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Release Note 3.2.70 for GSM Signaling

New features compared to version 3.2.60:

KS200 related:

- Support of circuit switched redirection procedure from GSM to GSM
- Support of circuit switched redirection procedure from GSM to an external device. Possible destination RATs are LTE, WCDMA, TD-SCDMA and GSM
- Discontinuous transmission parameter for downlink direction (DTX DL)
- 'Echo delay' time can be specified for looped back speech frames
- BSIC parameter can be specified for each GSM neighbor cell
- Support of 'PDP context deactivation by network' procedure
- Support of 'Classmark 3 request' and 'Early classmark sending'
- Segment indication for outgoing SMS with more than 160 character

KS210 related:

- Circuit switched BER measurement with new measure mode 'BFI'
- 'Timing advance' configurable for circuit switched and packet switched connections
- Reject causes for location update- and attach procedure configurable
- Parameter 'Service Center Time Stamp' for outgoing SMS configurable
- Cell barring parameter to block the GSM cell for mobile access
- Initial power reduction parameter can be configured
- Timer T3192 (TBF release timer) can be configured

Bug fixes compared to version 3.2.60:

- 'Band Indicator' is set correctly after dual band handover
- After redirection procedure to GSM, RAU procedure is no longer rejected
- Edge RLC downlink PDU formatting corrected
- SRQ neighbor cell reporting for LTE neighbor cells is working
- RSCP and Ec/No neighbor cell reporting for WCDMA neighbor cells is working
- GSM Sig PRESET no longer switches BLER measurement to continuous mode
- Frequency hopping works for packet switched connections, if the BCCH ARFCN is included in the hopping list
- 'Cell Identity' changes are handled correctly during circuit switched connections
- Data Source 'Speech' works properly after 'Signal Off', if 'Data Application Unit' board is installed

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Known issues:

- Circuit switched 'Data Source' changes during 'Call Established' state are not working
- Frequency dependent correction tables cannot be deactivated while the GSM cell is in ‘Signal On’ state
- RSRQ neighbor cell reporting for LTE neighbor cells is not working
- Stack instabilities when receiving long SMS with more than 8 segments
- GSM neighbor cell measurement reports with the same ARFCN but different BSICs are not handled correctly

Known restrictions:

- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- Parameter ‘Enable Speech Codec’ must be selected in GSM Signaling state ‘OFF’ before ‘Data Source’ can be switched to ‘Speech’
- When a circuit switched call is established with ‘Data Source’ ‘Speech’, traffic parameters like ‘Traffic Mode’ and AMR parameters cannot be reconfigured
- After an inter RAT handover from WCDMA to GSM, packet connections only work if the mobile has performed an Attach- or Routing Area Update procedure in GSM
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.2.60 for GSM Signaling

New features compared to version 3.2.30:

- Support of Data end to end with multiple signaling instances in parallel

Bug fixes compared to version 3.2.30:

- 'Enhanced measurement report' can be activated without configuration of neighbor cells
- Indication of 'Connection Error' is working for SMS procedures
- Routing Area Code (RAC) changes are handled correctly during packet switched connections
- 'Auto Slot Config' corrected for multislot classes 32,33,34,37,38,39,41,42,43,44,45
- 'Auto Slot Config' works for packet switched service selection SRB
- 'MT CS Fallback' procedure switches to circuit switched state ALERTING, when the mobile is ringing
- Pseudo random generator works correctly with traffic mode FRV2

Known issues:

- Sporadic problems have been observed regarding packet switched hopping if the BCCH ARFCN is included in the hopping list
- 'Cell Identity' changes are not handled correctly during circuit switched connections
- Data Source 'Speech' is not working properly after 'Signal Off', if 'Data Application Unit' board is installed

Known restrictions:

- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- Parameter 'Enable Speech Codec' must be selected in GSM Signaling state 'OFF' before 'Data Source' can be switched to 'Speech'
- When a circuit switched call is established with 'Data Source' 'Speech', traffic parameters like 'Traffic Mode' and AMR parameters cannot be reconfigured
- After an inter RAT handover from WCDMA to GSM, packet connections only work if the mobile has performed an Attach- or Routing Area Update procedure in GSM

- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.2.30 for GSM Signaling

New features compared to version 3.2.20:

KS200 related:

