Geneva, 11 February 2014

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| **Telecommunication Standardization Bureau** |  |
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| Ref:  Tel:  Fax:  Email: | **TSB Circular 82**  +41 22 730 5780  +41 22 730 5853  [conformity@itu.int](mailto:conformity@itu.int) | - To Administrations of Member States of the Union;  - To ITU-T Sector Members;  - To ITU-T Associates;  - To ITU-T Academia  **Copy:**  - To the Chairmen and Vice-Chairmen of ITU-T Study Groups;  - To the Director of the Radiocommunication Bureau;  - To the Director of the Telecommunication Development Bureau |

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| **Subject:** | **ITU-T testing event on performance assessment of vehicle-mounted mobile phones in conjunction with hands-free terminals according to Recommendations ITU-T P.1100 and ITU-T P.1110, Geneva, Switzerland, 12-16 May 2014** |

Dear Sir/Madam,

1. I would like to inform you that the International Telecommunication Union (ITU) is organizing a testing event on **“**Performance assessment of vehicle-mounted mobile phones in conjunction with hands-free terminals (HFT) according to Recommendations ITU-T P.1100 and ITU-T P.1110” from 12 to 16 May 2014 at ITU Headquarters in Geneva, Switzerland.
2. The event will test and evaluate short-range wireless (SRW) transmission performance between mobile phones and a SRW access point according to specifications in Chapter 12 of Recommendations ITU-T P.1100 and ITU-T P.1110.
3. This event will be open to car manufactures/HFT suppliers, mobile service operators and mobile phone vendors. Mobile phones to be tested will be identified and provided by participants. Detailed testing reports will be provided to participants and an anonymous report of testing results will be submitted to [ITU-T Study Group 12 (Performance, QoS and QoE)](http://www.itu.int/en/ITU-T/about/groups/Pages/sg12.aspx) to improve Recommendations ITU-T P.1100 and ITU-T P.1110.
4. The participation fee for this testing event will be from Euro 6,000 per company which will include at least eight tests (see Annex A for details of participation fee and benefit).
5. The description of the event’s goals, terms and conditions of participation is found in Annex A. An example of a detailed testing report is found in Annex B. All information about the event will be made available on the event’s web page (<http://itu.int/go/test-event>).
6. In order to arrange necessary preparation of the event, I would appreciate if you would suggest mobile phones for testing and confirm your participation as soon as possible and **preferably by 21 March 2014.**
7. Payment of participation fee must be made to the ITU bank account **no later than 4 April 2014**. Details of making payment to ITU will be provided upon request.
8. For questions and/or interest in participation, please contact Mr Denis Andreev by email to [conformity@itu.int](mailto:conformity@itu.int).

Yours faithfully,

Malcolm Johnson  
Director of the Telecommunication  
Standardization Bureau

Annexes: 2

**Annex A**

**ITU-T testing event on performance assessment of vehicle-mounted mobile phones in conjunction with hands-free terminals according to Recommendations ITU-T P.1100 and ITU-T P.1110**

**Goal of the testing event**

* The audio performance of state of the art mobile phones will be tested with the Short Range Wireless (SRW) connections that are typically used in conjunction with vehicle-mounted hands-free terminals (HFT) according to chapter 12 of Recommendations ITU-T P.1100 (“Narrow-band hands-free communication in motor vehicles”) and ITU-T P.1110 (“Wideband hands-free communication in motor vehicles”). The SRW connection will be provided through an SRW Access Point supplied by the selected testing lab (TL).
* The test results will provide important information for car manufacturers, HFT system suppliers, mobile network operators and mobile phone vendors about whether mobile phones are configured properly.
* Discussions of the test results between the automotive and the mobile phone industry should improve the voice quality of vehicle-mounted hands-free phones.
* Anonymized test results and information on the experiences gained at the event will be fed back into ITU-T Study Group 12 to improve Recommendations ITU-T P.1100 and ITU-T P.1110.

