

Source: TSG_CN WG 3
Title: CRs to R99 Work Item "CS Data Bearers"
Agenda item: 7.21
Document for: APPROVAL

Introduction:

This document contains 8 CRs on R99 Work Item "CS Data Bearers", that have been agreed by TSG_CN WG3, and are forwarded to TSG CN Plenary meeting #11 for approval.

Doc-2nd-Level	Spec	CR	Rev	Cat	Subject	Phase	Version-Current	Workitem
N3-010105	23.910	023		F	RAB-assignment request (RAB parameter)	R99	3.3.0	CS Data Bearers
N3-010107	23.910	028		A	RAB-assignment request (RAB parameter)	REL-4	4.1.0	CORRECT
N3-010104	27.001	049		F	RAB-assignment request (RAB parameter)	R99	3.7.0	CS Data Bearers
N3-010106	27.001	050		A	RAB-assignment request (RAB parameter)	REL-4	4.2.0	CORRECT
N3-010147	27.001	051		F	Removal of flow diagram B.1.3.1.7	R99	3.7.0	CS Data Bearers
N3-010148	27.001	052		A	Removal of flow diagram B.1.3.1.7	REL-4	4.2.0	CORRECT
N3-010168	27.001	046	1	F	Removal of the blocking of higher modem speeds and editorial changes	R99	3.7.0	CS Data Bearers
N3-010158	27.001	047	1	A	Removal of the blocking of higher modem speeds and editorial changes	REL-4	4.2.0	CORRECT

CHANGE REQUEST

⌘ **27.001** **CR 049** ⌘ rev **-** ⌘ **Current vers 3.7.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ RAB- assignment request (RAB parameter)		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CS Bearers	Date:	⌘ 26-02-2001
Category:	⌘ F	Release:	⌘ R99
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ To avoid allocation of more resources than requested by the user.		
Summary of change:	⌘ Correction of table in B.1.13.2 (GBR and MBR values).		
Consequences if not approved:	⌘ Possible incorrect charging due to misalignment between requested and allocated resources.		

Clauses affected:	⌘ B.1.13.2		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications	⌘ TS 23.910	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> 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/3G_Specs/CRs.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://www.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

B.1.13.2 Non-transparent services

Depending on the WAIUR signalled by the MS, the network is allowed to assign any radio resources with a radio access bearer parameter indicating a Quality of Service specifying

QoS Parameter	Value	Comments
Traffic Class	Streaming	Subject to operator tuning
RAB Asymmetry Indicator	Symmetric	
Maximum bit rate	14.4, 28.8, 57.6 kbit/s	Maximum bit rate is set to the highest value \leq WAIUR. (Note 1)
Guaranteed bit rate	14.4, 28.8, 57.6 kbit/s 14.4 kbit/s	Operator can may choose any of the possible values less or equal to WAIUR. (Note 1). 14.4, 28.8 or 57.6 kbit/s.
Delivery Order	Yes	
Maximum SDU size	576 bits	
Transfer Delay	250 ms	Subject to operator tuning
Traffic Handling Priority	-	Not applicable to the streaming traffic class
Source statistics descriptor	Unknown	
SDU Parameters		
SDU error ratio	10 %	Subject to operator tuning
Residual bit error ratio	10^{-3}	Subject to operator tuning.
Delivery of erroneous SDUs	No error detection consideration	
SDU format information		
RAB Subflow Combination bit rate	57.6 kbit/s	(Note 2)
RAB Subflow Combination bit rate	28.8 kbit/s	(Note 2)
RAB Subflow Combination bit rate	14.4 kbit/s	
RAB Subflow Combination bit rate	0 kbit/s	indicates DTX, RFCI is not assigned
<p>NOTE 1: <u>If WAIUR is less or equal to 14.4 kbit/s then GBR and MBR shall be set to 14.4 kbit/s.</u> In case the WAIUR is less than Guaranteed bit rate, the Maximum bit rate is set to the Guaranteed bit rate.</p> <p>NOTE 2: Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.</p>		

The final decision about the radio interface configuration is taken by the RNC during the Assignment procedure.

CR-Form-v3

CHANGE REQUEST

⌘ **23.910 CR 023** ⌘ rev **-** ⌘ **Current vers 3.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ RAB- assignment request (RAB parameter)		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CS Bearers	Date:	⌘ 26-02-2001
Category:	⌘ F	Release:	⌘ R99
	<i>Use one of the following categories:</i> F (essential 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.		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ To avoid allocation of more resources than requested by the user.		
Summary of change:	⌘ Correction of table in 5.2.1 (GBR and MBR values).		
Consequences if not approved:	⌘ Possible incorrect charging due to misalignment between requested and allocated resources.		

Clauses affected:	⌘ 5.2.1.		
Other specs affected:	⌘ <input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ TS 27.001	
Other comments:	⌘		

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- 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.

5.2 BC-IE to RAB QoS Mapping

Since UMTS bearer services are described by BC-IEs and RABs by QoS parameters, this section provides implicitly a mapping between the UMTS bearer services and the possible RABs that support them. The QoS mapping is based on TS 23.107.

5.2.1 Non-transparent services

Service identified by the BC IE	Non-transparent data	Comments
Traffic Class	Streaming	Subject to operator tuning
RAB Asymmetry Indicator	Symmetric	
Maximum bit rate (1)	14,4 kbit/s, 28,8 kbit/s, 57.6 kbit/s	Maximum bit rate is set to the highest value \leq WAIUR (Note 1).
Guaranteed bit rate	14,4 kbit/s, 28,8 kbit/s, 57.6 kbit/s 14,4 kbit/s	Operator can may choose 14,4 kbit/s, 28,8 kbit/s or 57,6 kbit/s, any of the possible values less or equal to WAIUR. (Note 1)
Delivery Order	Yes	
Maximum SDU size	576 bits	
Transfer Delay	250 ms	Subject to operator tuning
Traffic Handling Priority	-	Not applicable to the streaming traffic class
Source statistics descriptor	Unknown	
SDU Parameters		
SDU error ratio	10 %	Subject to operator tuning
Residual bit error ratio	10^{-3}	Subject to operator tuning.
Delivery of erroneous SDUs	No error detection consideration	
SDU format information		
RAB Subflow Combination bit rate	57,6 kbit/s	(Note 2)
RAB Subflow Combination bit rate	28,8 kbit/s	(Note 2)
RAB Subflow Combination bit rate	14,4 kbit/s	
RAB Subflow Combination bit rate	0 kbit/s	indicates DTX, RFCI is not assigned
NOTE 1: If WAIUR is less or equal to 14.4 kbit/s then GBR and MBR shall be set to 14.4 kbit/s.		
NOTE 2: Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.		

NOTE 1: ~~In case the WAIUR is less than Guaranteed bit rate, the Maximum bit rate is set to the Guaranteed bit rate.~~

NOTE 2: ~~Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.~~

CR-Form-v3

CHANGE REQUEST

⌘ **27.001** **CR 050** ⌘ rev **-** ⌘ Current version: **4.2.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ RAB- assignment request (RAB parameter)		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CORRECT	Date:	⌘ 2001-01-15
Category:	⌘ A	Release:	⌘ REL-4
	<i>Use one of the following categories:</i> F (essential 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.		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ To avoid allocation of more resources than requested by the user.
Summary of change:	⌘ Correction of table in B.1.13.2 (GBR and MBR values).
Consequences if not approved:	⌘ Possible incorrect charging due to misalignment between requested and allocated resources.

Clauses affected:	⌘ B.1.13.2		
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ TS 23.910	
Other comments:	⌘		

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- 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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

B.1.13.2 Non-transparent services

Depending on the WAIUR signalled by the MS, the network is allowed to assign any radio resources with a radio access bearer parameter indicating a Quality of Service specifying

QoS Parameter	Value	Comments
Traffic Class	Streaming	Subject to operator tuning
RAB Asymmetry Indicator	Symmetric	
Maximum bit rate	14.4, 28.8, 57.6 kbit/s	Maximum bit rate is set to the highest value \leq WAIUR (Note 1)
Guaranteed bit rate	14.4, 28.8, 57.6 44.4 kbit/s	Operator can may choose any of the possible values less or equal to WAIUR. (Note 1). 14.4, 28.8 or 57.6 kbit/s.
Delivery Order	Yes	
Maximum SDU size	576 bits	
Transfer Delay	250 ms	Subject to operator tuning
Traffic Handling Priority	-	Not applicable to the streaming traffic class
Source statistics descriptor	Unknown	
SDU Parameters		
SDU error ratio	10 %	Subject to operator tuning
Residual bit error ratio	10^{-3}	Subject to operator tuning.
Delivery of erroneous SDUs	No error detection consideration	
SDU format information		
RAB Subflow Combination bit rate	57.6 kbit/s	(Note 2)
RAB Subflow Combination bit rate	28.8 kbit/s	(Note 2)
RAB Subflow Combination bit rate	14.4 kbit/s	
RAB Subflow Combination bit rate	0 kbit/s	indicates DTX, RFCI is not assigned
<p>NOTE 1: If WAIUR is less or equal to 14.4 kbit/s then GBR and MBR shall be set to 14.4 kbit/s. In case the WAIUR is less than Guaranteed bit rate, the Maximum bit rate is set to the Guaranteed bit rate.</p> <p>NOTE 2: Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.</p>		

The final decision about the radio interface configuration is taken by the RNC during the Assignment procedure.

CR-Form-v3

CHANGE REQUEST

⌘ **23.910 CR 028** ⌘ rev **-** ⌘ **Current vers 4.1.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ RAB- assignment request (RAB parameter)		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CS Bearers	Date:	⌘ 26-02-2001
Category:	⌘ A	Release:	⌘ REL-4
	<i>Use one of the following categories:</i> F (essential 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.		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ To avoid allocation of more resources than requested by the user.
Summary of change:	⌘ Correction of table in 5.2.1 (GBR and MBR values).
Consequences if not approved:	⌘ Possible incorrect charging due to misalignment between requested and allocated resources.

Clauses affected:	⌘ 5.2.1.		
Other specs affected:	<input checked="" type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘ TS 27.001	
Other comments:	⌘		

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- 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://www.3gpp.org/specs/>. For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

5.2 BC-IE to RAB QoS Mapping

Since UMTS bearer services are described by BC-IEs and RABs by QoS parameters, this section provides implicitly a mapping between the UMTS bearer services and the possible RABs that support them. The QoS mapping is based on TS 23.107.

5.2.1 Non-transparent services, including Fax

Service identified by the BC IE	Non-transparent data	Comments
Traffic Class	Streaming	Subject to operator tuning
RAB Asymmetry Indicator	Symmetric	
Maximum bit rate (1)	14,4 kbit/s, 28,8 kbit/s, 57.6 kbit/s	Maximum bit rate is set to the highest value \leq WAIUR (Note 1).
Guaranteed bit rate	14.4 kbit/s, 28.8 kbit/s, 57.6 kbit/s 14,4 kbit/s	Operator can may choose 14,4 kbit/s, 28,8 kbit/s or 57,6 kbit/s. any of the possible values less or equal to WAIUR. (Note 1)
Delivery Order	Yes	
Maximum SDU size	576 bits	
Transfer Delay	250 ms	Subject to operator tuning
Traffic Handling Priority	-	Not applicable to the streaming traffic class
Source statistics descriptor	Unknown	
SDU Parameters		
SDU error ratio	10 %	Subject to operator tuning
Residual bit error ratio	10^{-3}	Subject to operator tuning.
Delivery of erroneous SDUs	No error detection consideration	
SDU format information		
RAB Subflow Combination bit rate	57,6 kbit/s	(Note 2)
RAB Subflow Combination bit rate	28,8 kbit/s	(Note 2)
RAB Subflow Combination bit rate	14,4 kbit/s	
RAB Subflow Combination bit rate	0 kbit/s	indicates DTX, RFCI is not assigned
<p><u>NOTE 1: If WAIUR is less or equal to 14.4 kbit/s then GBR and MBR shall be set to 14.4 kbit/s.</u></p> <p><u>NOTE 2: Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.</u></p>		

~~NOTE 1: In case the WAIUR is less than Guaranteed bit rate, the Maximum bit rate is set to the Guaranteed bit rate.~~

~~NOTE 2: Only RAB subflow combination bit rates \leq maximum bit rate shall be specified.~~

3GPP TSG CN WG3 Meeting #15
Sophia, France. 26th February– 2nd March 2001

N3-010147

CR-Form-v3
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 27.001 CR 051 ⌘ rev - ⌘ Current version: 3.7.0 ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Handover for 56 kbit/s [Removal of flow diagram B.1.3.1.7]		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CS Data Bearers	Date:	⌘ 26-02-2001
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> of the following categories: F (essential 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)

Reason for change:	⌘ Inconsistencies related to synchronous transparent bearer services at 56 kbit/s causing particular handover problems. Diagram B.1.3.17 should have been shown as deleted in N3-000615 but this was forgotten due to a mistake (See CR-045).
Summary of change:	⌘ Deleted flow diagram B.1.3.1.7 (Bit transparent 56 kbit/s (RDI) and 64kbit/s (UDI) (UTRAN)).
Consequences if not approved:	⌘ Duplicated/confusing information in specification.