- Support of external message monitoring. Message recorder CMW-KT011 required.
- Support of redirection procedure from GSM to WCDMA and to TD-SCDMA
- Support of LTE mobile terminated circuit switched fallback procedure
- Neighbor cell configuration of up to 4 TD-SCDMA cells
- Inter RAT handover procedure with only one TRX board possible (CMW BASE release 3.2.20 or higher required)
- Synchronization of several signaling applications inclusive timing offset
- External time delay compensation for uplink and downlink
- Circuit switched BER measurement with new modes ‘Mean BEP’ and ’Signal Quality’
- Packet switched BER measurement with new mode ‘Mean BEP’
- Packet switched BER measurement results are calculated for each time slot individually
- Support of concatenated mobile terminated and mobile originated SMS
- Circuit switched mobile terminated release procedure with modes: Immediate/Normal
- Service category indication during eCall setup
- Additional NITZ functionality ‘Apply at Attach/Synchronize’
- Selectable response ‘Accept’, ’Reject’ and ‘Ignore’ to the circuit and packet switched connection request of the mobile
- Indication of ‘Connection Error’ for circuit- and packet switched connections
- New remote commands:
  - SENSe:GSM:SIGNaling:MSSinfo:RXPower? to query the state of the RX power indicator
  - CONFigure:GSM:SIGN:CONNection:ASConfig On|Off for the ‘Auto Slot Config’ feature
- The following GSM cell parameters are configurable:
  - Circuit switched “Enhanced Measurement Report’
  - Cell Identity
  - Timer T3122 and T3142
  - NCC Permitted
  - Cell Channel Description
  - Max Retrans
  - Cell Reselect Hysteresis
  - BEP Period2
  - (E)GPRS Downlink power control parameters: ‘P0’, ‘PR Mode’ and ‘PR Field’
  - Paging with IMSI/TMSI
  - Page Mode: ‘Normal Paging’ and ‘Paging Reorganization’

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KS210 related:

- CMR Performance measurement for AMR traffic modes
- Neighbor cell measurements during circuit switched connections
- Frequency offset for traffic channels for uplink and downlink inclusive random functionality
- Packet switched BER measurement with additional result "false USF Detection" (‘USF Duty Cycle’ setting < 100% in slot configuration editor required)
- ‘Always send RLC Data Blocks’ during packet switched connections configurable

Bug fixes compared to version 3.2.20:

- The parameter Config/Network/Cell Reselection/RxLev Access Min is updated correctly in the system information
- During AMR calls after a DL Reference Level change, the codec mode indications reported by the mobile are displayed correctly
- Packet switched SMS sending is working properly
- Inter RAT handover from WCDMA to GSM with TCH/H channels is working properly
- Voice loopback is working well after an inter RAT handover from WCDMA to GSM.
- Timeslot reconfiguration during dual band handover is working properly
- EGPRS Window Size is assigned correctly during PS Test Mode B

Known issues:

- Sporadic problems have been observed regarding packet switched hopping if the BCCH ARFCN is included in the hopping list
- Indication of ‘Connection Error’ is not working for SMS procedures
- Routing Area Code (RAC) changes are not handled correctly during packet switched connections
- Cell Identity changes are not handled correctly during circuit switched connections

Known restrictions:

- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- Parameter ‘Enable Speech Codec’ must be selected in GSM Signaling state ‘OFF’ before ‘Data Source’ can be switched to ‘Speech’
- When a circuit switched call is established with ‘Data Source’ ‘Speech’, traffic parameters like ‘Traffic Mode’ and AMR parameters cannot be reconfigured
- After an inter RAT handover from WCDMA to GSM, packet connections only work if the mobile has performed an Attach- or Routing Area Update procedure in GSM

- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.2.20 for GSM Signaling

New features compared to version 3.2.11:

KS200 related:

- RLC Throughput measurement (see GSM RX Measurements)
- 'Auto Slot Config' function, which sets the slot configuration according the multi slot class of the mobile
- Indication of mobile circuit switched codec support during call setup
- Scenario change between 'Standard cell' and 'BCCH and TCH/PDCH' possible in 'Call Established' / 'TBF Established' states
- Neighbor cell configuration for LTE, WCDMA and GSM neighbor cells
- Support of redirection procedure to LTE
- Remote command to trigger an UE positioning reset procedure
- Support of SMS over packet switched domain for incoming and outgoing SMS
- Binary SMS format supported (8bit data coding)
- Additional outgoing SMS parameter 'Coding Group', 'Message Class', 'Originator SMSC Address' and 'Originating Address'
- Parameter Packet Switched Data Source can be changed in TBF Established state

KS210 related:

