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Technical Report

**Universal Mobile Telecommunications System (UMTS);
Typical examples of Radio Access Bearers (RABs) and Radio
Bearers (RBs) supported by Universal Terrestrial Radio
Access (UTRA)
(3GPP TR 25.993 version 7.7.0 Release 7)**



Reference

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Keywords

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Foreword

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The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document provides a list of examples of RABs and RAB combinations which are supported by UTRA with examples of radio interface mapping for these RABs onto Radio Bearers and Signalling Radio Bearers.

This list of examples describes typical parameters, and should only be understood as possible configurations i.e. any other configuration supported by the Core Specifications and consistent with a given UE capability shall also be supported by this UE.

The present document addresses the FDD mode as well as the TDD mode.

This report is a release independent report. This means that the latest release applicable to 3GPP is the reference that this TR is defined upon, and contains information on all previous releases. Actual release where a given example applies is indicated in the relevant section.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 34.108: "Common Test Environments for User Equipment (UE) Conformance Testing"
- [2] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".
- [3] 3GPP TS 25.212: "Multiplexing and channel coding (FDD)".
- [4] 3GPP TS 25.322: "RLC Protocol Specification".
- [5] 3GPP TS 25.323: "PDCP Protocol Specification".
- [6] 3GPP TS 25.331: "Radio Resource Control (RRC); protocol specification".
- [7] IETF RFC 2507: "IP Header Compression".
- [8] 3GPP TS 25.306: "UE Radio Access Capabilities"
- [9] IETF RFC 3095: "RObust Header Compression (ROHC): Framework and four profiles: RTP, UDP, ESP, and uncompressed".
- [10] 3GPP TS 26.236: "Packet switched conversational multimedia applications; Transport protocols"
- [11] 3GPP TS 26.234: "Transparent end-to-end packet switched streaming service (PSS); Protocols and codecs"
- [12] IETF RFC1889: "RTP: A Transport Protocol for Real-Time Applications"
- [13] IETF RFC3267: "Real-Time Transport Protocol (RTP) Payload Format and File Storage Format for the Adaptive Multi-Rate (AMR) and Adaptive Multi-Rate Wideband (AMR-WB) Audio Codecs"
- [14] 3GPP TR 26.937: "Transparent end-to-end packet switched streaming service (PSS); RTP usage model"

- [15] 3GPP TS 26.235: "Packet switched conversational multimedia applications; Default codecs"
- [16] IETF RFC2793: "RTP Payload for Text Conversation"

3 Other provisions

The provisions of clauses 3 and onwards, Annexes A and B of 3GPP TR 25.993 version 8 (Release 8) apply.