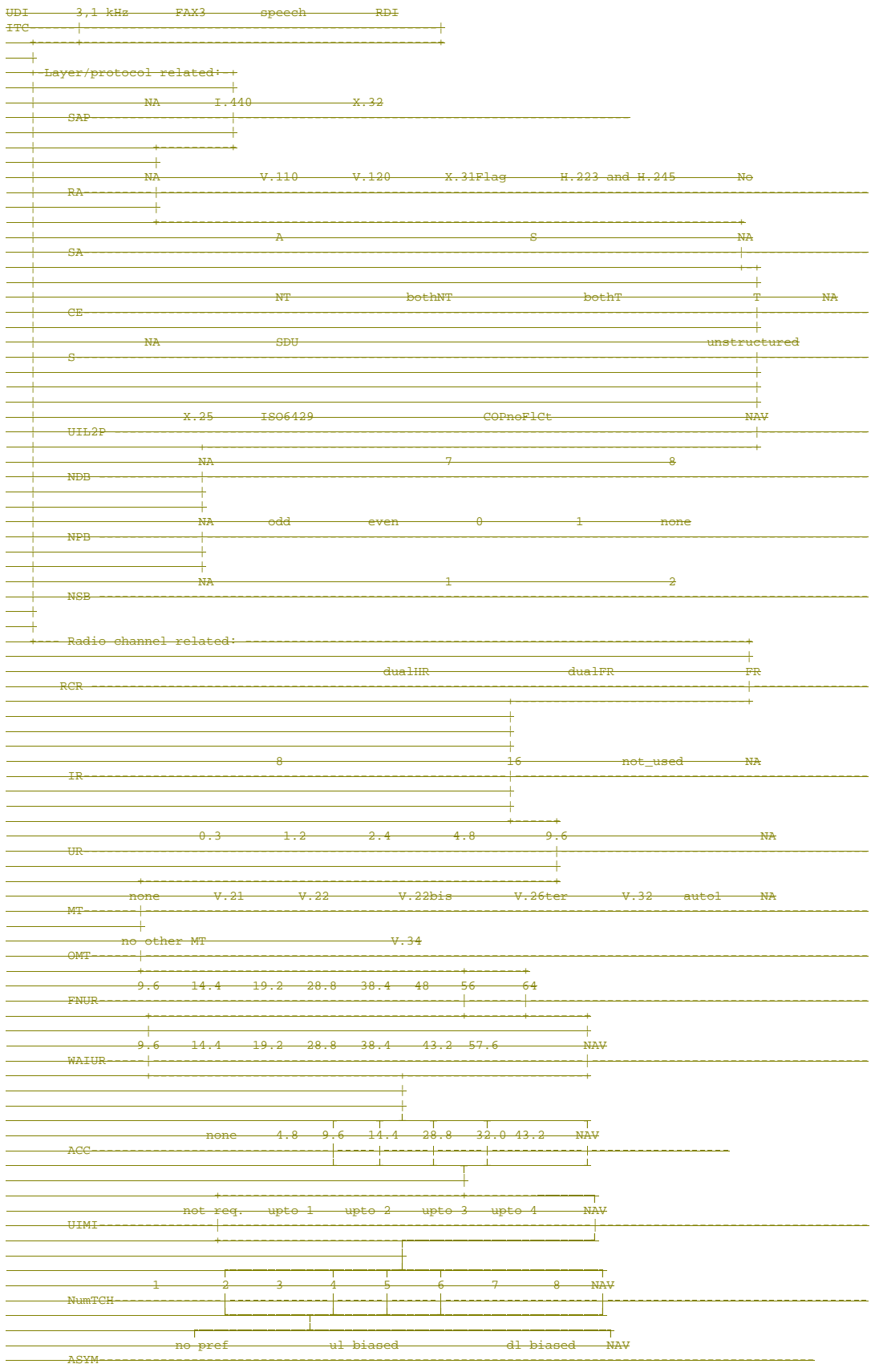
Clauses affected:	⌘ B.1.3.1.7		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications		⌘
Other comments:	⌘		

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- 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.

B.1.3.1.7 Bit transparent 56 kbit/s (RDI) and 64kbit/s (UDI) (UTRAN)



~~WAIUR, UIMI and ASYM shall be available only if the ACC includes TCH/F32.0.~~

~~ACC and NumTCH may be available in order to support handover to GSM.~~

See B.1.3.1.3 and B.1.3.1.4.

3GPP TSG CN WG3 Meeting #15
Sophia, France. 26th February– 2nd March 2001

N3-010148

CR-Form-v3
CHANGE REQUEST
⌘ 27.001 CR 052 ⌘ rev - ⌘ Current version: 4.2.0 ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Handover for 56 kbit/s [Removal of flow diagram B.1.3.1.7]		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CORRECT	Date:	⌘ 26-02-2001
Category:	⌘ A	Release:	⌘ REL-4
	Use <u>one</u> of the following categories: F (essential 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)

Reason for change:	⌘ Inconsistencies related to synchronous transparent bearer services at 56 kbit/s causing particular handover problems. Diagram B.1.3.17 should have been shown as deleted in N3-000614 but this was forgotten due to a mistake (See CR-044).
Summary of change:	⌘ Deleted flow diagram B.1.3.1.7 Bit transparent 56 kbit/s (RDI) and 64kbit/s (UDI) (UTRAN)
Consequences if not approved:	⌘ Duplicated/confusing information in specification.

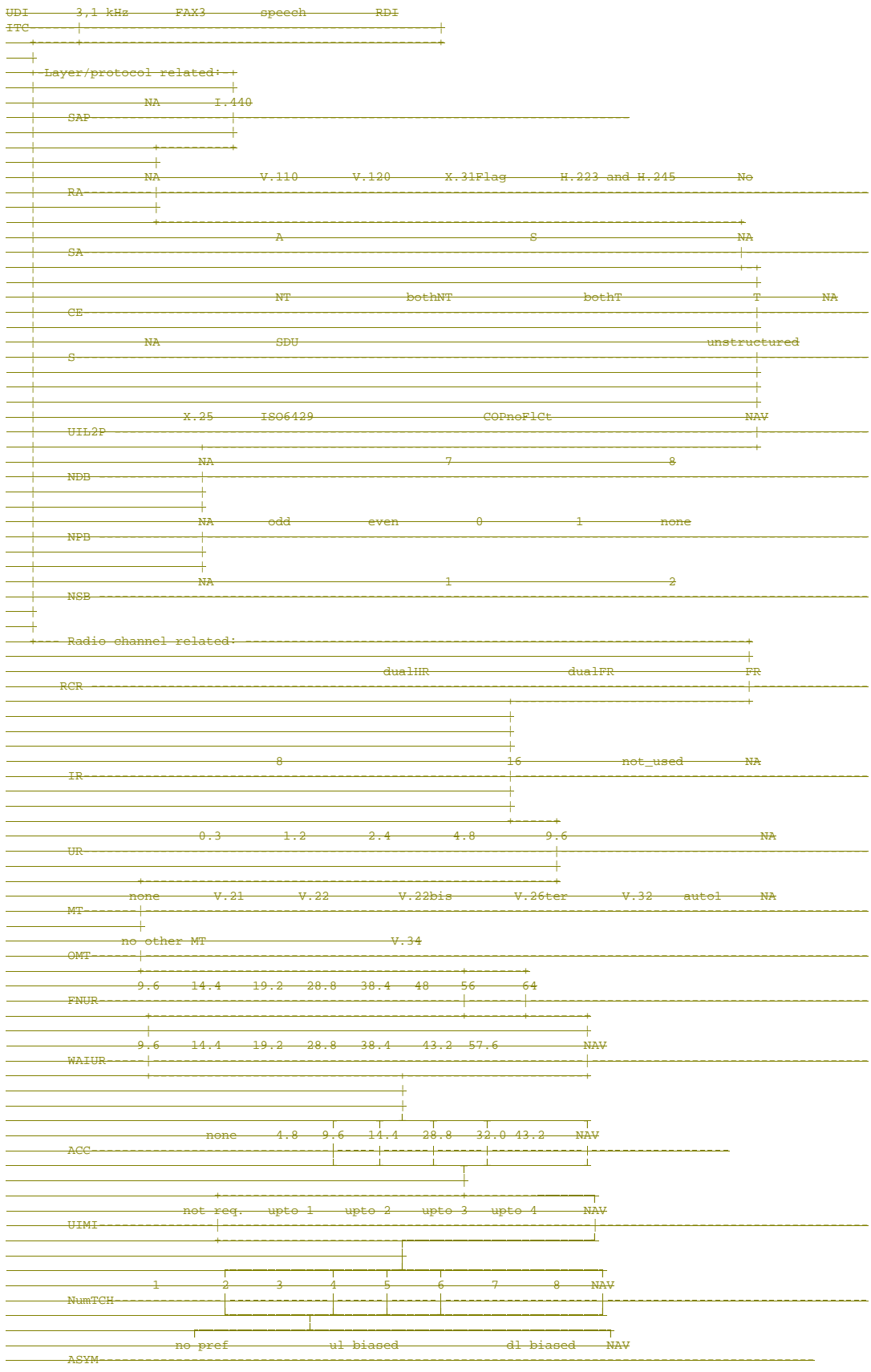
Clauses affected:	⌘ B.1.3.1.7	
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications ⌘ <input type="checkbox"/> O&M Specifications ⌘	
Other comments:	⌘	

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- 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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

B.1.3.1.7 Bit transparent 56 kbit/s (RDI) and 64kbit/s (UDI) (UTRAN)



~~WAIUR, UIMI and ASYM shall be available only if the ACC includes TCH/F32.0.~~

~~ACC and NumTCH may be available in order to support handover to GSM.~~

See B.1.3.1.3 and B.1.3.1.4.

3GPP TSG CN WG3 Meeting #16
Sophia, France. 26th Feb - 2nd March 2001

N3-010158

CR-Form-v3
CHANGE REQUEST
⌘ 27.001 CR 047r1 ⌘ rev - ⌘ Current version: 4.2.0 ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Removal of blocking of higher modem speeds		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CORRECT	Date:	⌘ 28-02-2001
Category:	⌘ A	Release:	⌘ REL-4
	Use <u>one</u> of the following categories: F (essential 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)

Reason for change:	⌘ Addition of WAIUR 57.6 kbit/s for support of V.90 modem and insertion of NA values for IR and UR.
Summary of change:	⌘ Added WAIUR 57.6 kbit/s in B.1.2.2, changed parameter values for FTM, PIAFS and Fax in UMTS, inserted NA values for UR/IR and corrected ACC value in Table B.5 part 3 and deleted the term R00. Restructured sequence of octets in flow diagrams.
	Note: Modifications of the flow diagrams in B.1.2.2 B.1.2.3, B.1.2.4 and B.1.10.3 are indicated as follows: New diagrams are highlighted with Green colour Deleted diagrams are highlighted with Blue colour
Consequences if not approved:	⌘ Not possible to support V.90 modems.

Clauses affected:	⌘ 1, Annex B:Table B.5 part 1(User Rate) and table B.5 part 3 (ACC), B.1.2.2, B.1.2.3, B.1.2.4 and B.1.10.3.		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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/3G_Specs/CRs.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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

1 Scope

The present document is based on the principles of terminal adaptor functions presented in the ITU-T I-series of recommendations (I.460 to I.463).

The PLMN supports a wide range of voice and non-voice services in the same network. In order to enable non-voice traffic in the PLMN there is a need to connect various kinds of terminal equipment to the Mobile Termination (MT). The target of the present document is to outline the functions needed for the terminal adaptation.