- Support of audio measurements (option R&S CMW-B400B or R&S CMW-U400 required)
- Support of frequency hopping during packet switched connections
- Fading doppler frequency for internal fading simulator (additional optionkeys KE100 and KE200 required)
- AMR thresholds for AMR traffic modes
- New configure parameter 'BLER BCS Data Corruption Rate' and new BLER measurement parameter 'Corrupted blocks' and 'False ACKed Blocks'
- Circuit switched loop type 'D' and BER measurement mode 'RBER/UFR'
- Cell Reselection parameter for LTE (E-UTRAN), WCDMA (UTRAN) and GSM

Bug fixes compared to version 3.2.11:

- The timestamp of an outgoing SMS is set to the current time of the CMW
- Circuit switched half rate sub channel parameter is working properly
- Downlink dual carrier (DLDC) is working properly
- Dynamic signaling parameter reconfigurations during 'SRB connections' are working properly

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Known issues:

- The parameter Config/Network/Cell Reselection/RxLevMinAccess is only updated in the system information if a GSM Neighbor Cell is configured
- During AMR calls after a DL Reference Level change, the codec mode indications reported by the mobile are not displayed correctly
- Depending on the mobile behavior for sending PS SMS from Packet Idle Mode, the CMW may indicate a failure even though the SMS was properly sent and received by the mobile
- The remote syntax of the Fading Profile ‘HT100 (12path)’ has changed from ‘HT10’ to ‘HT100’ (command CONFigure:GSM:SIGN:FADing:FSIMulator:STANdard)
- Sporadic problems have been observed regarding packet switched hopping if the BCCH ARFCN is included in the hopping list
- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- IQ delays are not calculated correctly in scenario “IQ out – RF in”
- Parameter ‘Enable Speech Codec’ must be selected in GSM Signaling state ‘Off’ before data source can be switched to Speech
- When a circuit switched call is established with data source ‘Speech’, traffic parameter like traffic mode and AMR parameter cannot be reconfigured
- If an inter RAT handover from WCDMA to GSM is performed to a TCH/H channel then a following reconfiguration of the assigned Radio Resource (i.e. ARFCN or timeslot change) will result in a Radio Link Timeout.
- Voice loopback is not working after an inter RAT handover from WCDMA to GSM.
- After an inter RAT handover from WCDMA to GSM, packet connections only work if the mobile has performed an Attach- or Routing Area Update procedure in GSM
- Timeslot reconfiguration during Dual band handover will result in a Radio Link Timeout.
- Sporadic problems have been observed during PS Test Mode B where an incorrect EGPRS Window Size for the configured timeslot allocation is assigned.
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.2.11 for GSM Signaling

New features compared to version 3.2.10:

No new features. This is a bug fix release.

Bug fixes compared to version 3.2.10:

- Dual band handover works properly for DL Reference Levels < -104 dBm and external attenuations > 20 dB.
- Support of SUU-Signaling Unit Universal Board H200 on CMW motherboard slot A900

Known issues:

- Half rate sub channel = 1 is not working properly and must be avoided
- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- End2End transfer may sporadically stop if MCS-8 is configured as uplink coding scheme. A restart of the End2End transfer is required in this case
- Frequency hopping for packet switched connections is not implemented
- IQ delays are not calculated correctly in scenario “IQ out – RF in”
- Downlink dual carrier (DLDC) is not working
- MT SMS sporadically fails with ‘Signaling Unit Timeout’
- Dynamic signaling parameter reconfigurations during ‘SRB connections’ sporadically lead to ‘signaling timeout’
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.2.10 for GSM Signaling

New features compared to version 3.0.21:

KS200 related:

- RF Frequency Offset for uplink and downlink can be set in the signaling config menu Range: -100 kHz to +100 kHz
- 'Mixer level offset' to configure the input level of the RF uplink path for a GSM Multi Evaluation Measurement in Combined Signal Path

KS210 related:

- Additional fading profiles of internal fader in Scenario'Standard Cell Fading'
  - 12 path: TU1.5, TU3, TU25, TU50, HT100
  - 6 path: TU25
- 'Clipping counter' of internal fader to display the percentage of clipped samples

Bug fixes compared to version 3.0.21:

- Range of 'Signal/Noise Ratio' of internal fader AWGN generator reduced. The new range is -25 dB to +30 dB

Known issues:

- Half rate sub channel = 1 is not working properly and must be avoided
- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- End2End transfer may sporadically stop if MCS-8 is configured as uplink coding scheme. A restart of the End2End transfer is required in this case
- Frequency hopping for packet switched connections is not implemented
- IQ delays are not calculated correctly in scenario "IQ out – RF in"
- Downlink dual carrier (DLDC) is not working
- MT SMS sporadically fails with 'Signaling Unit Timeout'
- Dynamic signaling parameter reconfigurations during 'SRB connections' sporadically lead to 'signaling timeout'
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario 'Standard Cell Fading', frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.0.21 for GSM Signaling

New features compared to version 3.0.20:

No new features. This is a bug fix release.

