later):
 - Full-licence (Code 6810)
 - Workplace (Code 6830, for post-analysis and documentation only)
 - Compact Systems (Code 6860.xx)
- **ACOPT 10:** TOSQA2001, Telecommunications Objective Speech Quality Assessment (Code 6820)
- **ACOPT 16:** PESQ, Perceptual Evaluation of Speech Quality (Code 6836).
- **ACOPT 20:** Quality Pie (Code 6843)
- **MFE VI.1** Measurement Front End (Code 6462)
- **MFE XI** Universal Bluetooth® Access Point (Code 6482).
- **GSM/UMTS Radio Communication Tester** (not provided by HEAD acoustics)

DELIVERY ITEMS

- **HQS-Bluetooth-Source** Measurement standard, delivered as ACQUA database on CD (Code 60001)
- **Keyfile** (for ACQUA 2.5.100) or **V2C file** (for ACQUA 3.0.100 or later) on CD
- **Manual** as PDF on CD

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