In the 3GPP TS 22.002 the bearer services are described. The general network configuration is described in 3GPP TS 23.002 and the GSM PLMN access reference configuration is defined in 3GPP TS 04.02. The various connection types used in the GSM PLMN are presented in 3GPP TS 43.010. Terminology used in the present document is presented in 3GPP TS 01.04, 3GPP TR 21.905 and 3GPP TS 29.990. For support of data services between a PLMN and other networks see 3GPP TS 29.007.

The present document is valid for a 2nd generation PLMN (GSM) as well as for a 3rd generation PLMN (UMTS). If text applies only for one of these systems it is explicitly mentioned by using the terms "GSM" and "UMTS". If text applies to both of the systems, but a distinction between the ISDN/PSTN and the PLMN is necessary, the term "PLMN" is used.

NOTE: From R99 onwards the following services are no longer required by a PLMN:

- the dual Bearer Services "alternate speech/data" and "speech followed by data";
- the dedicated services for PAD and Packet access;
- BS 21 ... 26 and BS 31 ... 34.

From ~~R00-REL-4~~ onwards the following service is no longer required by a PLMN:

- the synchronous Bearer Service non-transparent (BS 30 NT).

The support of these services is still optional. The specification of these services is not within the scope of the present document. For that, the reader is referred to GSM Release 98.

Annex B (normative): Setting of Bearer Capability, Low Layer Compatibility and High Layer Compatibility Information Element for PLMN Bearer Services and PLMN TeleServices

Table B.5: BC parameter setting (part 1)

Abbreviations for Parameters and Values:		common setting of field values	
		default setting of field values (NA)	
ITC...Information Transfer Capability:	<ul style="list-style-type: none"> - Speech - UDI..Unrestricted Digital - FAX3..Group 3 Facsimile - 3,1 kHz..3,1 kHz Ex PLMN - RDI..Restricted Digital 	V	V
TM....Transfer Mode:	<ul style="list-style-type: none"> - ci..Circuit 	X	X
S.....Structure:	<ul style="list-style-type: none"> - SDU..Service Data Unit Integrity - Unstructured 	X	
C.....Configuration:	<ul style="list-style-type: none"> - pp..Point to point 	X	X
E.....Establishment:	<ul style="list-style-type: none"> - de..Demand 	X	X
SA....Sync/Async:	<ul style="list-style-type: none"> - S..Synchronous - A..Asynchronous 		
N.....Negotiation	<ul style="list-style-type: none"> - ibn..in band negotiation not possible 	X	X
UR....User Rate:	<ul style="list-style-type: none"> - 0.3..0.3 kbit/s - 1.2..1.2 kbit/s - 2.4..2.4 kbit/s - 4.8..4.8 kbit/s - 9.6..9.6 kbit/s 	X	
IR....Intermediate Rate:	<ul style="list-style-type: none"> - 4.. 4 kbit/s - 8.. 8 kbit/s - 16.. 16 kbit/s - not_used..not used 	X	
NICT..Network Independent Clock on Tx:	<ul style="list-style-type: none"> - not_required.. Not required - required 	X	X
NICR..Network Independent Clock on Rx:	<ul style="list-style-type: none"> - not_accepted..not accepted - accepted 	X	X
NSB...Number of Stop Bits:	<ul style="list-style-type: none"> - 1..1 bit - 2..2 bit 	X	
NDB...Number of Data Bits Excluding Parity If Present:	<ul style="list-style-type: none"> - 7.. 7 bit - 8.. 8 bit 	X	
NPB...Parity Information:	<ul style="list-style-type: none"> - Odd - Even - None - 0.. Forced to 0 - 1.. Forced to 1 	X	
UIL1P.User Information Layer 1 Protocol	<ul style="list-style-type: none"> - def..default layer 1 protocol 	X	X

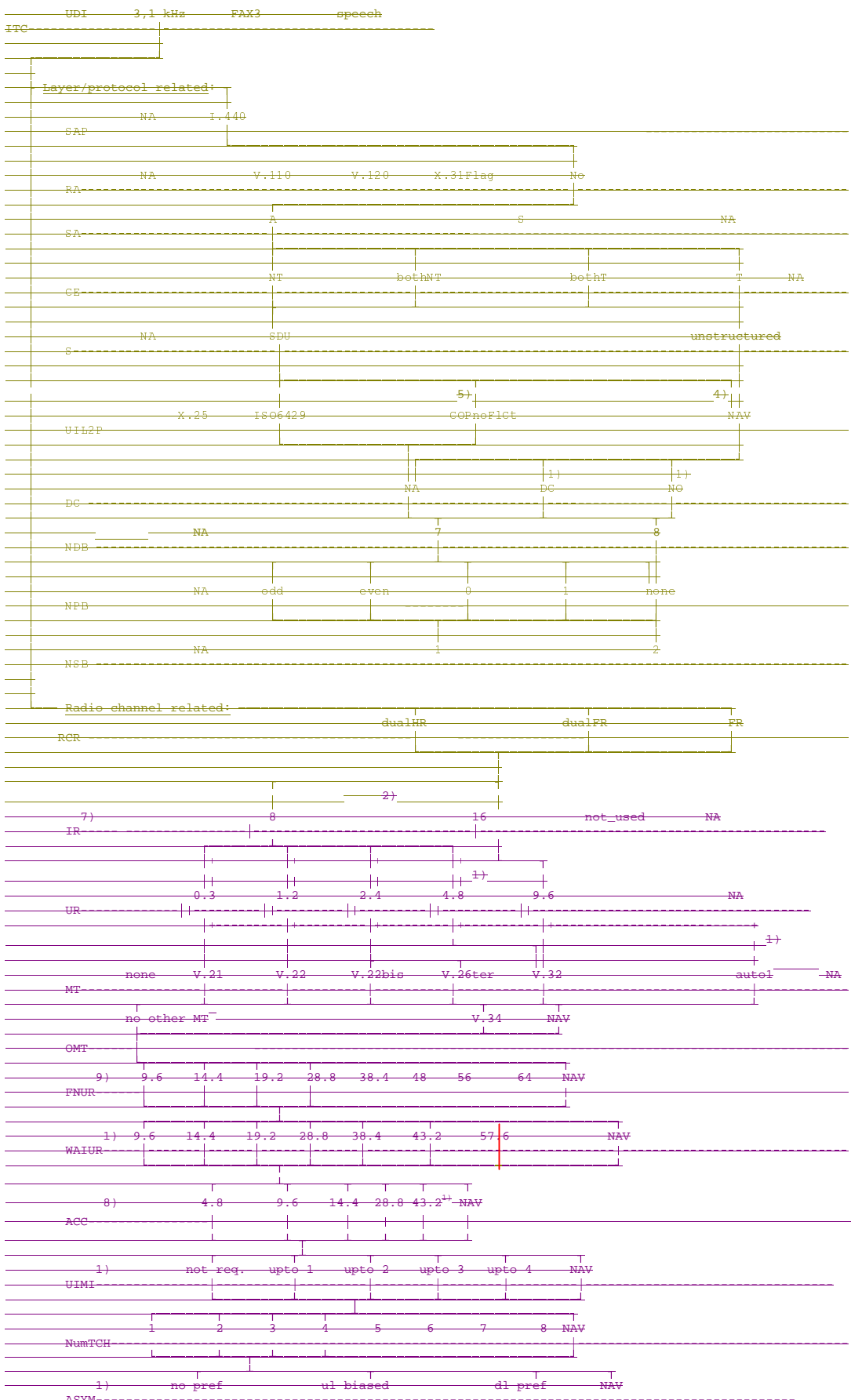
Table B.5: BC parameter setting (part 2)

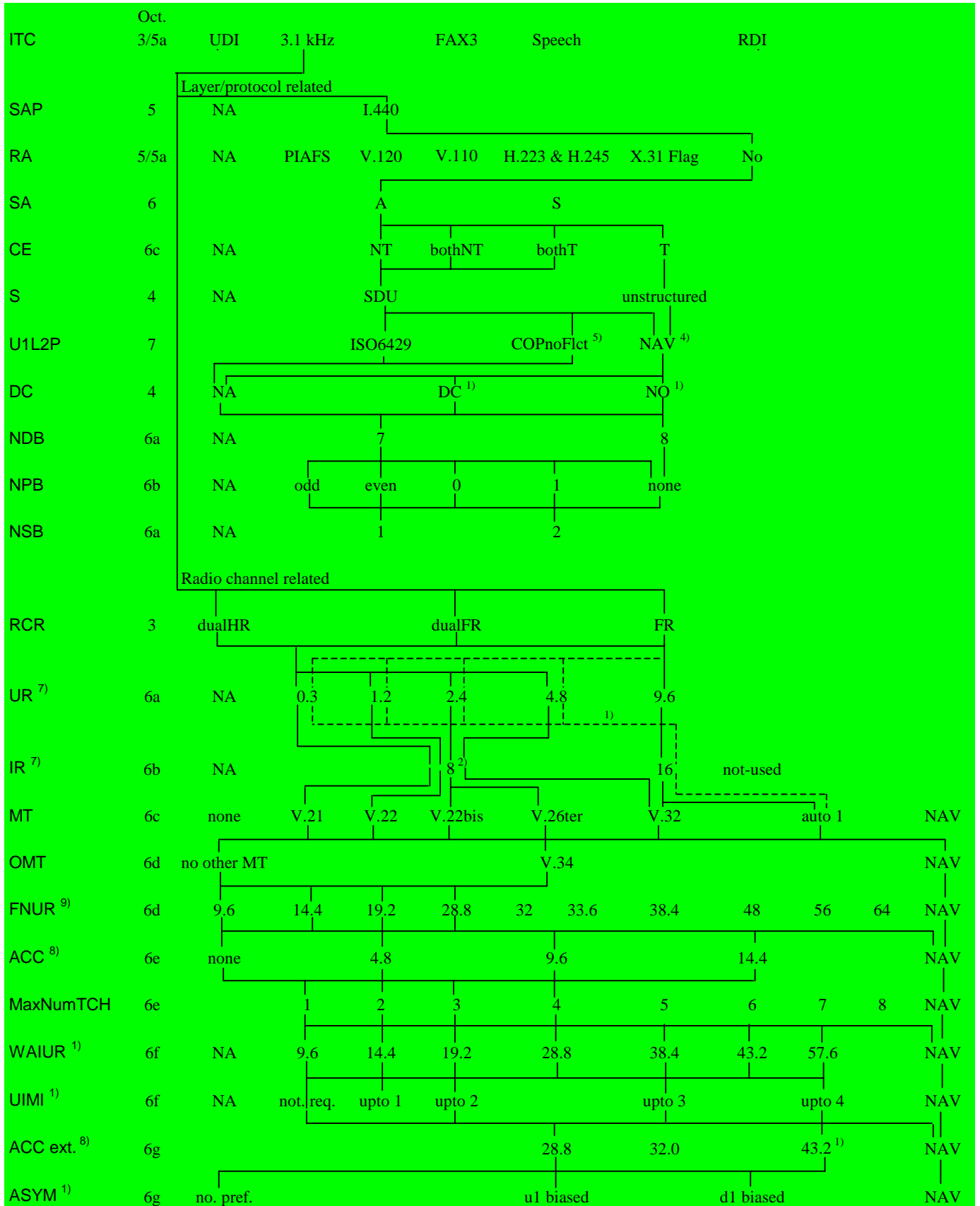
Abbreviations for Parameters and Values	common setting of field values	
	default setting of field values (NA)	
DM...Duplex Mode:	- - fd.. Full Duplex	X X
MT...Modem Type:	- V.21 - V.22 - V.22 bis - V.26 ter - V.32 - autol.. autobauding type 1 - none	X
RCR...Radio Channel Requirement:	- FR Full Rate support only Mobile Station - dual HR Dual Rate support Mobile Station/ Half Rate preferred - dual FR Dual Rate support Mobile Station/ Full Rate preferred	
CE...Connection Element:	- T.. Transparent - NT.. Non Transparent - bothT both transparent preferred - bothNT both non Transparent preferred	
UIL2P.User Information Layer 2 Protocol:	- ISO6429..ISO6429, codeset 0, DC1/DC3 - X.25 - COPnoFlCt..Character oriented protocol with no flow control mechanism	
SAP...Signalling Access Protocol:	- I.440.. I.440/450	X
RA...Rate Adaptation:	- V.110.. V.110/X.30 - X.31Flag.. X.31 flagstuffing - NO.. no rate adaptation - V.120 - PIAFS - H.223 and H.245	X
CS...Coding Standard:	- GSM	X X
NIRR..Negotiation of Intermediate Rate Requested:	NM..No Meaning associated with this value 6kbit/s..6kbit/s radio interface rate requested	X
DC...Data Compression	- DC.. compression possible/allowed - NO.. compression not possible/allowed	X