Annex C: Change history

Change history							
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
09/2002	RP-17	RP-020663	-		Creation.	-	-
12/2002	RP-18	RP-020890	-		Merge of RP-020877 with RP-020814. Clause numbering changed. Approved at TSG RAN#18.	2.0.0	6.0.0
03/2003	RP-19	RP-030109	001		Streaming and interactive/background RAB combinations	6.0.0	6.1.0
	RP-19	RP-030109	002		QoS attributes for RABs in 25.993	6.0.0	6.1.0
	RP-19	RP-030109	003		TDD RABs in 25.993	6.0.0	6.1.0
06/2003	RP-20	RP-030288	004		Corrections to the UE capabilities and editorial changes	6.1.0	6.2.0
	RP-20	RP-030288	005		New configuration for CBS: CTCH, PCCH, 32kbps RAB and SRBs on 1 S-CCPCH	6.1.0	6.2.0
	RP-20	RP-030288	006		New SCCPCH Configurations	6.1.0	6.2.0
	RP-20	RP-030288	008		PS streaming and CS speech RAB combinations	6.1.0	6.2.0
	RP-20	RP-030288	009		RB configuration for the support of wideband AMR speech telephony services	6.1.0	6.2.0
	RP-20	RP-030288	010		Corrections on TDD RABs	6.1.0	6.2.0
09/2003	RP-21	RP-030497	012		IMS RAB scenarios	6.2.0	6.3.0
	RP-21	RP-030489	013		Addition of Streaming RABs	6.2.0	6.3.0
12/2003	RP-22	RP-030609	014		BTFD with Flexible TrCH position	6.3.0	6.4.0
	RP-22	RP-030609	015		Addition of Conversational – Interactive/Background RAB combination	6.3.0	6.4.0
03/2004	RP-23	RP-040100	019		Alignment with 34.108 for TDD	6.4.0	6.5.0
	RP-23	RP-040100	024		S-CCPCH combination for HS-DSCH channel type switching	6.4.0	6.5.0
	RP-23	RP-040109	025		DCH combination for HS-DSCH channel type switching	6.4.0	6.5.0
06/2004	RP-24	RP-040205	026		Corrections on required capabilities for 32kbps UE class and addition of the 12kbps class	6.5.0	6.6.0
	RP-24	RP-040205	027		Addition of RAB Parameters For RABs Removed From TS34.108 But Retained In TS25.993	6.5.0	6.6.0
09/2004	RP-25	RP-040325	028		Physical layer multiplexing configuration in case of AMR and two PS RABs with zero bit rates	6.6.0	6.7.0
	RP-25	RP-040325	029		Physical layer multiplexing configuration in case of two PS RABs	6.6.0	6.7.0
	RP-25	RP-040325	030		Correction of RAB configuration in 1.28Mcps TDD	6.6.0	6.7.0
	RP-25	RP-040325	032		Conversational PS RAB for HS-DSCH	6.6.0	6.7.0
12/2004	RP-26	RP-040483	031	3	Addition of HSDPA RABs	6.7.0	6.8.0
	RP-26	RP-040475	033		Addition RAB combinations for UL>DL PS rates	6.7.0	6.8.0
	RP-26	RP-040475	034		Radio bearer combination for PS streaming in section 7.1.74	6.7.0	6.8.0
	RP-26	RP-040475	035	1	Correct TFCS used in 128DL RAB	6.7.0	6.8.0
03/2005	RP-27	RP-050064	036		Addition of asymmetric RAB-combinations with voice	6.8.0	6.9.0
	RP-27	RP-050071	037		AMR-WB reference RAB configurations	6.8.0	6.9.0
06/2005	RP-28	RP-050325	0038		Introduction of fixed DTX positions for I/B RAB combinations	6.9.0	6.10.0
	RP-28	RP-050325	0039		Inclusion of HSDPA RABs already defined in 34.108	6.9.0	6.10.0
	RP-28	RP-050321	0040		CCCH message enhancements	6.9.0	6.10.0
	RP-28	RP-050325	0041		Introduction of Streaming RABs over HSDPA	6.9.0	6.10.0
09/2005	RP-29	RP-050455	0042		Redefinition of Radio Access Bearer (RAB) combinations	6.10.0	6.11.0
	RP-29	RP-050455	0043		Proposed new notation for HSDPA Radio Bearers (RB)	6.10.0	6.11.0
	RP-29	RP-050455	0044		Combinations of radio bearers on DPCH with WB-AMR and I/B PS	6.10.0	6.11.0
	RP-29	RP-050455	0045		Inclusion of additional example RAB combinations	6.10.0	6.11.0
	RP-29	RP-050455	0046		Addition of RAB-combinations with AMR 5.9 voice and AMR 12.2 with two PDP contexts	6.10.0	6.11.0
	RP-29	RP-050487	0047		Maximum number of bits per TTI for extended CCCH	6.10.0	6.11.0
	RP-29	RP-050586	0050	1	Reference RB configuration for AMR utilising 5.9, and 4.75 kbps with SF256 in DL	6.10.0	6.11.0
12/2005	RP-30	RP-050799	0048	3	Addition of VoIP RAB combinations	6.11.0	6.12.0
	RP-30	RP-050799	0049	3	Addition of VoIP RAB combination for multiplexed RTP and RTCP flows	6.11.0	6.12.0
	RP-30	RP-050799	0051	1	Addition of multi-rate AMR-NB configuration with SRB#5	6.11.0	6.12.0
	RP-30	RP-050799	0052	1	Introduction of high bit rate SRB	6.11.0	6.12.0
	RP-30	RP-050799	0053	3	Addition of multi-rate AMR configuration over HSDPA	6.11.0	6.12.0
	RP-30	RP-050799	0054	1	Miscellaneous corrections	6.11.0	6.12.0
	RP-30	RP-050799	0055		Introduction of conversational mono rate AMR 5.9 kbps RAB with SF 128.	6.11.0	6.12.0
	RP-30	RP-050799	0057		PL for Conversational / speech (12.65, 8.85, 6.6) kbps + Interactive 0 kbps	6.11.0	6.12.0
	RP-30	RP-050799	0060		WB-AMR configurations	6.11.0	6.12.0
	RP-30	RP-050799	0061	1	Addition of VoIP RAB combinations	6.11.0	6.12.0

