TSG-RAN Meeting #21
Frankfurt, Germany, 16-19 September 2003

RP-030552

Title:	**Proposed update of Minimum capability class CRs**		
Source:	**Ericsson**		
Agenda item:	**7.3.3**		

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.331	2058	2	R99	Corrections for minimum UE capability class	F	3.15.0	3.16.0	NA	TEI
25.331	2059	2	Rel-4	Corrections for minimum UE capability class	A	4.10.0	4.11.0	NA	TEI
25.331	2060	2	Rel-5	Corrections for minimum UE capability class	A	5.5.0	5.6.0	NA	TEI

CR-Form-v7

CHANGE REQUEST

⌘ **25.331 CR 2058** ⌘**rev 2** ⌘ Current version: **3.15.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Corrections for minimum UE capability class	
Source: ⌘	Ericsson	
Work item code:⌘	TEI	**Date:** ⌘ 27/08/2003
Category: ⌘ **F**		**Release:** ⌘ R99

Use <u>one</u> of the following categories:
F (correction)
A (corresponds to a correction in an earlier release)
B (addition of feature),
C (functional modification of feature)
D (editorial modification)
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use <u>one</u> of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘	In 34.108 there are reference configurations for common channels that are not supported by a terminal that have the minimum possible capability. Such a terminal must still behave correctly in case it is accessing a network that utilises such configurations not supported by this terminal on common channels.
Summary of change:⌘	A note is added to make sure that a UE with the lowest UE capability still should perform in a predictable manner in NWs utilising a high bitrate common channel configuration for common channels. Impact analysis: UEs with capabilities lower than defined for e.g. 32kbps UE class are affected. UEs that do not implement and take the CR into account may be unable to support RAB combinations on common channels, e.g. SCCPCH combinations. Specifically they can fail to read the FACH.
Consequences if ⌘ **not approved:**	Operators may use RAB combinations that can not be supported by UEs with insufficient UE capabilities. In consequence UEs may be unable to access the system.

Clauses affected: ⌘	8.1.1.6.5, 8.1.1.6.6

	Y	**N**		
Other specs ⌘		**X**	Other core specifications ⌘	
affected:	**X**		Test specifications	34.123-2
		X	O&M Specifications	

CR page 1

Other comments:	⌘	<mark>Changes in revision 2 is highlighted in yellow.</mark>

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.1.6.5 System Information Block type 5

The UE should store all relevant IEs included in this system information block. The UE shall:

1> if in connected mode, and System Information Block type 6 is indicated as used in the cell:

2> read and act on information sent in System Information Block type 6.

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink for the PRACH if UE is in CELL_FACH state;

1> use the first instance of the list of transport formats as in the IE "RACH TFS" for the used RACH received in the IE "PRACH system information list" when using the CCCH;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" (FDD only) when given allocated PRACH is used;

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by the IE "PICH info" if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to monitor its paging occasions on the selected PICH if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if UE is in CELL_FACH state;

1> in TDD:

2> use the IE "TDD open loop power control" as defined in subclause 8.5.7 when allocated PRACH is used;

2> if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included:

3> store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.

8.1.1.6.6 System Information Block type 6

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink if UE is in CELL_FACH state. If the IE "PRACH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information to configure the PRACH;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" when associated PRACH is used. If the IE "AICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information (FDD only);

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by

the IE "PICH info" if the UE is in CELL_PCH or URA_PCH state. If the IE "PICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information;

1> start to monitor its paging occasions on the selected PICH if the UE is in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if the UE is in CELL_FACH state. If the IE "Secondary CCPCH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information;

1> in TDD: use the IE "TDD open loop power control" as defined in subclause 8.5.7;

1> in TDD: if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included, store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.