Table B.5: BC parameter setting (part 3)

Abbreviations for Parameters and Values	common setting of field values	
	default setting of field values (NA)	
FNUR...Fixed Network User Rate	- FNUR not applicable - 9.6.. 9.6 kbit/s - 14.4.. 14.4 kbit/s - 19.2.. 19.2 kbit/s - 28.8.. 28.8 kbit/s - 32.0.. 32.0 kbit/s - 33.6.. 33.6 kbit/s - 38.4.. 38.4 kbit/s - 48.0.. 48.0 kbit/s - 56.0.. 56.0 kbit/s - 64.0.. 64.0 kbit/s	V
WAIUR...Wanted Air Interface User Rate	- WAIUR not applicable - 9.6.. 9.6 kbit/s - 14.4.. 14.4 kbit/s - 19.2.. 19.2 kbit/s - 28.8.. 28.8 kbit/s - 38.4.. 38.4 kbit/s - 43.2.. 43.2 kbit/s - 57.6.. 57.6 kbit/s - int 38.4.. interpreted by the network as 38.4 kbit/s	X
ACC.....Acceptable channel codings	- 4.8.. TCH/F4.8 acceptable - 9.6.. TCH/F9.6 acceptable - 14.4..TCH/F14.4 acceptable - 28.8..TCH/F28.8 acceptable - 32.0..TCH/F32.0 acceptable - 43.2..TCH/F28.8-43.2 acceptable - none..No channel coding (defined by selecting none of the above	
MaxNumTCH...Maximum Number of Traffic Channels	- 1.. 1 TCH - 2.. 2 TCH - 3.. 3 TCH - 4.. 4 TCH - 5.. 5 TCH - 6.. 6 TCH - 7.. 7 TCH - 8.. 8 TCH	
OMT...Other modem type	- no other MT.. no other modem type - V.34.. V.34	
User initiated modification indication	- not req.. user initiated modification not required - upto 1 TCH.. user initiated modification upto 1 TCH may be requested - upto 2 TCH.. user initiated modification upto 2 TCH may be requested - upto 3 TCH.. user initiated modification upto 3 TCH may be requested - upto 4 TCH.. user initiated modification upto 4 TCH may be requested	X
Asymmetry preference indication	- 00 no preference - 01 up link biased asymmetry preferred - 10 down link biased asymmetry preferred	

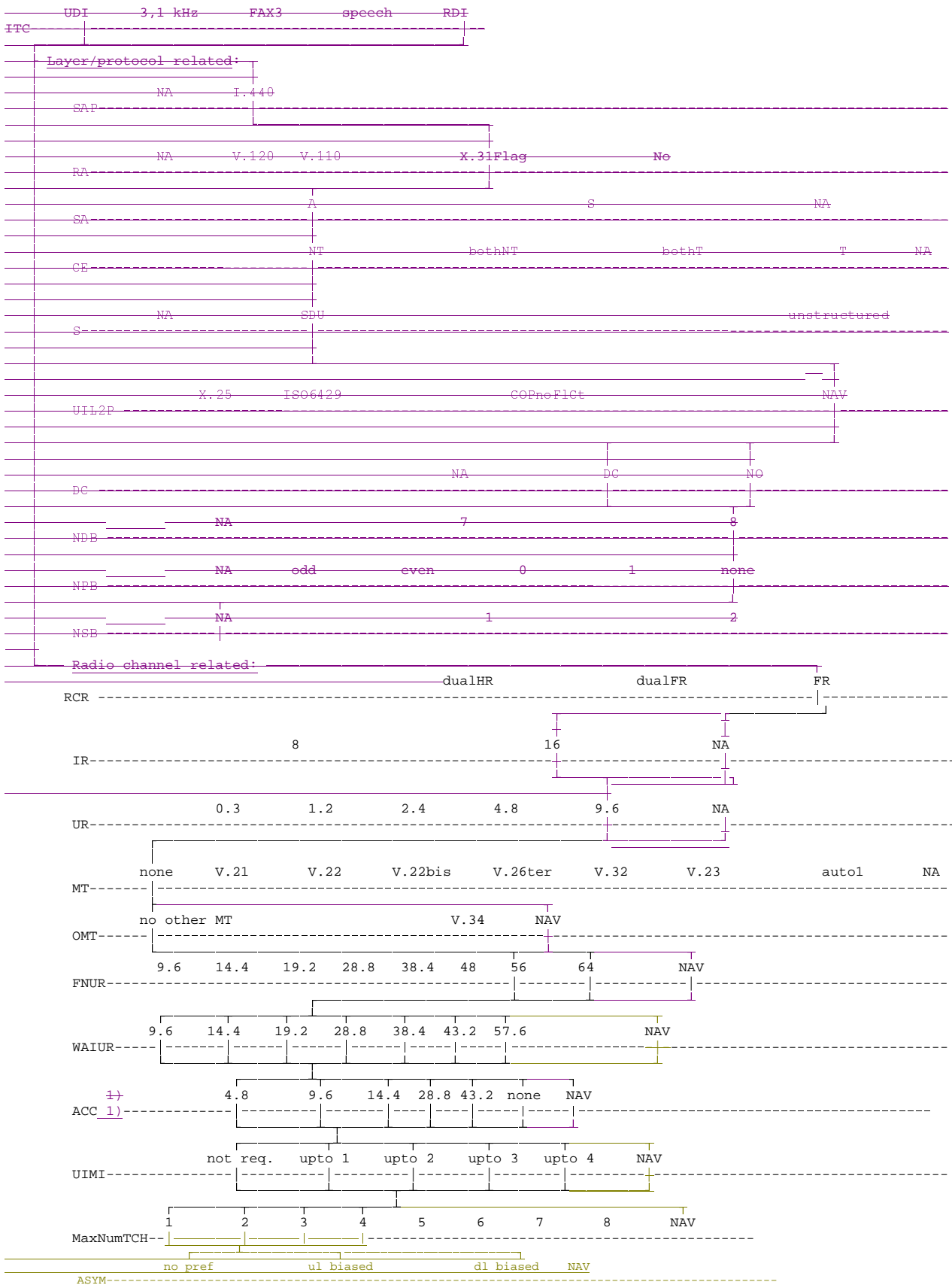
B.1.2.2 3,1 kHz audio ex-PLMN information transfer capability

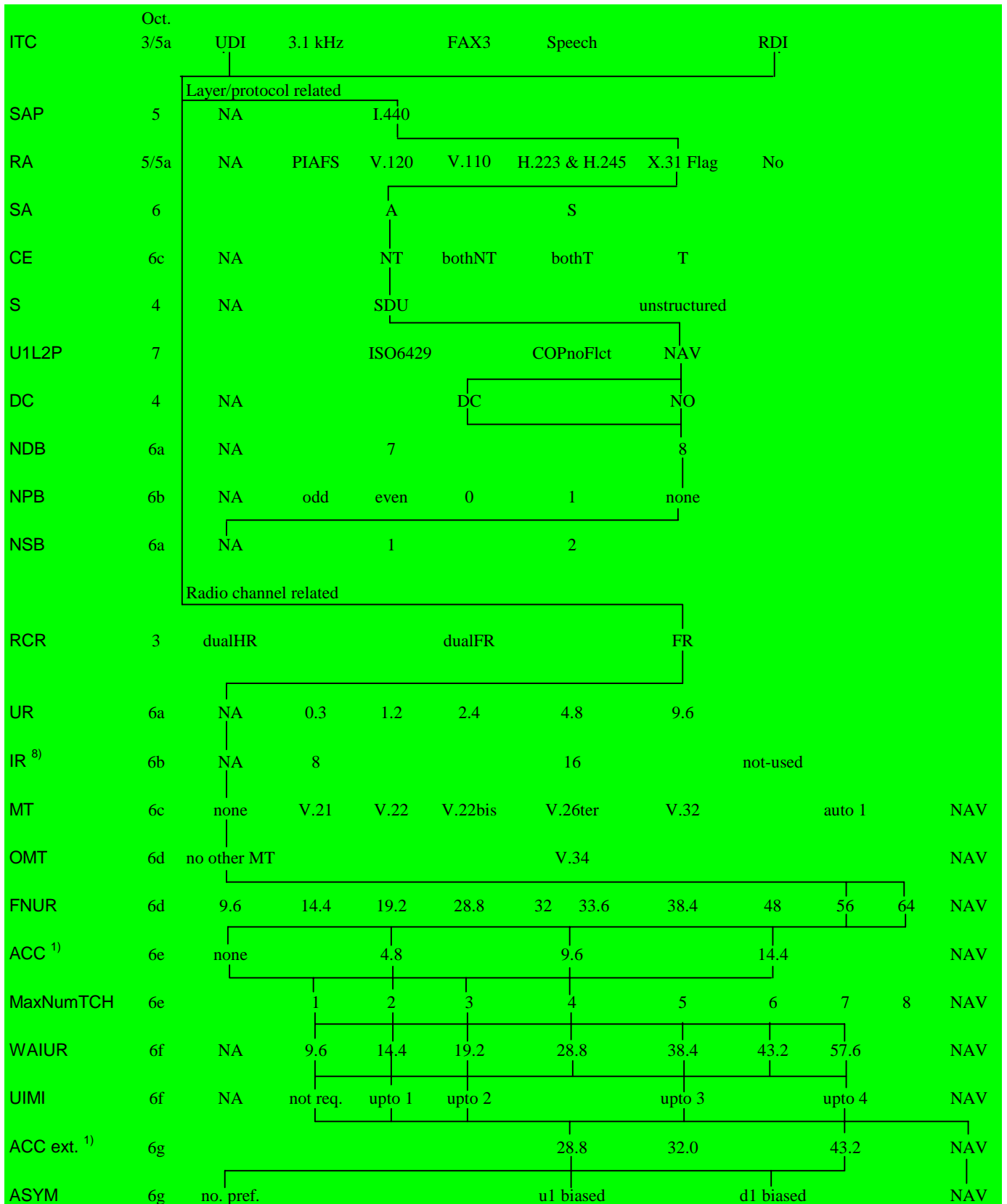




- 1) for CE:NT or "both";
- 2) for CE:T only or CE:NT and NIRR:6kb/s (not for the SETUP message);
- 3) Void;
- 4) for MT CALLS in the SETUP message or MO/MT CALLS with "out-band" flow control requested (not for V.21 modem type);
- 5) for MO/MT CALLS with no flow control requested;
- 6) Void;
- 7) IR and UR are overridden if-by FNUR, ACC and MaxNumTCH ~~are available~~.
- 8) ACC may have several values simultaneously (bit map coding).
- 9) in case of MT = auto1 the value of FNUR has no meaning.