**Terms and conditions to participate in this testing event**

* Participation is open to companies from **the automotive industry, hands-free terminal (HFT) suppliers, mobile network operators and mobile phone vendors.**
* Participation fees start at 6000 € which includes
  + Eight tests with a two-page report per test summarizing detailed test results including a “Quality Pie Chart” as specified in Recommendation ITU-T P.505. An example of such a report is shown in Annex B of this document.
  + The evaluation of one mobile phone in both modes, narrowband and wideband, will be considered as two tests.
  + In cases where more than eight tests are required (8 + N tests), the participation fee increases accordingly. The cost for each additional test (narrowband or wideband) including documentation (test report) is 500 €, thus the participation fee increases to 6000 € + N x 500 €.
  + An analysis compiling and comparing results of all mobile phones tested in this event will be made available in an “Anonymized Test Report”. “Anonymized” means that the model, software version, company name or brand of the mobile phone is not mentioned.
  + Suggestions for improvement of the devices tested.
* The full amount of the participation fee must be paid to ITU **no later than 4 April 2014**. Details of how to make the payment will be provided upon request.
* Car manufacturers, HFT suppliers and mobile network operators will receive the two-page test report of ***all*** mobile phones tested in this event containing the model, software version, company name and brand of the mobile phones. ITU and the TL will coordinate among participants to avoid overlapping requests for the same model of phone.
* A mobile phone vendor participant will only receive the ***detailed*** test results of their own mobile phone(s) with important information about the current performance of each of their device(s) and hints for potential improvement. ITU and the TL will not provide the ***detailed*** testing results of mobile phones provided by one mobile phone vendor to other mobile phone vendor(s).Car manufacturers, HFT suppliers or mobile network operators as participants are not allowed to share the ***detailed*** test results of a mobile phone of a particular vendor with other mobile phone vendor(s).
* ITU and the TL will not make the names of the participating companies publicly available unless the company agrees.
* Participants are allowed to advertise publicly which mobile phones (model, software version, company name and brand) they recommend (positive and negative).
* The mobile phones to be tested must be provided by the participants to ITU in Geneva in due time, preferably one week before the event. As a specialized agency of the United Nations, ITU is exempt from all customs duties under the International Convention on the Privileges and Immunities of the Specialized Agencies. Please note that all goods for the ITU must be routed ***via Geneva***. In agreement with the Swiss Customs administration in Geneva, customs clearance can only be affected at Geneva. Shipment address to ITU will be provided upon request.
* In cases in which a participant cannot provide a mobile phone, the TL will endeavor to source a device for testing. If a network operator or mobile phone vendor loans a mobile phone to this testing event, the detailed testing result of the loaned device will be made availablefor free to that company as well asto all car manufacturers, HFT suppliers and mobile network operator participants***.***
* The TL will test the mobile phones of one specific mobile phone vendor during a specific time slot (one mobile vendor per dedicated time slot), and hold conference calls to discuss the test results with participants either daily or per mobile phone vendor as appropriate.
* Car manufacturers, HFT suppliers and network operator participants are invited to witness the tests for all phones and participate in discussions at any time, either in person or via conference call. A specific mobile phone vendor participant is only invited to witness the tests during the dedicated time slots when their devices are tested, and participate only in discussions relevant to their devices, either in person or via conference call.

**Annex B**

**An example of detailed testing report**

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| |  |  | | --- | --- | | **Manufacturer:** | **ABC** | | **Device name:** | **XYZ** | | **IMEI:** | **12345678910** | | **SW version:** | **1.2.3.4** | | **Audio Mode:** | **Wideband** | | **Testing Date** | **MM:DD:YY** |     ITU-T P.505 “Quality Pie” chart for the wideband Bluetooth test results of the **ABC XYZ** |

**Result Summary based on Adapted and Extended ITU-T P.1110 Test Cases (clockwise)**

* As expected the AT+NREC=0 command is confirmed with “OK”.
* The setting of the phone’s volume control does not influence the measured JLR in receiving direction, except if the “Remote Volume Control (RVC)” feature is not supported by the HFT. In this case the phones volume control inserts up to 13 dB attenuation depending on the selected volume setting.
* AGC behaviour can be detected in both transmission directions.
* The noise reduction is still active although the phone responded with “OK” to the AT command “AT+NREC=0”.
* The echo canceller is switched off as required.
* The double talk test (“DT”) shows a transparent transmission in both directions.
* The sending path is slightly attenuated by 2.2 dB (“JLR (SND)”). This is within the recommended range of 0 ± 3 dB.
* The tolerance scheme for the sending frequency response (“SFR”) is not met. However, the very slight violation can be neglected (see WB Results Annex).
* The listening speech quality in sending direction is sufficiently high (4.1 MOS-LQOw).
* The JLR of 1.6 dB measured in receiving direction (“JLR (RCV)”) is slightly too high but still within the recommended range of 0 ± 3 dB.
* The tolerance scheme for the receiving frequency response (“RFR”) is not completely met. However, the very slight violation can be neglected.
* The listening speech quality in receiving direction is sufficiently high (4.1 MOS-LQOw).

**Wideband Results**

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| **Sending Frequency Response (SFR)** | **Receiving Frequency Response (RFR)** |
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| Minimum distance -1.0 dB at 3550 Hz  Junction Loudness Rating (JLR SND): 2.2 dB  MOS-LQOw SND: 4.1 | Minimum distance -0.6 dB at 3550 Hz  Junction Loudness Rating (JLR RCV): 8.7 dB  MOS-LQOw RCV: 4.1 |
| **AGC detection in sending direction** | **AGC detection in receiving direction** |
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| **Noise Reduction test**  **(Stationary noise)** | **Echo Canceller test**  **(20 dB simulated echo path)** |
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| NR is active | EC is deactivated (19.9 dB) |

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