10.3.3.34 RLC capability

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
Total RLC AM buffer size	MP		Integer (2,10,50,100,150,500,1000)	Total receiving and transmitting RLC AM buffer capability in kBytes. One spare value is needed.
Maximum RLC AM Window Size	MP		Integer(2047,4095)	Maximum supported RLC TX and RX window in UE
Maximum number of AM entities	MP		Integer (3,4,5,6,8,16,30)	

10.3.3.40 Transport channel capability

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
Downlink transport channel capability information elements				
Max no of bits received	MP		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all transport blocks received at an arbitrary time instant
Max convolutionally coded bits received	MP		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all convolutionally coded transport blocks received at an arbitrary time instant
Max turbo coded bits received	CV-*turbo_dec_sup*		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all turbo coded transport blocks received at an arbitrary time instant
Maximum number of simultaneous transport channels	MP		Integer(4, 8, 16, 32)	
Maximum number of simultaneous CCTrCH	MP		Integer (1..8)	
Max no of received transport blocks	MP		Integer(4, 8, 16, 32, 48, 64, 96, 128, 256, 512)	Maximum total number of transport blocks received within TTIs that end at within the same 10ms interval
Maximum number of TFC	MP		Integer(16, 32, 48, 64, 96, 128, 256, 512, 1024)	
Maximum number of TF	MP		Integer(32, 64, 128, 256, 512, 1024)	
Support for turbo decoding	MP		Boolean	TRUE means supported. ~~This IE shall be set to TRUE in this version of the protocol.~~
Uplink transport channel capability information elements				
Max no of bits transmitted	MP		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all transport blocks transmitted at an arbitrary time instant

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
Max convolutionally coded bits transmitted	MP		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all convolutionally coded transport blocks transmitted at an arbitrary time instant
Max turbo coded bits transmitted	CV-*turbo_enc_sup*		Integer(640, 1280, 2560, 3840, 5120, 6400, 7680, 8960, 10240, 20480, 40960, 81920, 163840)	Maximum sum of number of bits of all turbo coded transport blocks transmitted at an arbitrary time instant
Maximum number of simultaneous transport channels	MP		Integer(2, 4, 8, 16, 32)	
Maximum number of simultaneous CCTrCH of DCH type	CH-*tdd_req_sup*		Integer (1..8)	
Max no of transmitted transport blocks	MP		Integer(2, 4, 8, 16, 32, 48, 64, 96, 128, 256, 512)	Maximum total number of transport blocks transmitted within TTIs that start at the same time
Maximum number of TFC	MP		Integer(4, 8, 16, 32, 48, 64, 96, 128, 256, 512, 1024)	
Maximum number of TF	MP		Integer(32, 64, 128, 256, 512, 1024)	
Support for turbo encoding	MP		Boolean	TRUE means supported

Condition	Explanation
turbo_dec_sup	The IE is mandatory present if the IE "Support of turbo decoding" = True. Otherwise this field is not needed in the message.
turbo_enc_sup	The IE is mandatory present if the IE "Support of turbo encoding" = True. Otherwise this field is not needed in the message.
tdd_req_sup	The IE is mandatory present if the IE "Multi-mode capability" has the value "TDD" or "FDD/TDD" and a TDD capability update has been requested in a previous message. Otherwise this field is not needed in the message.

10.3.3.25 Physical channel capability

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
Downlink physical channel capability information elements				
FDD downlink physical channel capability	CH-*fdd_req_sup*			
>Max no DPCH/PDSCH codes	MP		Integer (1..8)	Maximum number of DPCH/PDSCH codes to be simultaneously received