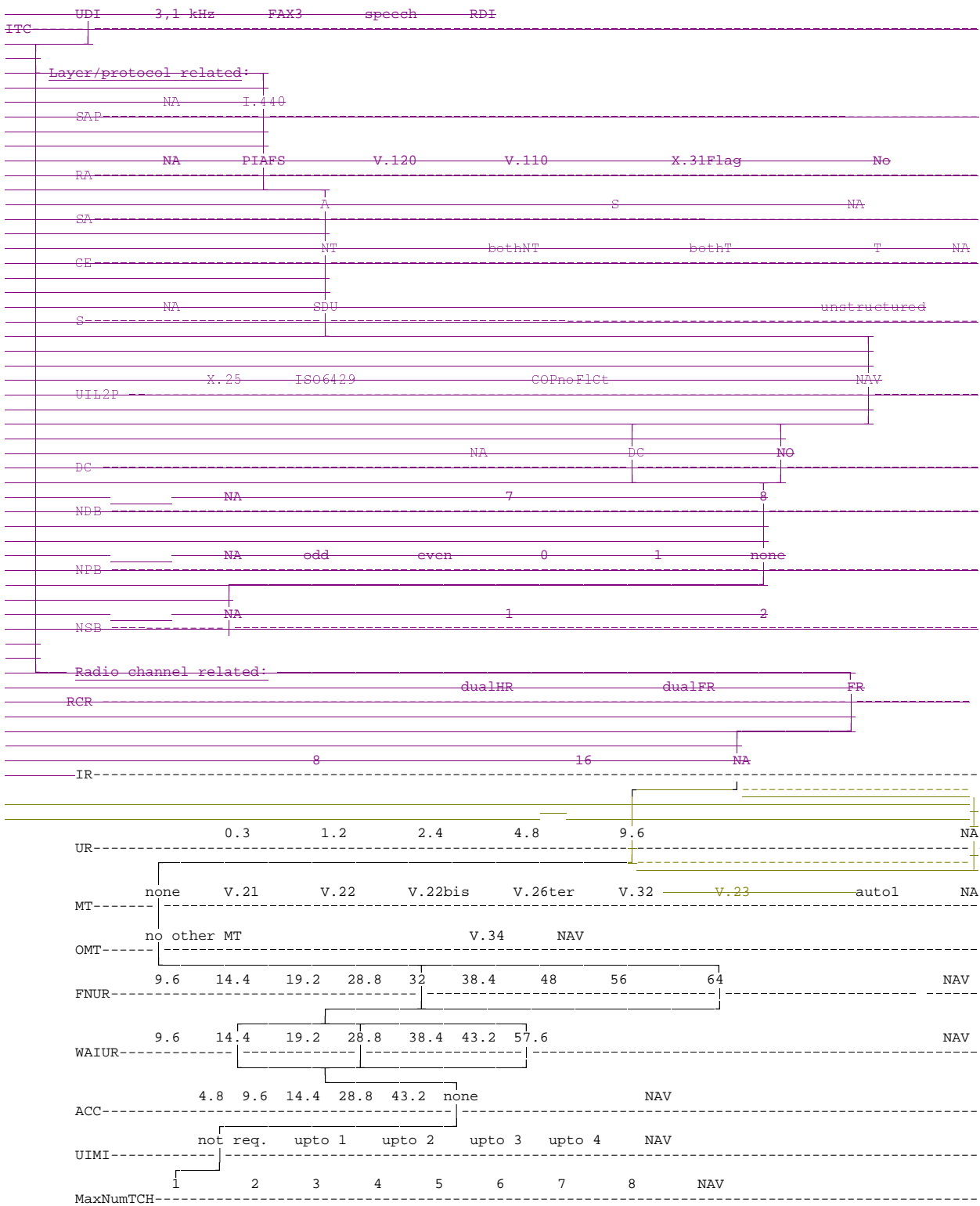
B.1.2.3 Frame Tunnelling Mode

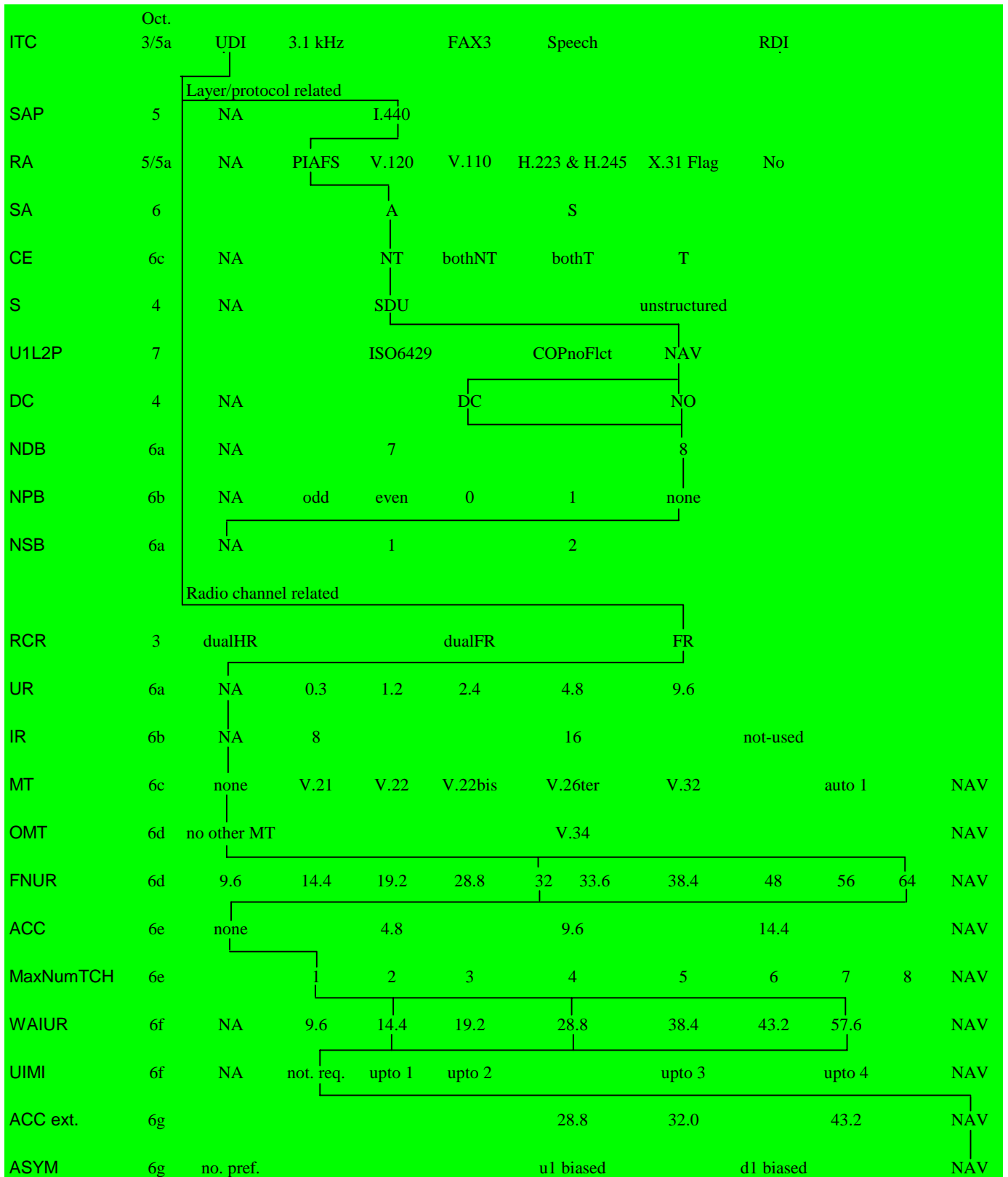




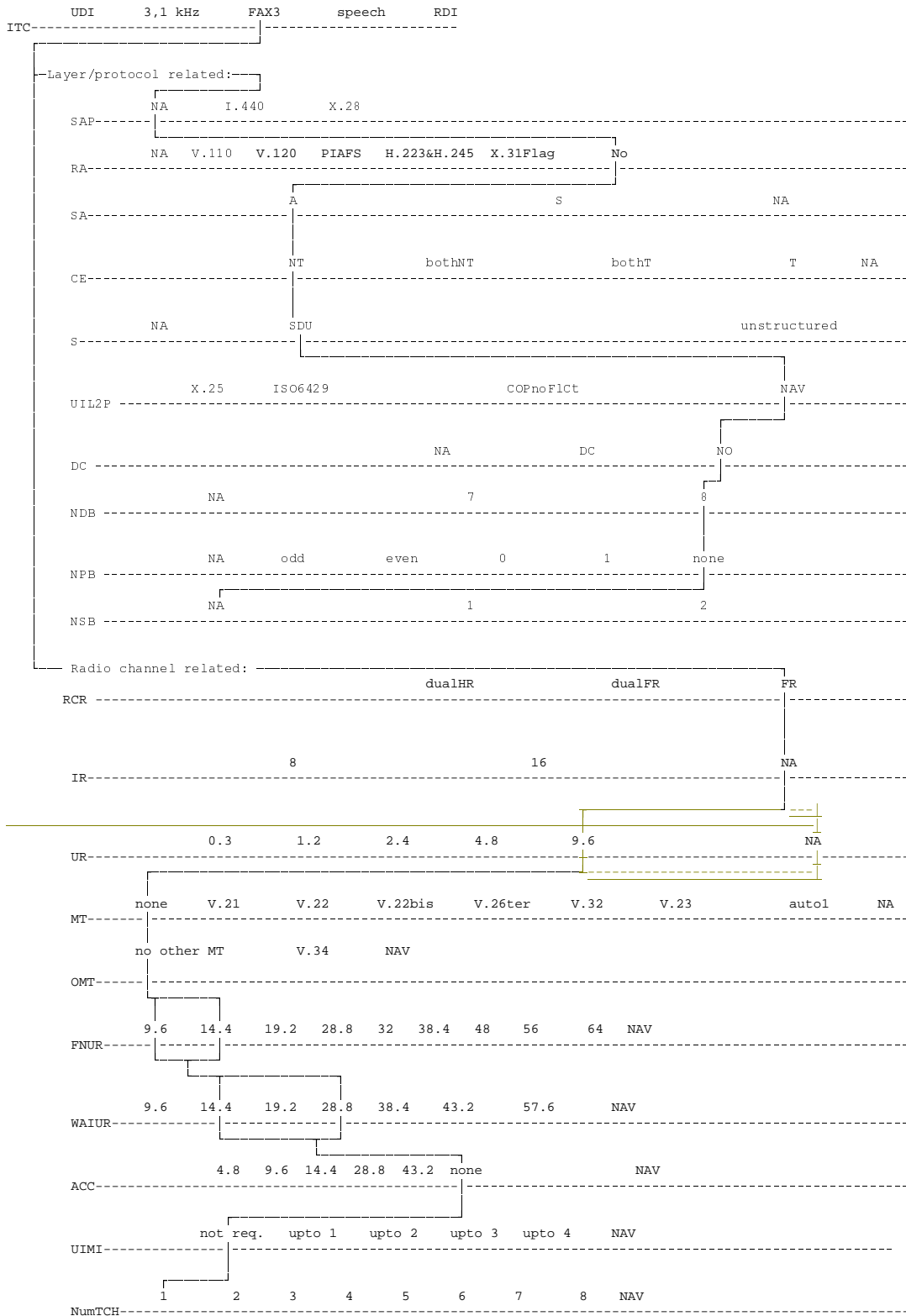
1) _____ACC may have several values simultaneously (bit map coding).

B.1.2.4 PIAFS





B.1.10.3 Teleservice 61, Facsimile group 3 in UMTS



ITC	Oct.	UDI	3.1 kHz	FAX3	Speech	RDI					
		Layer/protocol related									
SAP	5	NA	I.440								
RA	5/5a	NA	PIAFS	V.120	V.110	H.223 & H.245	X.31 Flag	No			
SA	6	NA		A		S					
CE	6c	NA		NT	bothNT	bothT	T				
S	4	NA		SDU			unstructured				
U1L2P	7		ISO6429			COPnoFlct ³⁾	NAV				
DC	4	NA			DC		NO				
NDB	6a	NA		7			8				
NPB	6b	NA	odd	even	0	1	none				
NSB	6a	NA		1		2					
		Radio channel related									
RCR	3	dualHR			dualFR		FR				
UR	6a	NA	0.3	1.2	2.4	4.8	9.6				
IR	6b	NA	8			16		not-used			
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto 1		NAV	
OMT	6d	no other MT				V.34				NAV	
FNUR	6d	9.6	14.4	19.2	28.8	32	33.6	38.4	48	56	64
ACC	6e	none		4.8		9.6		14.4			NAV
MaxNumTCH	6e		1	2	3	4	5	6	7	8	NAV
WAIUR	6f	NA	9.6	14.4	19.2	28.8	38.4	43.2	57.6		NAV
UIMI	6f	NA	not. req.	upto 1	upto 2		upto 3		upto 4		NAV
ACC ext.	6g					28.8	32.0		43.2		NAV
ASYM	6g	no. pref.					u1 biased		d1 biased		NAV

3GPP TSG CN WG3 Meeting #16
Sophia, France. 26th Feb– 2nd March 2001

N3-010168

CR-Form-v3
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 27.001 CR 046r1 ⌘ rev - ⌘ Current version: 3.7.0 ⌘

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

Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Removal of the blocking of higher modem speeds and editorial changes		
Source:	⌘ TSG_CN WG3		
Work item code:	⌘ CS Data Bearers	Date:	⌘ 28-02-2001
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> of the following categories: F (essential 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)

Reason for change:	⌘ Addition of WAIUR 57.6 kbit/s for support of V.90 modem, corrected parameter values for FTM and correction of various errors.
Summary of change:	⌘ Added WAIUR 57.6 kbit/s in B.1.2.2, corrected Table B.5, corrected parameter values for FTM and removed various minor errors. Added ASYM in B.1.2.3 and B.1.2.4. Note: New Excel diagrams are highlighted with Green colour
Consequences if not approved:	⌘ Not possible to support V.90 modems.