	RP-30	RP-050799	0062		Addition of VoIP RAB combination for multiplexed RTP and RTCP flows	6.11.0	6.12.0
03/2006	RP-31	RP-060088	0056	2	Reference RAB configurations for MBMS	6.12.0	6.13.0
	RP-31	RP-060082	0063		Corrections to TR 25.993	6.12.0	6.13.0
	RP-31	RP-060083	0064		VT bearer configurations	6.12.0	6.13.0
	RP-31	RP-060083	0065		Introduction of additional WB-AMR RAB combinations	6.12.0	6.13.0
	RP-31	RP-060087	0066		Introduction of EUL RB configurations	6.12.0	6.13.0
	RP-31	RP-060082	0067	1	Uplink Streaming 128 kbps combinations	6.12.0	6.13.0
	RP-31	RP-060087	0068	1	VoIP reference configuration for E-DCH	6.12.0	6.13.0
	RP-31	RP-060089	0069		Alternative reference RB configurations for MBMS	6.12.0	6.13.0
06/2006	RP-32	RP-060368	0070		Correction of transport block sizes in MBMS reference bearer configurations	6.13.0	6.14.0
	RP-32	RP-060367	0071		Addition of the combinations on DPCH and HS-PDSCH for LCR TDD	6.13.0	6.14.0
	RP-32	RP-060367	0073		Correction of internal references	6.13.0	6.14.0
	RP-32	RP-060367	0074		Reference configuration of AMR (5.9 kbps, 4.75 kbps) and HSDPA and E-DCH	6.13.0	6.14.0
	RP-32	RP-060367	0075		Puncturing limit correction in 7.1.112	6.13.0	6.14.0
	RP-32	RP-060372	0076		New configurations with 'flexible TFCS'	6.13.0	6.14.0
	RP-32	RP-060371	0077	1	Introduction of high data rate SRB	6.13.0	6.14.0
09/2006	RP-33	RP-060572	0078		Correction to chapter numbering in E-DPDCH and HS-DPSCH RB combinations	6.14.0	6.15.0
	RP-33	RP-060572	0084		Correction on combinations with Streaming / unknown / UL:0 DL:64 kbps / CS RAB	6.14.0	6.15.0
	RP-33	-	-		Upgrade to the Release 7 - No technical change	6.15.0	7.0.0
12/2006	RP-34	RP-060721	0079	3	Addition of VoIP RAB combination for multiplexed RTP and RTCP flows when ROHC is in steady state	7.0.0	7.1.0
	RP-34	RP-060721	0085		Additional I/B RAB combinations	7.0.0	7.1.0
	RP-34	RP-060721	0086		7.6 kbps signalling RB for MCCH	7.0.0	7.1.0
	RP-34	RP-060721	0087		Reference SRB configuration for MCCH	7.0.0	7.1.0
03/2007	RP-35	RP-070152	0088	1	Correction on RAB combinations for VoIP for TR 25.993	7.1.0	7.2.0
	RP-35	RP-070152	0089		Addition of IMS MM Telephony configurations over HSPA	7.1.0	7.2.0
	RP-35	RP-070152	0090		Correction to TF size in MBMS reference configuration	7.1.0	7.2.0
	RP-35	RP-070152	0091		UE capability requirement for 7.6 kbps signalling RB for MCCH	7.1.0	7.2.0
	RP-35	RP-070152	0092		Additional HSPA RAB Combinations	7.1.0	7.2.0
	RP-35	RP-070152	0093		Additional HSDPA RAB Combinations	7.1.0	7.2.0
06/2007	RP-36	RP-070396	0094	1	Addition of RAB combinaison for SRB mapped on DL "HSDPA + DCH"	7.2.0	7.3.0
	RP-36	RP-070396	0095		Additional DCH RAB Combinations	7.2.0	7.3.0
	RP-36	RP-070396	0096		HSPA RAB Combinations	7.2.0	7.3.0
	RP-36	RP-070396	0097		Additional HSPA RAB Combinations	7.2.0	7.3.0
09/2007	RP-37	RP-070623	0098		HSUPA and HSDPA with SRBs on 13.6 kbps DCH	7.3.0	7.4.0
	RP-37	RP-070625	0099		References to radio bearer for MCCH and MTCH testing	7.3.0	7.4.0
	RP-37	RP-070624	0100		Add references to additional combinations on PRACH adopted in 34.108	7.3.0	7.4.0
	RP-37	RP-070624	0101		Additional DCH RAB Combination	7.3.0	7.4.0
	RP-37	RP-070624	0102		Very low bit rate WB-AMR configuration	7.3.0	7.4.0
	RP-37	RP-070624	0103		Additional DCH RAB combination	7.3.0	7.4.0
12/2007	RP-38	RP-070895	0104		MBMS ptp RAB on HS	7.4.0	7.5.0
	RP-38	RP-070892	0106		Removal of incorrect configuration	7.4.0	7.5.0
03/2008	RP-39	RP-080190	0107	1	RB combinations for flexible PDU sizes and MAC-ehs	7.5.0	7.6.0
	RP-39	RP-080180	0108	-	RAB combinations MBMS PTP on DPCH	7.5.0	7.6.0
05/2008	RP-40	RP-080405	0110	1	Replacing contents of TR 25.993 REL-7 by a pointer at creation of REL-8 version	7.6.0	7.7.0

History

Document history		
V7.3.0	June 2007	Publication
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