Information Element/Group name	Need	Multi	Type and Reference	Semantics description
>Max no physical channel bits received	MP		Integer (600, 1200, 2400, 3600, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 48000, 57600, 67200, 76800)	Maximum number of physical channel bits received in any 10 ms interval (DPCH, PDSCH, S-CCPCH)
>Support for SF 512	MP		Boolean	TRUE means supported
>Support of PDSCH	MP		Boolean	TRUE means supported
>Simultaneous reception of SCCPCH and DPCH	MP		Boolean	TRUE means supported
>Simultaneous reception of SCCPCH, DPCH and PDSCH	CV-*if_sim_rec_pdsch_sup*		Boolean	TRUE means supported
>Max no of S-CCPCH RL	CV-*if_sim_rec*		Integer(1)	Maximum number of simultaneous S-CCPCH radio links
>Support of dedicated pilots for channel estimation	MD		Enumerated (true)	Presence of this element means supported and absence not supported. Note 1.
TDD downlink physical channel capability	CH-*tdd_req_sup*			
>Maximum number of timeslots per frame	MP		Integer (1..14)	
>Maximum number of physical channels per frame	MP		Integer (1..224)	
>Minimum SF	MP		Integer (1, 16)	
>Support of PDSCH	MP		Boolean	TRUE means supported
>Maximum number of physical channels per timeslot	MP		Integer (1..16)	
Uplink physical channel capability information elements				
FDD uplink physical channel capability	CH-*fdd_req_sup*			
>Maximum number of DPDCH bits transmitted per 10 ms	MP		Integer (600, 1200, 2400, 4800. 9600, 19200. 28800, 38400, 48000, 57600)	
>Support of PCPCH	MP		Boolean	TRUE means supported
TDD uplink physical channel capability	CH-*tdd_req_sup*			
>Maximum Number of timeslots per frame	MP		Integer (1..14)	
>Maximum number of physical channels per timeslot	MP		Integer (1, 2)	
>Minimum SF	MP		Integer (1, 2, 4, 8, 16)	
>Support of PUSCH	MP		Boolean	TRUE means supported

Condition	Explanation
if_sim_rec_pdsch_sup	The IE is mandatory present if the IE "Simultaneous reception of SCCPCH and DPCH" = True and IE Support of PDSCH = True. Otherwise this field is not needed in the message.
if_sim_rec	The IE is mandatory present if the IE "capability Simultaneous reception of SCCPCH and DPCH" = True. Otherwise this field is not needed in the message.
tdd_req_sup	The IE is mandatory present if the IE "Multi-mode capability" has the value "TDD" or "FDD/TDD" and a TDD capability update has been requested in a previous message. Otherwise this field is not needed in the message.
fdd_req_sup	The IE is mandatory present if the IE "Multi-mode capability" has the value "FDD" or "FDD/TDD" and a FDD capability update has been requested in a previous message. Otherwise this field is not needed in the message.

NOTE 1: These performance requirements are defined in Release 5.

11.3 Information element definitions

[…]

```
RLC-Capability ::=               SEQUENCE {
    totalRLC-AM-BufferSize           TotalRLC-AM-BufferSize,
    maximumRLC-WindowSize            MaximumRLC-WindowSize,
    maximumAM-EntityNumber           MaximumAM-EntityNumberRLC-Cap
}
```

[…]

```
TotalRLC-AM-BufferSize ::=       ENUMERATED {
                                     kb2, kb10, kb50, kb100,

                                 kb150, kb500, kb1000, spare }
```
[…]

```
MaximumAM-EntityNumberRLC-Cap ::=   ENUMERATED {
                                     am3, am4, am5, am6,
                        am8, am16, am30 }
```

[…]

```
DL-TransChCapability ::=         SEQUENCE {
    maxNoBitsReceived                MaxNoBits,
    maxConvCodeBitsReceived          MaxNoBits,
    turboDecodingSupport             TurboSupport,
    maxSimultaneousTransChs          MaxSimultaneousTransChsDL,
    maxSimultaneousCCTrCH-Count      MaxSimultaneousCCTrCH-Count,
    maxReceivedTransportBlocks       MaxTransportBlocksDL,
    maxNumberOfTFC                   MaxNumberOfTFC-DL,
    maxNumberOfTF                    MaxNumberOfTF
}
```

[…]

```
MaxNoBits ::=                          ENUMERATED {
                                       b640, b1280, b2560, b3840, b5120,
                                       b6400, b7680, b8960, b10240,
                              b20480, b40960, b81920, b163840 }
```

[…]

```
MaxSimultaneousTransChsDL ::=       ENUMERATED {
                              e4, e8, e16, e32 }
```

[…]

```
MaxTransportBlocksDL ::=            ENUMERATED {
                                       tb4, tb8, tb16, tb32, tb48,
                              tb64, tb96, tb128, tb256, tb512 }
```