Clauses affected:	⌘ Annex B, Table B.5, B.1.2.1, B.1.2.2, B.1.2.3, B.1.2.4, B.1.3.1.3, B.1.3.1.5- B.1.3.1.6		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> 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/3G_Specs/CRs.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://www.3gpp.org/specs/> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

Annex B (normative): Setting of Bearer Capability, Low Layer Compatibility and High Layer Compatibility Information Element for PLMN Bearer Services and PLMN TeleServices

Table B.5: BC parameter setting (part 1)

		common setting of field values		
Abbreviations for Parameters and Values				
		default setting of field values (NA)	V	V
ITC...Information Transfer Capability:	- Speech - UDI..Unrestricted Digital - FAX3..Group 3 Facsimile - 3,1 kHz..3,1 kHz Ex PLMN - RDI..Restricted Digital			
TM....Transfer Mode:	- ci..Circuit		X	X
S.....Structure:	- SDU..Service Data Unit Integrity - Unstructured		X	
C.....Configuration:	- pp..Point to point		X	X
E.....Establishment:	- de..Demand		X	X
SA....Sync/Async:	- S..Synchronous - A..Asynchronous			
N....Negotiation	- ibn..in band negotiation not possible		X	X
UR....User Rate:	- 0.3..0.3 kbit/s - 1.2..1.2 kbit/s - 2.4..2.4 kbit/s - 4.8..4.8 kbit/s - 9.6..9.6 kbit/s		X	
IR....Intermediate Rate:	- 4.. 4 kbit/s - 8.. 8 kbit/s - 16.. 16 kbit/s - not_used..not used		X	
NICT..Network Independent Clock on Tx:	- not_required.. Not required - required		X	X
NICR..Network Independent Clock on Rx:	- not_accepted..not accepted - accepted		X	X
NSB...Number of Stop Bits:	- 1..1 bit - 2..2 bit		X	
NDB...Number of Data Bits Excluding Parity If Present:	- 7.. 7 bit - 8.. 8 bit		X	
NPB...Parity Information:	- Odd - Even - None - 0.. Forced to 0 - 1.. Forced to 1		X	

UIL1P.User Information Layer 1 Protocol	- def..default layer 1 protocol	X	X
---	---------------------------------	---	---

Table B.5: BC parameter setting (part 2)

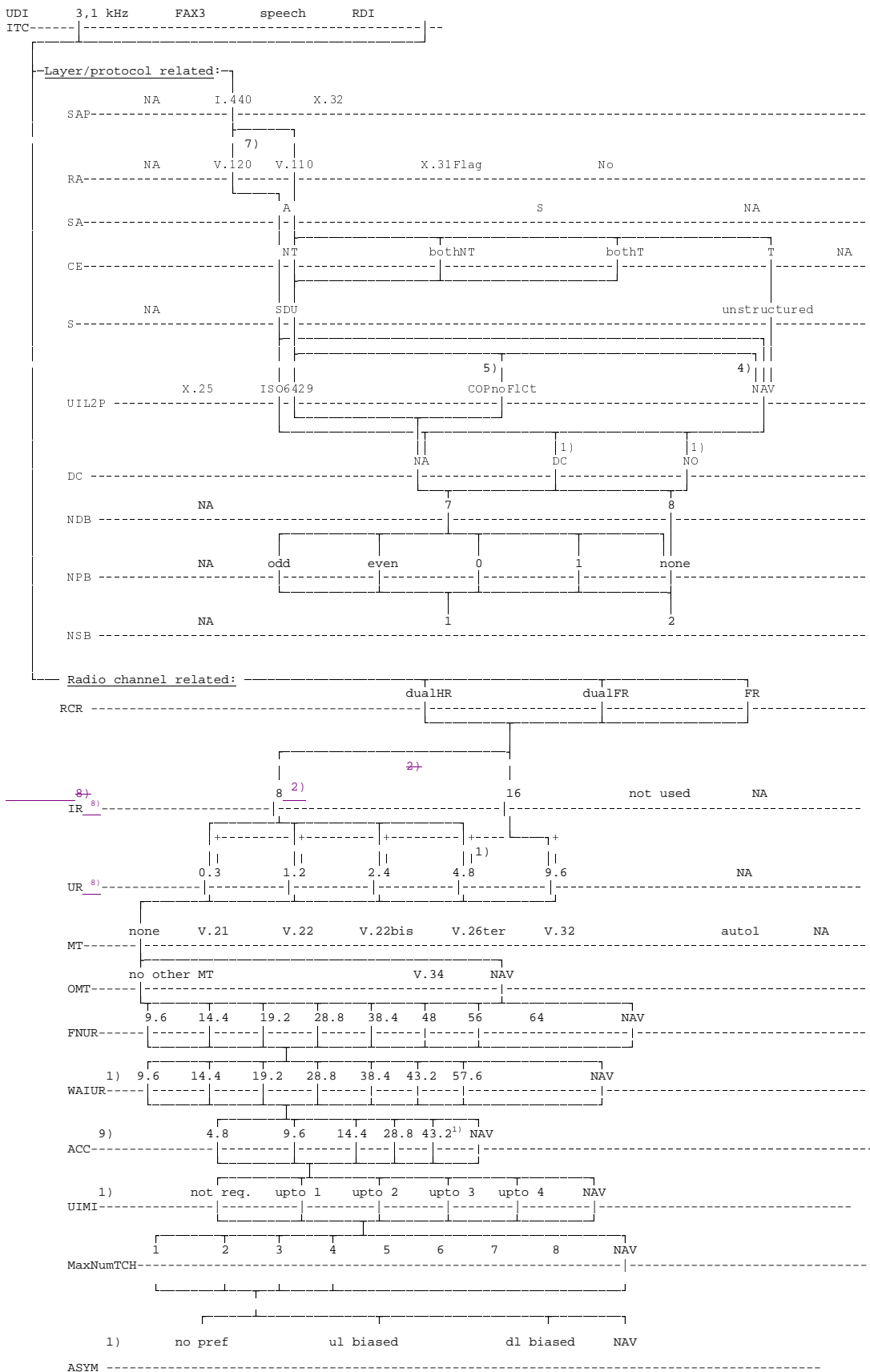
Abbreviations for Parameters and Values		common setting of field values	
		default setting of field values (NA)	
DM....Duplex Mode:	- - fd.. Full Duplex	V X	V X
MT....Modem Type:	- V.21 - V.22 - V.22 bis - V.26 ter - V.32 - auto1.. autobauding type 1 - none	X	
RCR...Radio Channel Requirement:	- FR Full Rate support only Mobile Station - dual HR Dual Rate support Mobile Station/ Half Rate preferred - dual FR Dual Rate support Mobile Station/ Full Rate preferred		
CE....Connection Element:	- T.. Transparent - NT.. Non Transparent - bothT both transparent preferred - bothNT both non Transparent preferred		
UIL2P.User Information Layer 2 Protocol:	- ISO6429..ISO6429, codeset 0, DC1/DC3 - X.25 - X.75..X.75 layer 2 modified (CAPI) - COPnoFICt..Character oriented protocol with no flow control mechanism		
SAP...Signalling Access Protocol:	- I.440.. I.440/450 - X.32	X	
RA....Rate Adaptation:	- V.110.. V.110/X.30 - X.31Flag.. X.31 flagstuffing - NO.. no rate adaptation - V.120 - PIAFS - H.223 and H.245	X	
CS....Coding Standard:	- GSM	X	X
NIRR..Negotiation of Intermediate Rate Requested:	NM..No Meaning associated with this value 6kbit/s..6kbit/s radio interface rate requested	X	
DC....Data Compression	- DC.. compression possible/allowed - NO.. compression not possible/allowed	X	

Table B.5: BC parameter setting (part 3)

		common setting of field values	
Abbreviations for Parameters and Values		default setting of field values (NA)	
FNUR...Fixed Network User Rate	<ul style="list-style-type: none"> - FNUR not applicable - 9.6.. 9.6 kbit/s - 14.4.. 14.4 kbit/s - 19.2.. 19.2 kbit/s - 28.8.. 28.8 kbit/s - 32.0.. 32.0 kbit/s - 33.6.. 33.6 kbit/s - 38.4.. 38.4 kbit/s - 48.0.. 48.0 kbit/s - 56.0.. 56.0 kbit/s - 64.0.. 64.0 kbit/s 		V
WAIUR...Wanted Air Interface User Rate	<ul style="list-style-type: none"> - WAIUR not applicable - 9.6.. 9.6 kbit/s - 14.4.. 14.4 kbit/s - 19.2.. 19.2 kbit/s - 28.8.. 28.8 kbit/s - 38.4.. 38.4 kbit/s - 43.2.. 43.2 kbit/s - 57.6.. 57.6 kbit/s - int 38.4.. interpreted by the network as 38.4 kbit/s 		X
ACC.....Acceptable channel codings	<ul style="list-style-type: none"> - 4.8.. TCH/F4.8 acceptable - 9.6.. TCH/F9.6 acceptable - 14.4..TCH/F14.4 acceptable - 28.8..TCH/F28.8 acceptable - 32.0..TCH/F32.0 acceptable - 43.2..TCH/F28.8<u>43.2</u> acceptable - none..No channel coding (defined by selecting none of the above) 		
MaxNumTCH...Maximum Number of Traffic Channels	<ul style="list-style-type: none"> - 1.. 1 TCH - 2.. 2 TCH - 3.. 3 TCH - 4.. 4 TCH - 5.. 5 TCH - 6.. 6 TCH - 7.. 7 TCH - 8.. 8 TCH 		
OMT...Other modem type	<ul style="list-style-type: none"> - no other MT.. no other modem type - V.34.. V.34 		
User initiated modification indication	<ul style="list-style-type: none"> - not req.. user initiated modification not required - upto 1 TCH.. user initiated modification upto 1 TCH may be requested - upto 2 TCH.. user initiated modification upto 2 TCH may be requested - upto 3 TCH.. user initiated modification upto 3 TCH may be requested - upto 4 TCH.. user initiated modification upto 4 TCH may be requested 		X
Asymmetry preference indication	<ul style="list-style-type: none"> - 00 no preference - 01 up link biased asymmetry preferred - 10 down link biased asymmetry preferred 		

