Radio Quality Metrics

These lists are for GSM/UMTS only. Test cases might be different on CDMA. CDMA lists will be provided later after Microsoft evaluates CDMA platforms.

BTS Metric – Priority 1 Tests

This is part of BSP Test Suite (BTS), designed to test the basic BSP radio/RIL functionality, and used as BSP drop radio/RIL validation test tool. A failed case means “reject-drop” and the drop may not be integrated to Microsoft AKU.

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| --- | --- | --- | --- | --- | --- |
| Area | Case Name | Case ID | Description | Iteration | Expected Pass Rate |
| Voice | TSP\_OutNormal | 101 | Outgoing call to the dialup server. | 10 | 100% |
| TSP\_InNormal | 105 | Outgoing call to the dialup server, sending DTMF, incoming call from the dialup server. | 10 | 100% |
| Data | DAT\_Download | 201 | Download data. | 1 | 100% |
| DAT\_Upload | 202 | Upload data. | 1 | 100% |
| SMS | SMS\_SendRecv | 301 | Send short messages to self. | 10 | 100% |
| SMS\_LongMessage | 302 | Send long (>160) messages to self. | 2 | 100% |
| Radio | TSP\_SetEquipmentState | 801 | Turn radio off and on. | 1 | 100% |

Test command line for BTS metrics:

tux -o -d cellulartest -c"-metrics bts -dtmfds"

LTK Metric – Priority 2 Tests

This is part of Windows Mobile “7” Test Kit, designed to ensure consistent cellular user experience on all Windows Mobile 7 devices. A failed case means “stop-ship” and the device may not be released to market.

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| --- | --- | --- | --- | --- | --- |
| Area | Case Name | Case ID | Description | Iteration | Expected Pass Rate |
| Voice | TSP\_OutNormal | 101 | Outgoing call to the dialup server. | 100 | 95% |
| TSP\_InNormal | 105 | Outgoing call to the dialup server, sending DTMF, incoming call from the dialup server, answer the call. | 100 | 95% |
| TSP\_InNoAnswer | 106 | Outgoing call to the dialup server, sending DTMF, incoming call from the dialup server, not answer the call. | 20 | 95% |
| TSP\_Reject | 107 | Outgoing call to the dialup server, sending DTMF, incoming call from the dialup server, reject the call. | 20 | 95% |
| TSP\_HoldUnhold | 109 | Outgoing call to the dialup server, hold the call, unhold the call. | 20 | 95% |
| TSP\_Conference | 110 | 2-way conference call with the dialup server. | 20 | 95% |
| TSP\_2WayCall | 112 | 2-way call with the dialup server. | 20 | 95% |
| Data | DAT\_Download | 201 | Download data. | 1 | 100% |
| DAT\_Upload | 202 | Upload data. | 1 | 100% |
| SMS | SMS\_SendRecv | 301 | Send short messages to self. | 50 | 95% |
| SMS\_LongMessage | 302 | Send long (>160) messages to self. | 10 | 95% |
| SIM | SIM\_PhoneBookRead | 401 | Read SIM contacts. | 1 | 100% |
| Mix | Complex\_VoiceData | 701 | Voice data interaction: suspend/resume on 2G, simultaneous voice and data on 3G. | 1 | 100% |
| Complex\_VoiceSMS | 702 | Voice SMS interaction. | 1 | 100% |
| Radio | TSP\_SetEquipmentState | 801 | Turn radio off and on. | 5 | 100% |

Test command line for LTK metrics:

tux -o -d cellulartest -c"-metrics ltk -dtmfds"

Stress Metric – Priority 3 Tests

This will be provided to all of Windows Mobile 7 partners (IHVs, OEMs, and MOs) as an optional but highly recommended test, and will be run regularly by Microsoft to validate builds and ensure cellular quality and stability. A failed case will be investigated with partners if issue is determined to be external to Microsoft. If a fix is not possible prior to release, the failure will be noted as a known issue of the product.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Area | Case Name | Case ID | Description | Iteration | Expected Pass Rate |
| Voice | TSP\_OutNormal | 101 | Outgoing call to another device. | 400 | 95% |
| TSP\_OutBusy | 102 | Outgoing call to a busy line. | 4 | 100% |
| TSP\_OutNoAnswer | 103 | Outgoing call to another device, the other device doesn’t answer. | 4 | 100% |
| TSP\_OutReject | 104 | Outgoing call to another device, the other device rejects the call. | 4 | 100% |
| TSP\_InNormal | 105 | Outgoing SMS to another device, incoming call from the other device, answer the call. | 400 | 95% |
| TSP\_InNoAnswer | 106 | Outgoing SMS to another device,, incoming call from the other device, not answer the call. | 80 | 95% |
| TSP\_InReject | 107 | Outgoing call to the dialup server, sending DTMF, incoming call from the dialup server, reject the call. | 80 | 95% |
| TSP\_LongCall | 108 | Long call to another device. | 4 | 100% |
| TSP\_HoldUnhold | 109 | Outgoing call to the dialup server, hold the call, unhold the call. | 80 | 95% |
| TSP\_Conference | 110 | 2-way conference call with the dialup server. | 80 | 95% |
| TSP\_HoldConference | 111 | Hold and unhold the 2-way conference call with the dialup server. | 4 | 100% |
| TSP\_2WayCall | 112 | 2-way call with the dialup server. | 80 | 95% |
| Data | DAT\_Download | 201 | Download data. | 4 | 100% |
|  | 202 | Upload data. | 4 | 100% |
| DAT\_GPRSSequentialAPNsTest | 203 | Download data using sequential multiple APN. | 4 | 100% |
| DAT\_GPRSMultipleAPNsTest | 204 | Download data using concurrent multiple APN. | 4 | 100% |
| SMS | SMS\_SendRecv | 301 | Send one instruction message to another device, and receive short messages from the other device. | 200 | 95% |
| SMS\_LongMessage | 302 | Send one instruction message to another device, and receive long (>160) messages from the other device. | 40 | 95% |
| SIM | SIM\_PhoneBookWRD | 402 | Read, write, delete SIM contacts. | 4 | 100% |
| SIM\_SMSWRD | 403 | Read, write, delete SIM SMS messages. | 4 | 100% |
| Mix | Complex\_VoiceData | 701 | Voice data interaction: suspend/resume on 2G, simultaneous voice and data on 3G. | 4 | 100% |
| Complex\_VoiceSMS | 702 | Voice SMS interaction. | 4 | 100% |
| Radio | TSP\_SetEquipmentState | 801 | Turn radio off and on. | 20 | 100% |

Test command line for Stress metrics (using Dialup Server):

s tux -o -d cellulartest -c"-metrics stress -dtmfds"

Test command line for Stress metrics (P2P mode):

Device 1: tux -o -d cellulartest -c"-user2"

Device 2: s tux -o -d cellulartest -c"-metrics stress"