Bug fixes compared to version 3.0.20:

- PDP Context Deactivation procedure works in Packet Idle Mode
- Changing the ‘TBF level’ during End2End testing is working properly
- Extended Dynamic Allocation is correctly assigned for all multislot classes
- DL Coding Scheme setting in remote mode is working properly
- Disabling VAMOS during call works properly
- ‘AMR Inband FER’ measurement works in VAMOS II Shifted SACCH mode
- Upper limit for DL reference level in scenario "Standard Cell Fading" is correct
- In Expected Nominal Power Mode ‘Manual’, the Expected Nominal Power value can be changed in state ‘TBF Established’

Known issues:

- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing must be avoided
- End2End transfer may sporadically stop if MCS-8 is configured as uplink coding scheme. A restart of the End2End transfer is required in this case
- Frequency hopping for packet switched connections is not implemented
- IQ delays are not calculated correctly in scenario “IQ out – RF in”
- In scenario ‘Standard Cell Fading’, the 'Signal/Noise Ratio' should not be set to values smaller than -25dB
- Downlink dual carrier (DLDC) is not working
- MT SMS sporadically fails with ‘Signaling Unit Timeout’
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible for setting the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.0.20 for GSM Signaling

New features compared to version 3.0.10:

KS200 related:

- Support of Data End2End testing with Data Application Unit
- Packet switched parameter ‘Extended Dynamic Allocation’ is configurable

KS210 related:

- Scenario ‘Standard Cell Fading’ for internal and external fading applications (CMW Base release V3.0.11 or higher is required and internal fading requires optionkeys KE100 and KE200)
- Circuit switched loop type ‘I’ and BER measure mode ‘AMR Inband FER’
- Cell parameter ‘Tavg/t/w’, ‘PC Meas Channel’ and ‘BEP Period’ are configurable
- Packet switched parameter ‘Incremental Redundancy’ is configurable
- Support of date and time information for the mobile (NITZ service)
- Support of authentication settings

Bug fixes compared to version 3.0.10:

- Handling of circuit switched test loop command during iRAT handover procedure corrected
- GSM band change in Signal On state in scenario 'BCCH and TCH/TDCH' is working properly
- Timeslot 0 can no longer be activated with remote commands
- SACCH FER measurement works at Hyper Frame wrap around
- The ‘Measurement slot UL’ setting is corrected automatically during connection setup and during timeslot reconfiguration procedures in circuit- and packet switched connections
- An MT SMS while an MO SMS is ongoing works properly

Known issues:

- Dual band handover is not possible during data End2End testing
- Circuit switched actions during End2End testing are to be avoided
- PDP Context Deactivation procedure sporadically fails after End2End testing
- Changing the ‘TBF level’ during End2End testing is not working properly
- Frequency hopping for packet switched connections is not implemented
- IQ delays are not calculated correctly in scenario “IQ out – RF in”
- NITZ service is not working properly with some kind of mobiles
- In scenario ‘Standard Cell Fading’, the 'Signal/Noise Ratio' should not be set to values smaller -25dB

- Downlink dual carrier (DLDC) is not working
- MT SMS sporadically fails with ‘Signaling Unit Timeout’
- PDP Context Deactivation procedure in Packet Idle Mode does not work
- Switching Off VAMOS in ‘Call Established’ state results in signaling timeout, if VAMOS TSC is not equal BCC
- ‘AMR Inband FER’ measurement does not work in VAMOS II Shifted SACCH mode
- **Restriction for Scenario 'Standard Cell Fading':** In Scenario ‘Standard Cell Fading’, frequency-dependent attenuation tables for the downlink direction must not be activated
- **Restriction for FER SACCH measurement:** The user is responsible to set the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 3.0.10 for GSM Signaling

New features compared to version 2.1.60:

KS200 related:

- New scenario "BCCH and TCH/PDCH" providing separate downlink paths for BCCH and TCH/PDCH (two RF RTX boards are required)
- Extended RGSM channels (ARFCNs 940 – 954) for BCCH and TCH added in GSM900 band
- Event Log added reporting info-, warning- and error events
- Inter RAT handover from WCDMA to GSM with more flexible user interface
- Improved RX measurement handling with one view for BER and BLER measurements