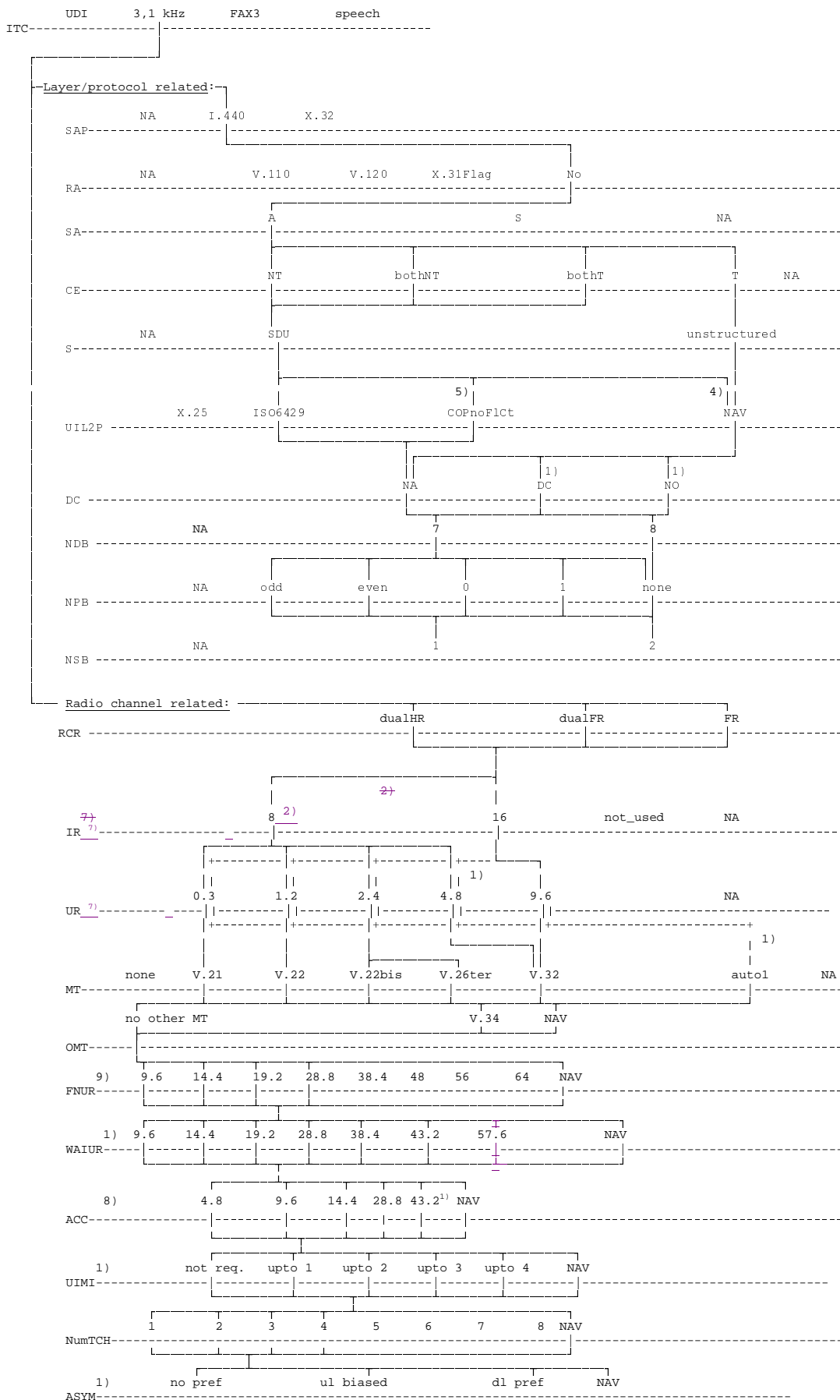
B.1.2 Bearer Service 20, Data Circuit Duplex Asynchronous

B.1.2.1 Unrestricted / restricted digital information transfer capability



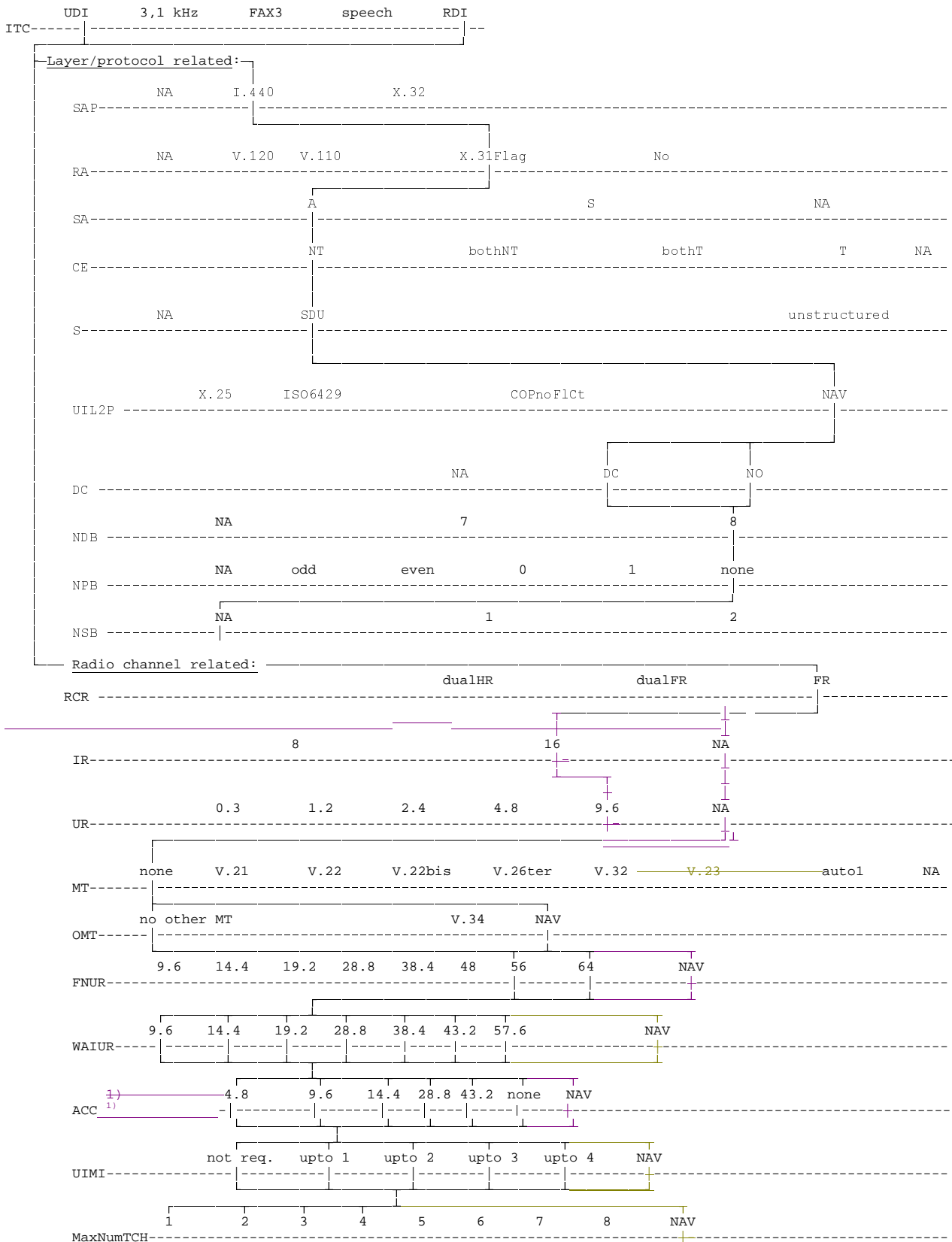
- 1) for CE:NT or "both";
- 2) for CE:T only or CE:NT and NIRR:6kb/s (not for the SETUP message);
- 3) Void;
- 4) for MT CALLS in the SETUP message or MO/MT CALLS with "out-band" flow control requested;
- 5) for MO/MT CALLS with no flow control requested;
- 6) Void;
- 7) the V.120 relevant BC parameters (octet 5b) shall be set according to the LLC (see clause B.2);
- 8) IR and UR are overridden ~~if by~~ FNUR, ACC and MaxNumTCH ~~are available~~;
- 9) ACC may have several values simultaneously (bit map coding).

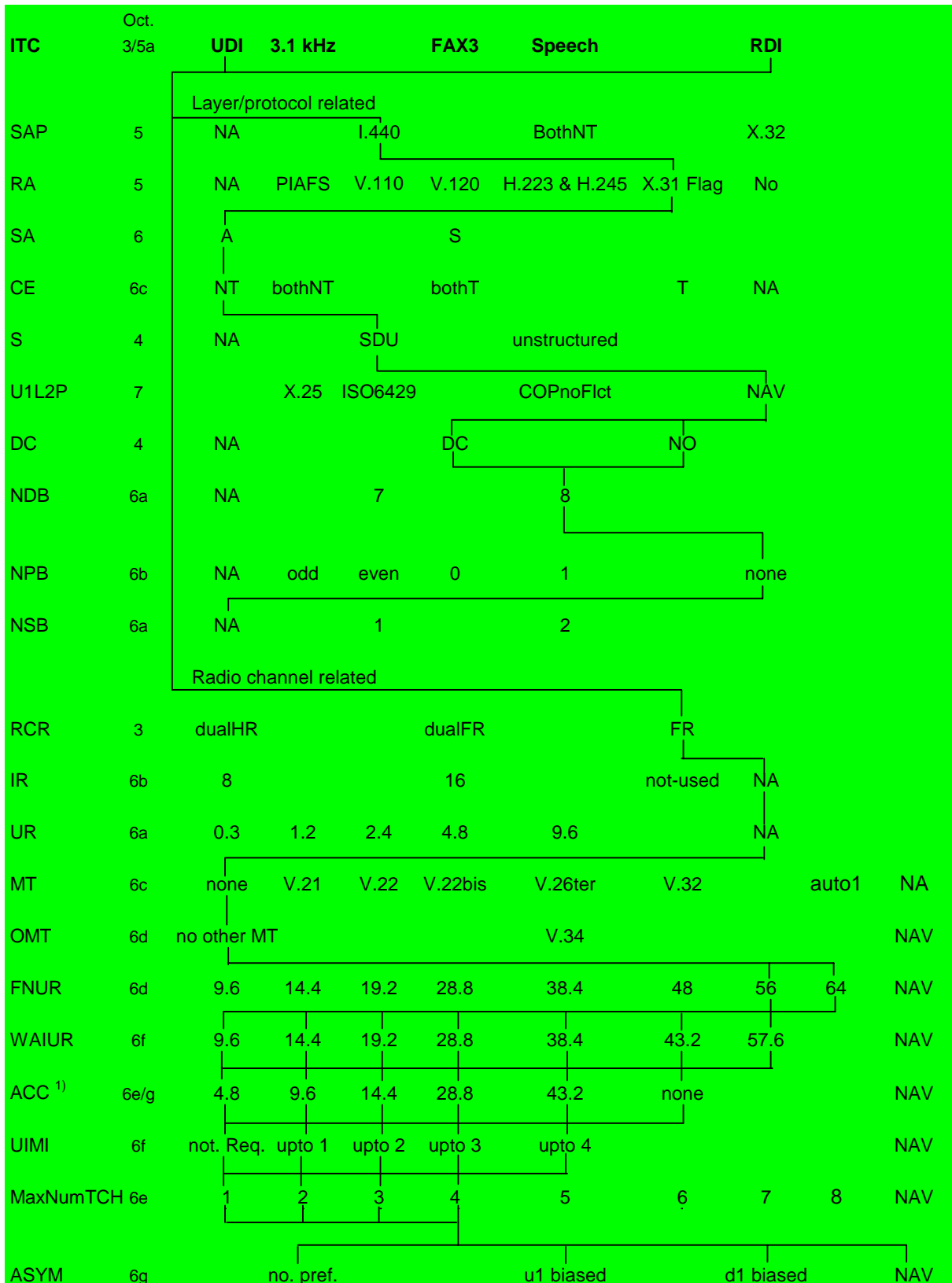
B.1.2.2 3,1 kHz audio ex-PLMN information transfer capability



- 1) for CE:NT or "both";
- 2) for CE:T only or CE:NT and NIRR:6kb/s (not for the SETUP message);
- 3) Void;
- 4) for MT CALLS in the SETUP message or MO/MT CALLS with "out-band" flow control requested (not for V.21 modem type);
- 5) for MO/MT CALLS with no flow control requested;
- 6) Void;
- 7) IR and UR are overridden ~~if by~~ FNUR, ACC and MaxNumTCH ~~are available~~.
- 8) ACC may have several values simultaneously (bit map coding).
- 9) in case of MT = auto1 the value of FNUR has no meaning.