[…]

```
MaxNumberOfTFC-DL ::=               ENUMERATED {
                                       tfc16, tfc32, tfc48, tfc64, tfc96,
                              tfc128, tfc256, tfc512, tfc1024 }
```

[…]

```
TurboSupport ::=                    CHOICE {
    notSupported                       NULL,
    supported                          MaxNoBits
}
```

[…]

```
UL-TransChCapability ::=            SEQUENCE {
    maxNoBitsTransmitted               MaxNoBits,
    maxConvCodeBitsTransmitted         MaxNoBits,
    turboEncodingSupport               TurboSupport,
    maxSimultaneousTransChs            MaxSimultaneousTransChsUL,
    modeSpecificInfo                   CHOICE {
        fdd                                NULL,
        tdd                                SEQUENCE {
            maxSimultaneousCCTrCH-Count         MaxSimultaneousCCTrCH-Count
        }
    },
    maxTransmittedBlocks               MaxTransportBlocksUL,
    maxNumberOfTFC                     MaxNumberOfTFC-UL,
    maxNumberOfTF                      MaxNumberOfTF
}
```

[…]

```
MaxSimultaneousTransChsUL ::=       ENUMERATED {
                              e2, e4, e8, e16, e32 }
```

[…]

```
MaxTransportBlocksUL ::=            ENUMERATED {
                                       tb2, tb4, tb8, tb16, tb32, tb48,
```

```
                                 tb64, tb96, tb128, tb256, tb512 }
```

[…]

```
MaxNumberOfTFC-UL ::=                  ENUMERATED {
                                         tfc4, tfc8, tfc16, tfc32, tfc48, tfc64,
                              tfc96, tfc128, tfc256, tfc512, tfc1024 }
```

[…]

```
DL-PhysChCapabilityFDD ::=             SEQUENCE {
    maxNoDPCH-PDSCH-Codes              INTEGER (1..8),
    maxNoPhysChBitsReceived           MaxNoPhysChBitsReceived,
    supportForSF-512                  BOOLEAN,
    supportOfPDSCH                    BOOLEAN,
    simultaneousSCCPCH-DPCH-Reception SimultaneousSCCPCH-DPCH-Reception
}

DL-PhysChCapabilityFDD-v380ext ::=         SEQUENCE {
    supportOfDedicatedPilotsForChEstimation    SupportOfDedicatedPilotsForChEstimation    OPTIONAL
}

SupportOfDedicatedPilotsForChEstimation ::=         ENUMERATED { true }
```

[…]

```
MaxNoPhysChBitsReceived ::=            ENUMERATED {
                                         b600, b1200, b2400, b3600,
                                         b4800, b7200, b9600, b14400,
                                         b19200, b28800, b38400, b48000,
                                         b57600, b67200, b76800 }
```

[…]

```
DL-PhysChCapabilityTDD ::=             SEQUENCE {
    maxTS-PerFrame                     MaxTS-PerFrame,
    maxPhysChPerFrame                  MaxPhysChPerFrame,
    minimumSF                          MinimumSF-DL,
    supportOfPDSCH                     BOOLEAN,
    maxPhysChPerTS                     MaxPhysChPerTS
}
```

[…]

```
MaxPhysChPerFrame ::=                  INTEGER (1..224)
```

[…]

```
MaxPhysChPerTS ::=                     INTEGER (1..16)
```

[…]

```
UL-PhysChCapabilityFDD ::=             SEQUENCE {
    maxNoDPDCH-BitsTransmitted         MaxNoDPDCH-BitsTransmitted,
    supportOfPCPCH                     BOOLEAN
}
```

[…]

```
MaxNoDPDCH-BitsTransmitted ::=        ENUMERATED {
                                         b600, b1200, b2400, b4800,
                                         b9600, b19200, b28800, b38400,
                                         b48000, b57600 }
```

[…]


```
UL-PhysChCapabilityTDD ::=           SEQUENCE {
    maxTS-PerFrame                      MaxTS-PerFrame,
    maxPhysChPerTimeslot                MaxPhysChPerTimeslot,
    minimumSF                           MinimumSF-UL,
    supportOfPUSCH                      BOOLEAN
}
```