Bug fixes compared to version 2.1.60:

- Missing commands for timeslot configuration during packet switched dual band handover procedure added (PREPare:GSM:SIGN:HANDover:PSWitched:ENABle:UL and PREPare:GSM:SIGN:HANDover:PSWitched:ENABle:DL:CARRier)
- General improvement of long term stability

Known issues:

- An MT SMS while an MO SMS is ongoing doesn't work properly
- Frequency hopping during packet switched connections is not supported
- The display of the AMR rate sets in the config menu is not updated correctly when changing AMR rate set parameter
- IQ delays are not calculated correctly at scenario "IQ out – RF in"
- Packet switched connections don't work properly after the mobile has performed a PDP context activation procedure
- Downlink coding schemes for carrier 2 can not be set in remote mode
- The remote commands:
  CONFigure:GSM:SIGN:CONN:PSW:SCONFig:CSCHeme:DL:CARRier,
  CONFigure:GSM:SIGN:CONN:PSW:SCONfig:COMBined:CARRier and
  PREPare:GSM:SIGN:HAND:PSW:CSCHeme:DL:CARRier work properly only, if the same coding scheme is used for all time slots
- Some remote commands like:
  CONFigure:GSM:SIGN:CONN:PSW:SCONfig:ENABle:UL and
  CONFigure:GSM:SIGN:CONN:PSW:SCONfig:ENABle:DL:CARRier
  allow to activate timeslot 0. This is not supported by the current release and results in call drops
- Configuring a circuit switched loop before doing an inter RAT handover is not working properly. It is recommended to close the loop after the inter RAT handover is executed

- SACCH FER measurement stops at Hyper Frame wrap around (about every 3:29 hours)
- **Restriction for FER SACCH measurement:** The user is responsible to set the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 2.1.60 for GSM Signaling

New features compared to version 2.1.26:

KS200 related:

- Signaling parameter reconfiguration during 'TBF Established' state is supported
- EGPRS Switched Radio Block Loopback Mode (SRB) according 3GPP Spec 44.014 is supported
- 'Data Source' Echo/PRBS 2E9-1..4 is selectable for circuit switched connections
- 'Control Ack Type' Normal Burst/Access Burst is selectable for packet switched connections
- Remote commands to query uplink and downlink frequencies for BCCH- and TCH channel
  - CONFigure:GSM:SIGNaling:RFSettings:FREQuency:BCCH:DL?
  - CONFigure:GSM:SIGNaling:RFSettings:FREQuency:BCCH:UL?
  - CONFigure:GSM:SIGNaling:RFSettings:FREQuency:TCH:DL:CARRier<n>?
  - CONFigure:GSM:SIGNaling:RFSettings:FREQuency:TCH:UL?
- New default value in (Packet)SystemInfo13 for PCMeasChan: PDCH instead of BCCH up to now
- The 'Measurement Slot UL' is no longer coupled to the Circuit Switched timeslot

KS210 related:

- Circuit switched traffic modes AMR-NB HR 8PSK, AMR-WB FR 8PSK and AMR-WB HR 8PSK are supported
- Half rate sub channel 0,1 is selectable for circuit switched half rate connections
- 'Control Ack' trigger is settable as trigger source for External Trigger and for Multi Evaluation measurement

Bug fixes compared to version 2.1.26:

- General improvement of stability, especially for packet switched features
- CS Connect with default subscriber works even when the mobile hasn't performed a location update
- No signaling unit shutdown happens at PS Connect, when the mobile is not attached
- Asymmetric (E)GPRS Test Mode B connections (more DL than UL slots active) work fine
- Frequency dependent attenuation tables with up to 1000 entries work fine

Known issues:

- An MT SMS while an MO SMS is ongoing doesn't work properly

- Frequency hopping during packet switched connections is not supported
- The display of the AMR rate sets in the config menu is not updated correctly when changing AMR rate set parameter
- IQ delays are not calculated correctly at scenario “IQ out – RF in”
- Packet switched connections don’t work properly after the mobile has performed a PDP context activation procedure
- **Restriction for FER SACCH measurement:** The user is responsible to set the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 2.1.26 for GSM Signaling

New features compared to version 2.1.25:

No new features. This is a bug fix release.