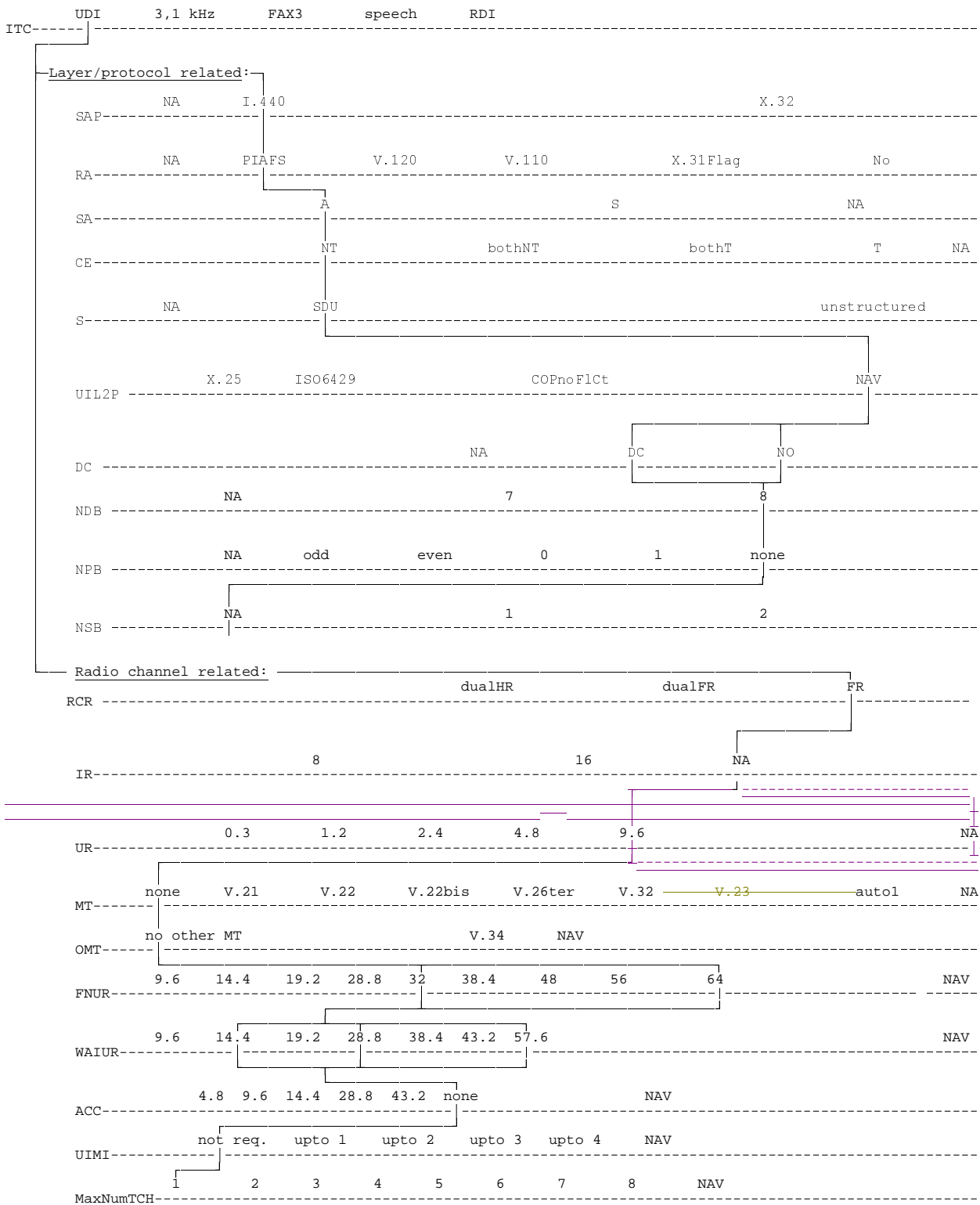
B.1.2.3 Frame Tunnelling Mode





1) ACC may have several values simultaneously (bit map coding).

B.1.2.4 PIAFS



ITC	Oct. 3/5a	UDI	3.1 kHz	FAX3	Speech	RDI					
Layer/protocol related											
SAP	5	NA	I.440	BothNT	X.32						
RA	5	NA	PIAFS	V.110	V.120	H.223 & H.245	X.31 Flag	No			
SA	6	A		S							
CE	6c	NT	bothNT	bothT		T		NA			
S	4	NA	SDU	unstructured							
U1L2P	7	X.25	ISO6429	COPnoFlct				NAV			
DC	4	NA		DC		NO					
NDB	6a	NA	7		8						
NPB	6b	NA	odd	even	0	1		none			
NSB	6a	NA	1		2						
Radio channel related											
RCR	3	dualHR		dualFR		FR					
IR	6b	8		16		not-used		NA			
UR	6a	0.3	1.2	2.4	4.8	9.6		NA			
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto1	NA		
OMT	6d	no other MT				V.34			NAV		
FNUR	6d	9.6	14.4	19.2	28.8	32	33.6	48	56	64	NAV
WAIUR	6f	9.6	14.4	19.2	28.8	38.4	43.2	57.6			NAV
ACC	6e/g	4.8	9.6	14.4	28.8	43.2	none				NAV
UIMI	6f	NA	not. Req.	upto 1	upto 2	upto 3	upto 4				NAV
MaxNumTCH	6e	1	2	3	4	5	6	7	8		NAV
ASYM	6g		no. pref.			u1 biased		d1 biased			NAV

B.1.3.1.3 Transparent FNUR=56 kbit/s, including 3G-H.324/M, (TCH/F9.6, TCH/F32.0, UTRAN)

ITC	Oct. 3/5a	UDI ³⁾	3.1 kHz	FAX3	Speech	RDI				
		Layer/protocol related								
SAP	5	NA	I.440	BothNT		X.32				
RA ³⁾	5	NA	PIAFS	V.110	V.120	H.223 & H.245	X.31 Flag	No		
SA	6	A		S						
CE	6c	NT	bothNT	bothT				NA		
S	4	NA	SDU		unstructured					
U1L2P	7	X.25	ISO6429		COPnoFlct			NAV		
DC	4	NA		DC		NO				
NDB	6a	NA	7		8					
NPB	6b	NA	odd	even	0	1		none		
NSB	6a	NA	1		2					
		Radio channel related								
RCR	3	dualHR		dualFR		FR				
IR ¹⁾	6b	8		16		not-used		NA		
UR ¹⁾	6a	0.3	1.2	2.4	4.8	9.6		NA		
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto1	NA	
OMT ⁵⁾	6d	no other MT				V.34				
FNUR ^{1,5)}	6d	9.6	14.4	19.2	28.8	38.4	48	56	64	
WAIUR	6f	9.6	14.4	19.2	28.8	43.2	57.6	NA	NAV	
ACC ^{1,2)}	6e/g	4.8	9.6	14.4	28.8	32.0	43.2	none	NAV ⁴⁾	
UIMI	6f	not. Req.	upto 1	upto 2	upto 3	upto 4		NA	NAV	
MaxNumTCH ¹⁾	6e	1	2	3	4	5	6	7	8	NAV ⁴⁾
ASYM	6g	no. pref.	u1 biased		d1 pref.			NAV		

1) IR and UR are overridden by FNUR, ACC and MaxNumTCH ~~are available~~. IR and UR are not applicable to UMTS.

- 2) ACC may have several values simultaneously (bit map coding). However, handover to/from UTRAN is not possible if the network assigns other traffic channels than TCH/F9.6 or TCH/F32.0.
- 3) In case ITC=UDI, RA shall be set to V.110 or H.223&H245.
- 4) In case ACC and MaxNumTCH are not available operation is restricted to UTRAN.
- 5) The parameters FNUR and OMT are mandatory for this service.

B.1.3.1.4 Transparent FNUR=56 kbit/s, including 3G-H.324M (TCH/F14.4)

Applies to GSM/GERAN only, no HO to/from UTRAN

ITC	Oct. 3/5a	UDI ³⁾	3.1 kHz	FAX3	Speech	RDI			
Layer/protocol related									
SAP	5	NA	I.440	BothNT	X.32				
RA ³⁾	5	NA	PIAFS	V.110	V.120	H.223 & H.245	X.31 Flag	No	
SA	6	A		S					
CE	6c	NT	bothNT	bothT		T		NA	
S	4	NA	SDU		unstructured				
U1L2P	7	X.25	ISO6429		COPnoFlct	NAV			
DC	4	NA		DC		NO			
NDB	6a	NA	7		8				
NPB	6b	NA	odd	even	0	1		none	
NSB	6a	NA	1		2				
Radio channel related									
RCR	3	dualHR		dualFR		FR			
IR ¹⁾	6b	8		16		not-used		NA	
UR ¹⁾	6a	0.3	1.2	2.4	4.8	9.6		NA	
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto1	NA
OMT ⁴⁾	6d	no other MT				V.34			
FNUR ^{1, 4)}	6d	9.6	14.4	19.2	28.8	38.4	48	56	64
WAIUR	6f	9.6	14.4	19.2	28.8	43.2	57.6	NA	NAV
ACC ^{1, 2, 4)}	6e/g	4.8	9.6	14.4	28.8	32.0			NAV
UIMI	6f	not. Req.	upto 1	upto 2	upto 3	upto 4		NA	NAV
MaxNumTCH ⁴⁾	6e	1	2	3	4 ¹⁾	5	6	7	8
ASYM	6g	no. pref.		u1 biased		d1 pref.			NAV

1) IR and UR are overridden by FNUR, ACC and MaxNumTCH if available.

2) ACC may have several values simultaneously (bit map coding).

3) In case ITC=UDI, RA shall be set to V.110 or H.223 & H245.

4) The parameters FNUR, OMT, ACC and MaxNumTCH are mandatory for this service.

B.1.3.1.5 Transparent FNUR = 64kbit/s including 3G-H.324/M (TCH/F9.6, TCH/F14.4, TCH/F32.0, UTRAN)

ITC	Oct. 3/5a	UDI	3.1 kHz	FAX3	Speech	RDI				
		Layer/protocol related								
SAP	5	NA	I.440	BothNT		X.32				
RA	5	NA	PIAFS	V.110	V.120	H.223 & H.245	X.31 Flag	No		
SA	6	A		S						
CE	6c	NT	bothNT	bothT		T		NA		
S	4	NA	SDU		unstructured					
U1L2P	7	X.25	ISO6429		COPnoFlct			NAV		
DC	4	NA		DC		NO				
NDB	6a	NA	7		8					
NPB	6b	NA	odd	even	0	1		none		
NSB	6a	NA	1		2					
		Radio channel related								
RCR	3	dualHR		dualFR		FR				
IR ¹⁾	6b	8		16		not-used		NA		
UR ¹⁾	6a	0.3	1.2	2.4	4.8	9.6		NA		
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto1	NA	
OMT ⁴⁾	6d	no other MT				V.34				
FNUR ^{1,4)}	6d	9.6	14.4	19.2	28.8	38.4	48	56	64	
WAIUR	6f	9.6	14.4	19.2	28.8	43.2	57.6	NA	NAV	
ACC ^{1,2)}	6e/g	4.8	9.6	14.4	28.8	32.0	43.2	none	NAV ³⁾	
UIMI	6f	not. Req.	upto 1	upto 2	upto 3	upto 4		NA	NAV	
MaxNumTCH ¹⁾	6e	1	2	3	4	5	6	7	8	NAV ³⁾
ASYM	6g	no. pref.	u1 biased		d1 pref.			NAV		

- 1) IR and UR are overridden by FNUR, ACC and MaxNumTCH ~~if available.~~ IR and UR are not applicable to UMTS.
- 2) ACC may have several values simultaneously (bit map coding).
- 3) If ACC and MaxNumTCH are not available operation is restricted to UTRAN.
- 4) The parameters FNUR and OMT are mandatory for this service.

B.1.3.1.6 3G-H.324/M, FNUR=32.0 kbit/s (TCH/F32.0, UTRAN)

ITC	Oct. 3/5a	UDI	3.1 kHz	FAX3	Speech	RDI				
		Layer/protocol related								
SAP	5	NA		I.440	BothNT	X.32				
RA	5	NA	PIAFS	V.110	V.120	H.223 & H.245	X.31 Flag	No		
SA	6	A			S					
CE	6c	NT	bothNT		bothT		T	NA		
S	4	NA		SDU	unstructured					
U1L2P	7	X.25		ISO6429	COPnoFlct	NAV				
DC	4	NA			DC	NO				
NDB	6a	NA		7		8				
NPB	6b	NA	odd	even	0	1	none			
NSB	6a	NA		1		2				
		Radio channel related								
RCR	3	dualHR			dualFR	FR				
IR ³⁾	6b	8			16	not-used	NA			
UR ³⁾	6a	0.3	1.2	2.4	4.8	9.6	NA			
MT	6c	none	V.21	V.22	V.22bis	V.26ter	V.32	auto1	NA	
OMT	6d	no other MT				V.34				
FNUR	6d	9.6	14.4	19.2	28.8	32.0	38.4	48	56	64
WAIUR	6f	9.6	14.4	19.2	28.8	43.2	57.6	NA	NAV	
ACC ¹⁾	6e/g	4.8	9.6	14.4	28.8	32.0	43.2	none	NAV ²⁾	
UIMI	6f	not. Req.	upto 1	upto 2	upto 3	upto 4		NA	NAV ²⁾	
MaxNumTCH	6e	1	2	3	4	5	6	7	8	NAV ²⁾
ASYM	6g	no. pref.		u1 biased		d1 pref.			NAV ²⁾	

1) ACC may have several values simultaneously (bit map coding).

2) ~~2)~~ If ACC, UIMI, MaxNumTCH and ASYM are not available operation is restricted to UTRAN.

3) ~~3)~~ IR and UR are overridden by FNUR, ACC and MaxNumTCH. IR and UR are not applicable to UMTS.