[…]

```
MinimumSF-UL ::=                     ENUMERATED {
                            sf1, sf2, sf4, sf8, sf16 }
```


 […]

CR-Form-v7

CHANGE REQUEST

⌘ **25.331 CR 2059** ⌘**rev 2** ⌘ Current version: **4.10.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ ☐ ME **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Corrections for minimum UE capability class	
Source: ⌘	Ericsson	
Work item code: ⌘	TEI	**Date:** ⌘ 29/08/2003
Category: ⌘ **A**		**Release:** ⌘ Rel-4

Use <u>one</u> of the following categories:
F (correction)
A (corresponds to a correction in an earlier release)
B (addition of feature),
C (functional modification of feature)
D (editorial modification)
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use <u>one</u> of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘	In 34.108 there are reference configurations for common channels that are not supported by a terminal that have the minimum possible capability. Such a terminal must still behave correctly in case it is accessing a network that utilises such configurations not supported by this terminal on common channels.
Summary of change: ⌘	A note is added to make sure that a UE with the lowest UE capability still should perform in a predictable manner in NWs utilising a high bitrate common channel configuration for common channels. Impact analysis: UEs with capabilities lower than defined for e.g. 32kbps UE class are affected. UEs that do not implement and take the CR into account may be unable to support RAB combinations on common channels, e.g. SCCPCH combinations. Specifically they can fail to read the FACH.
Consequences if not approved: ⌘	Operators may use RAB combinations that can not be supported by UEs with insufficient UE capabilities. In consequence UEs may be unable to access the system.

Clauses affected: ⌘	8.1.1.6.5, 8.1.1.6.6

	Y	N		
Other specs affected: ⌘		X	Other core specifications ⌘	
	X		Test specifications	34.123-2
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.1.6.5   System Information Block type 5

The UE should store all relevant IEs included in this system information block. The UE shall:

1> if in connected mode, and System Information Block type 6 is indicated as used in the cell:

2> read and act on information sent in System Information Block type 6.

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink for the PRACH if UE is in CELL_FACH state;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" (FDD only) when given allocated PRACH is used;

1> use the first instance of the list of transport formats as in the IE "RACH TFS" for the used RACH received in the IE "PRACH system information list" when using the CCCH;

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by the IE "PICH info" if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to monitor its paging occasions on the selected PICH if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if UE is in CELL_FACH state;

1> in 3.84 Mcps TDD:

2> use the IE "TDD open loop power control" as defined in subclause 8.5.7 when allocated PRACH is used.

1> in TDD:

2> if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included:

3> store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.

8.1.1.6.6   System Information Block type 6

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink if UE is in CELL_FACH state. If the IE "PRACH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information to configure the PRACH;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" when associated PRACH is used. If the IE "AICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information (FDD only);

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by the IE "PICH info" if the UE is in CELL_PCH or URA_PCH state. If the IE "PICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information;

1> start to monitor its paging occasions on the selected PICH if the UE is in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if the UE is in CELL_FACH state. If the IE "Secondary CCPCH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information;

1> in 3.84 Mcps TDD: use the IE "TDD open loop power control" as defined in subclause 8.5.7;

1> in TDD: if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included, store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.

CR-Form-v7

CHANGE REQUEST

⌘ **25.331 CR 2060** ⌘**rev 2** ⌘ Current version: **5.5.0** ⌘

For HELP on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

Proposed change affects: UICC apps⌘ ☐ ME **X** Radio Access Network **X** Core Network ☐

Title: ⌘	Corrections for minimum UE capability class
Source: ⌘	Ericsson
Work item code:⌘ TEI	**Date:** ⌘ 29/08/2003

Category: ⌘ **A**   **Release:** ⌘ Rel-5

Use *one* of the following categories:
F (correction)
A (corresponds to a correction in an earlier release)
B (addition of feature),
C (functional modification of feature)
D (editorial modification)
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use *one* of the following releases:
2 (GSM Phase 2)
R96 (Release 1996)
R97 (Release 1997)
R98 (Release 1998)
R99 (Release 1999)
Rel-4 (Release 4)
Rel-5 (Release 5)
Rel-6 (Release 6)