Bug fixes compared to version 2.1.25:

- PCL values greater 19 in GSM 850/900 and PCL values greater 15 in GSM 1800/1900 are working properly
- Hopping lists are aligned correctly in the MMI
- Parameter Config/Network/Cell/BS AG BLKS RES has correct range 0...2
- MO Call is working, if BCC is set to a value unequal 0
- Last parameter in returnstring of remote command FETCH:GSM:SIGN:BER:CSW? is initialized correctly
- No call drop, if parameter MAIO is changed during a CS call with hopping active
- The remote command: CONFigure:GSM:SIGNaling:CONNection:PSWitched:SCONFig:CSCHeme:DL:CARRier1 allows to set only one coding scheme for all slots
- Sig On procedure works faster after the GSM Sig FWA has been suppressed (only available with CMW Base system release 2.1.25 or higher)
- The Inter RAT handover WCDMA -> GSM works, if the Traffic Mode in GSM is AMR
- General improvement of stability

Known issues:

- CS Connect with default subscriber fails, when the mobile hasn’t performed a location update
- A signaling unit shutdown happens at PS Connect, when the mobile is not attached
- Frequency hopping during packet switched connections is not supported
- The display of the AMR rate sets in the Config menu is not updated correctly when changing AMR rate set parameter
- The display of the hopping list sets in the Config menu is not updated correctly when changing hopping list entries.
- Changing "reclose after channel change" only works if it is done before the call is established
- IQ delays are not calculated correctly at scenario “IQ out – RF in”
- Greek letters are not handled correctly in SMS messages

- Signaling unit shutdown at asymmetric GPRS Test Mode B connections
- Frequency dependent attenuation tables with more than 300 entries are ignored
- When GSM is switched on simultaneously with other signaling FWAs, the GSM signaling unit sometimes shuts down (depends on base system)
- Packet switched connections don’t work properly after the mobile has performed a PDP context activation procedure
- **Restriction for FER SACCH measurement:** The user is responsible to set the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result
- If mobile does not support traffic mode HR V1 call provocates signaling unit timeout
- In Test mode A if an invalid slot combination is configured then a signaling unit timeout occurs.

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Release Note 2.1.25 for GSM Signaling

New features compared to version 2.1.10:

KS200 related:

- RX Power indicator to qualify the range the of the uplink signal of the DUT
- Clear button to clear the incoming SMS text
- The BER measurement sets the Reliability value “Acquisition Error”, when the measurement can not synchronize to the signal of the mobile

KS210 related:

- Support of wide band AMR traffic mode (AMR-WB FR GMSK)
- New circuit switched BER measurement modes: FER FACCH and FER SACCH
- New functions Config/Connection/Circuit Switched/Repeated FACCH and Repeated SACCH

Bug fixes compared to version 2.1.10:

- Setting of T3321 (periodic routing area update timer) is working properly
- Radio link timeout during packet switched connections is working properly
- BCCH is restored correctly after a radio link timeout in packet switched dual band handover band
- Between the GPRS Attach procedure and PS Connect a delay is no longer needed
- Switching On the PS Domain in state Signal On is working properly
- Uplink coding scheme is settable in packet switched dual band handover dialog
- Switching On/Off VAMOS is working if it is done while a call is established

Known issues:

- CS Connect with default subscriber fails, when the mobile hasn’t performed a location update
- A signaling unit shutdown happens at PS Connect, when the mobile is not attached
- Frequency hopping during packet switched connections is not supported
- The display of the AMR rate sets in the Config menu is not updated correctly when changing AMR rate set parameter
- Changing "reclose after channel change" only works if it is done before the call is established
- IQ delays are not calculated correctly at Scenario “IQ out – RF in”
- Greek letters are not handled correctly in SMS messages
- Signaling unit shutdown at asymmetric GPRS Test Mode B connections
- Frequency dependent attenuation tables with more than 300 entries are ignored

- The remote command: CONFigure:GSM:SIGNaling:CONNection:PSWitched:SCONFig:CSCHeme:DL:CARRier1 allows to set individual coding schemes per slot. This is not yet working
- A signaling unit shutdown happens, when the BER measurement in a WB-AMR connection is started and mobile does not support WB-AMR
- When GSM is switched on simultaneously with other signaling FWAs, the GSM signaling unit sometimes shuts down
- PCL values > 19 in GSM 850/900 and PCL values > 15 in GSM 1800/1900 are not working properly
- **Restriction for FER SACCH measurement:** The user is responsible to set the PCL to 7, before starting the measurement. Otherwise the input attenuation of the CMW is not correct. This might influence the measurement result

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Release Note 2.1.10 for GSM Signaling

New features compared to version 2.0.20:

Bug fixes compared to version 2.0.20:

- No invalid signal pulses at the trigger line, when a trigger is active
- MS capability report is displayed correctly
- Remote command SENS:GSM:SIGN:MSS:BANDS? works according MMI and manual
- External input attenuation is settable in TBF Established state
- Timeslot 0 in the slot editor is no longer selectable for packet switched connections
- Coding scheme changes in the dual band handover dialog are working properly
- PDP Context activation reject does no longer end in PS substate PDP Context Activated
- Downlink FDA tables don't get lost after Location Area Code, Routing Area Code, T3212 and T3312 changes

Known issues:

- Frequency hopping during packet switched connections is not supported
- Hopping lists with 64 enties are not working in circuit switched calls
- Display in MMI not updated correctly when changing AMR rate sets
- Changing "reclose after channel change" only works if it is done before the call is established
- Switching on VAMOS enable only works if it is done before the call is established
- BCCH is damaged after a radio link timeout in packet switched dual band handover band
- Radio link timeout during packet switched connections is not working properly
- IQ delays are not calculated correctly at Scenario “IQ out – RF in”
- Timer T3312 (periodic routing area update timer) of config menu is not assigned during GPRS attach procedure
- Between the GPRS Attach procedure and PS Connect a delay of 3 seconds is currently recommended to avoid a Signaling Unit shutdown
- Switching On the PS Domain in state Signal On sometimes causes a Signaling Unit shutdown
- Greek letters are not handled correctly in SMS messages
- Sporadic synchronization failures during BER measurements in Test Mode B have been observed with older mobile devices
- Signaling unit shutdown at asymmetric Test Mode B connections
- Test Mode A with more than 1 uplink slot only works, if the lowest uplink slot is also configured as a downlink slot

- Frequency dependent attenuation tables with more than 100 entries are ignored
- The remote command:
  CONFigure:GSM:SIGNaling:CONNection:PSWitched:SCONFig:CSCHeme:DL:CARRier1
  allows to set individual coding schemes per slot. This is not yet working

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Release Note 2.0.20 for GSM Signaling

New features compared to version 2.0.10:

KS200 related:

- Support of packet switched connections for BLER, Test Mode A and Test Mode B
- Maximum supported number of timeslots:
  - BLER: 5 downlink
  - Test Mode A: 4 uplink
  - Test Mode B: 5 downlink / 4 uplink
- Support of coding schemes CS1 … CS4 and MCS1 … MCS9
- Support of dual band handover for all packet switched connections
- BLER measurement with BLER results and data throughputs for each used slot and overall result for all used timeslots
- BER measurement for Test Mode B
- USF BLER measurement for Test Mode A (downlink CS1 coded)
- Measurement reporting during BLER and Test Mode B connections
- Display of MS capabilities like power class, multislot class and supported bands after GPRS attach procedure

KS201 related:

- Downlink Dual Carrier supported for BLER connection with up to 3DL/3UL timeslots
- EGPRS2-A coding schemes DAS5 - DAS12 supported for BLER connections

KS203 related:

- VAMOS Level I and II selectable

KS210 related:

- Packet switched Data Source selectable (4 PRBS sequences possible)
- Downlink RF power level for each downlink timeslot can be reduced from 0dB … 40dB

Bug fixes compared to version 2.0.10:

- General improvement of stability
- Frequency dependant attenuation changes during a call are activated immediately
- MT- and MO SMS is working during calls with half rate traffic modes
- BCCH is restored during continued dual band handover, if BCCH band = TCH band
- Special characters in SMS message (like <, >, _ …) are handled correctly
- Changing traffic mode between FRV2 and AMR-NB FR GMSK is working properly

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Known issues:

- Frequency hopping during packet switched connections is not supported
- Hopping lists with 64 enties are not working in circuit switched calls
- Display in MMI not updated correctly when changing AMR rate sets
- Changing "reclose after channel change" only works if it is done before the call is established
- Switching on VAMOS enable only works if it is done before the call is established
- BCCH is damaged after a radio link timeout in packet switched dual band handover band
- Radio link timeout during packet switched connections is not working properly
- IQ delays are not calculated correctly at Scenario “IQ out – RF in”
- Timer T3312 (periodic routing area update timer) of config menu is not assigned during GPRS attach procedure
- Between the GPRS Attach procedure and PS Connect a delay of 3 seconds is currently recommended to avoid a Signaling Unit shutdown
- Switching On the PS Domain in state Signal On sometimes causes a Signaling Unit shutdown
- Greek letters are not handled correctly in SMS messages
- Coding scheme changes in the dual band handover dialog box are not used after the dual band handover
- Sporadic synchronization failures during BER measurements in Test Mode B have been observed with older mobile devices
- Invalid signal pulses at the trigger line, when a trigger is activated
- Signaling unit shutdown at asymmetric Test Mode B connections
- A frequency dependent attenuation table with more than 100 entries causes a system crash
- Timeslot 0 in the slot editor is selectable for packet switched connections but not working
- MS capabilities are not always reported correctly
- External input attenuation is not settable in TBF Established state
- Test Mode A with more than 1 uplink slot only works, if the lowest uplink slot is also configured as a downlink slot
- The remote command:
  CONFigure:GSM:SIGNaling:CONNection:PSWitched:SCONFig:CSCHeme:DL:CARRier1
  allows to set individual coding schemes per slot. This is not yet working