Reason for change: ⌘	In 34.108 there are reference configurations for common channels that are not supported by a terminal that have the minimum possible capability. Such a terminal must still behave correctly in case it is accessing a network that utilises such configurations not supported by this terminal on common channels.
Summary of change:⌘	A note is added to make sure that a UE with the lowest UE capability still should perform in a predictable manner in NWs utilising a high bitrate common channel configuration for common channels. Impact analysis: UEs with capabilities lower than defined for e.g. 32kbps UE class are affected. UEs that do not implement and take the CR into account may be unable to support RAB combinations on common channels, e.g. SCCPCH combinations. Specifically they can fail to read the FACH.
Consequences if not approved: ⌘	Operators may use RAB combinations that can not be supported by UEs with insufficient UE capabilities. In consequence UEs may be unable to access the system.

Clauses affected: ⌘	8.1.1.6.5, 8.1.1.6.6

Other specs affected: ⌘	**Y**	**N**		
		X	Other core specifications ⌘	
	X		Test specifications	34.123-2
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.1.6.5 System Information Block type 5

The UE should store all relevant IEs included in this system information block. The UE shall:

1> if in connected mode, and System Information Block type 6 is indicated as used in the cell:

2> read and act on information sent in System Information Block type 6.

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink for the PRACH if UE is in CELL_FACH state;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" (FDD only) when given allocated PRACH is used;

1> use the first instance of the list of transport formats as in the IE "RACH TFS" for the used RACH received in the IE "PRACH system information list" when using the CCCH;

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by the IE "PICH info" if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to monitor its paging occasions on the selected PICH if UE is in Idle mode or in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if UE is in CELL_FACH state;

1> in 3.84 Mcps TDD:

2> use the IE "TDD open loop power control" as defined in subclause 8.5.7 when allocated PRACH is used.

1> in TDD:

2> if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included:

3> store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.

8.1.1.6.6 System Information Block type 6

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

1> replace the TFS of the RACH with the one stored in the UE if any;

1> let the physical channel(s) of type PRACH given by the IE(s) "PRACH info" be the default in uplink if UE is in CELL_FACH state. If the IE "PRACH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information to configure the PRACH;

1> start to receive the physical channel of type AICH using the parameters given by the IE "AICH info" when associated PRACH is used. If the IE "AICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information (FDD only);

1> replace the TFS of the FACH/PCH with the one stored in the UE if any;

1> select a Secondary CCPCH as specified in [4] and in subclause 8.5.19, and start to receive the physical channel of type PICH associated with the PCH carried by the selected Secondary CCPCH using the parameters given by the IE "PICH info" if the UE is in CELL_PCH or URA_PCH state. If the IE "PICH info" is not included, the UE shall read the corresponding IE in System Information Block type 5 and use that information;

1> start to monitor its paging occasions on the selected PICH if the UE is in CELL_PCH or URA_PCH state;

1> start to receive the selected physical channel of type Secondary CCPCH using the parameters given by the IE(s) "Secondary CCPCH info" if the UE is in CELL_FACH state. If the IE "Secondary CCPCH info" is not included, the UE shall read the corresponding IE(s) in System Information Block type 5 and use that information;

1> in 3.84 Mcps TDD: use the IE "TDD open loop power control" as defined in subclause 8.5.7;

1> in TDD: if the IE "PDSCH system information" and/or the IE "PUSCH system information" is included, store each of the configurations given there with the associated identity given in the IE "PDSCH Identity" and/or "PUSCH Identity" respectively. For every configuration, for which the IE "SFN Time info" is included, the information shall be stored for the duration given there.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

NOTE: A UE that has a lower capability than required to support a specific transport channel configuration on a Secondary CCPCH, shall still be able to decode a transport channel mapped on this Secondary CCPCH that does match the capability supported by the UE. In order to distinguish a transport channel configuration that is supported by the UE from a transport channel that is not supported by the UE on the same Secondary CCPCH, the UE shall use the TFCI bits for that Secondary CCPCH.