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Release Note 2.0.10 for GSM Signaling

New features compared to version 1.0.15.20:

KS200 related:

- Short Message Service support for mobile terminated and mobile originated SMS
- Improved circuit switched measurement reporting with RX Level- and RX Quality Sub Serving Cell and SACCH Report Counter
- TCH assignment for circuit switched call selectable between very early, early and late
- Scenario “IQ out – RF in” selectable
- Input RF power control selectable between modes “Manual” and “According UL Power Control”
- Support of frequency dependant attenuation
- Range of traffic timeslots enlarged from 2...6 to 1…7
- External trigger signals at rear trigger connectors for frame- and multiframe events
- Frame- and multiframe trigger in Multi Evaluation Measurement with Combined Signal Path
- Inter RAT handover from WCDMA to GSM free routable

KS203 related:

- VAMOS support

KS210 related:

- Traffic Modes FRV2, HRV1, AMR-NB FR GMSK and AMR-NB HR GMSK supported
- Bit error rate measurement with additional measure modes RBER/FER (Loop mode A) and BER (loop mode B)
- Support of frequency hopping (hopping list with max. 64 entries, HSN and MAIO settable)

Bug fixes compared to version 1.0.15.20:

- General improvement of stability

Known issues:

- Packet switched functionality is not supported by this release and therefore disabled in the menus. The user manual already contains the description of the packet switched functionality
- BER instable in BER Search of CMW Run
- MT- and MO SMS not working, if Traffic Mode is HRV1 or AMR-NB HR GMSK

- Protocol stack crash, if hopping list contains 64 entries
- Sporadic no echo during circuit switched call, although BER Loop=Off
- Display in MMI not updated correctly when changing AMR rate sets
- IQ delays are not calculated correctly at Scenario “IQ out – RF in”
- Changing "reclose after channel change" only works if it is done before the call is established
- Switching on VAMOS enable only works if it is done before the call is established
- Frequency dependant attenuation changes during a call are activated only after next signaling procedure
- Sporadic Signaling Unit timeout during extended overall tests
- Signaling Unit timeout when changing traffic mode between FRV2 and AMR-NB FR GMSK while doing FER measurement

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Release Note 1.0.15.20 for GSM Signaling

New features compared to version 1.0.15.0:

- New command to change between GSM and CW RF signal generation (only remote mode)

Bug fixes compared to version 1.0.15.0:

- Long term stability improvements
- Improvement of RF level stability for levels < -86dBm
- Signaling parameter in GSM multievaluation measurement in combined signal path are handled correctly
- Resolution of DL Reference Level in config menu is 1/100dBm
- Max. Limits for RF1COM /RF2COM corrected
- Reference Level indication in GSM multievaluation measurement in combined signal path is calculated including network margin
- Recall is now possible in all signaling states
- ARFCN 0 is settable in GSM900

Known issues:

- First call connect sporadically fails after call disconnect from dual band handover band in remote mode

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Release Note 1.0.15.0 for GSM Signaling

New Features compared to version 1.0.10.50:

- First Release

Bug Fixes compared to version 1.0.10.50:

- First Release

Known Issues:

- Change of external attenuation during call sometimes leads to a loss of the call
- An additional command shell is opened in Windows XP task bar when protocol stack is started with Signal On.
- The Ref.Level in MEV measurement with combined signal path on GSM Signaling is set due to PMax, not due to PCL.
- In the handover configuration popup window, only ARFCNs < 1000 can be entered.
- Change of BCC in Call Established leads to MEV measurement failures, if MEV is in combined signal path with GSM Signaling.
- Max value of DL Reference level is not correct:
  - COM1 / COM2 should be -11dBm but currently -5dBm is possible
  - RF1 OUT should be +2dBm but currently +3dBm is possible
- Frequent open- and close loop may lead to signaling timeout
- Corresponding parameters in Combined Signal Path are not updated in every signaling state in master application.