TSG-RAN Working Group 1 meeting No. 18   *TSGR1-00-1497*
January 15-18, Boston, U.S.A.

Agenda Item: **-**

Source: **Secretary**

Title: **Draft minutes of WG1 #17 meeting**

Document for: **Approval**

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Draft Minutes for 3GPP TSG-RAN WG1 17th Meeting

Meeting start: November 21st, 2000, in Stockholm, Sweden

Day 1, started at 09.11

1. Opening of the meeting   (09:11-09:15)
The chairman, Mr. Antti Toskala (Nokia), opened the meeting.
On behalf of the hosting company (Ericsson), Mr. Dirk Gerstenberger welcomed the meeting.

2. Approval of agenda (R1-00-1325)   (09:15-09:25)
Chairman made a brief introduction of the agenda on the screen.
CWTS requested to postpone TDD 1.28 Mcps functionality topic to Day3 due to the status of the documents preparation and it was accepted.
Agenda was approved with no other comments.

3. Identification of the incoming liaison statements and actions in the answering

No.	Title	Source	To/Cc	Tdoc No.	Discussed in	Notes
1	Response to LS (R1-001146) on TFCI in the case of invalid set of transport blocks and during DPCH synchronisation	R2	TO	R1-00-1329 (R2-002133)	Plenary	Answer LS will be drafted. (*1) Day 1 09:26-09:35
2	Response to LS (R1-001293) on Power control preamble length	R2	TO	R1-00-1413 (R2-002464)	Plenary	Answer LS will be drafted. (*2) Day 1 09:36-09:42
3	Response to LS (R1-001163) on Issues related to UE timing	R2	TO	R1-00-1330 (R2-002134)	Plenary	Noted (*3) Day 1 09:42-09:45
4	Response to LS (R3-002343) on FDD RACH/PRACH modelling	R2	CC	R1-00-1331 (R2-002135)	Plenary	Noted (*4) Day 1 09:45-09:54
5	LS on the study/work items with RAN WG3 having the primary responsibility and progress of other items	R3	TO	R1-00-1332 (R3-002876)	Plenary	Noted (*5) Day 1 09:55-10:03
6	RL timing adjustment by UTRAN	R3	TO	R1-00-1334 (R3-002726)	Plenary ✍ Offline	Answer LS will be drafted. (*6) Day 1 10:04-10:15
7	Response to LS on the status of DSCH power control improvement in soft handover	R3	TO	R1-00-1335 (R3-002858)	Plenary	Noted (*7) Day 1 10:15-10:17
8	LS from WG3 to WG1, answer to LS on Radio Link Initialisation	R3	TO	R1-00-1336 (R3-002860)	Plenary	Noted (*8) Day 1 10:17-10:34
9	Response to LS (R1-001310) on Blind transport format detection limitations	R2	TO	R1-00-1410 (R2-002461)	Plenary	Noted (*9) Day 1 10:59-11:01
10	Response to LS (R1-001308) on Status of DSCH power control improvement in soft handover	R2	TO	R1-00-1411 (R2-002462)	Plenary	Noted (*10) Day 1 11:01-11:03
11	LS on Default configurations	R2	TO	R1-00-1412 (R2-002463)	Plenary	To be revisited later (*11) Day 1 11:03-11:45
12	LS on Transfer of CSICH Information to 25.211	R2	TO	R1-00-1414 (R2-002465)	Plenary	CR will be approved. (*12) Day 1 11:46-12:03
13	LS on IPDLs for TDD	R2	TO	R1-00-1415 (R2-002466)	Plenary	Answer LS will be drafted (*13) Day 1 12:04-12:05
14	LS on UE capabilities	R2	TO	R1-00-1416 (R2-002467)	Plenary	CR will be approved later. (*14) Day 1 12:07-12:12
15	LS on UE capabilities for Low Chip Rate	R2	TO	R1-00-1417 (R2-002468)	Plenary	To be revisited later (*15) Day 1 12:12-12:17
16	Reply to LS on RSSI measurement	R4	TO	R1-00-1418 (R4-000969)	Plenary	Approved CRs needs to be revised. (*16) Day 1 12:17-12:28
17	LS on 1.28 Mcps TDD and 3.84 Mcps TDD co-existence studies in RAN4 (answer to R1-00-1321)	R4	TO	R1-00-1419 (R4-000998)	Plenary	Noted (*17) Day 1 12:28-12:38

(*1) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.
This was the answer liaison statement to the LS (**R1-00-1146**) which we had sent out from RAN WG1 #15 meeting. RAN WG2 sent this response on the final day in their #16 meeting and so it could not reach us in time during our previous meeting.
They informed us following ;
To avoid having several solutions RAN WG2 proposes to always use the special TFCI value in the initialisation phase. For FDD this special TFCI will only be used during this phase and not afterwards. However, for TDD since the Special Burst is used during DTX, this special TFCI can also be used anytime during the physical channel connection.
In conjunction with this LS, **R1-00-1413** (R2-002464) was introduced because in the last paragraph of it, it says WG2 also would like to remind WG1 that the issue which TFCI shall be used during DPCH synchronisation is still open. The statements made in Tdoc R1-00-1329 (R2-002133) are applicable also to the TFCI used during PCP transmission on the uplink. WG2 would like to confirm that use of the all zero TFCI code during PCP transmission would be a reasonable choice from a higher layer perspective.
Since RAN WG2 was in line with RAN WG1 and there was no comment raised chairman concluded that we should create short answer liaison that states RAN WG2 is encouraged to produce necessary CRs to their specifications. Mr. Dirk Gerstenberger was asked to draft the answer LS. The draft (**R1-00-1421**) was reviewed on Day 4 and approved in **R1-00-1490**. (See No.117)
(*2) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.
This was the answer liaison statement to the LS (**R1-00-1293**) which we had sent out from RAN WG1#16 in

which we had asked RAN WG2 whether they could agree to our proposal on the use of PCP and the value range for the PCP length parameter to delay the DPDCH starting. (to avoid the loss of data in case that the time needed for Node B searcher to find the uplink signal is increased.)

RANWG2 answered that they can accept the value range for PCP length parameter however they were not able to draw conclusion on the proposed use of the PCP to delay the DPDCH starting due to the concern raised especially on the impact on speech delay. In addition, RAN WG2 made 9 questions to us for clarification that had been made during their discussion.

Since it was considered difficult to make discussion to each of the questions on line in the meeting, chairman suggested to discuss them over the proposed answers. Chairman asked Mr. Fredrik Ovesjo to draft an answer LS and proposed to discuss over his draft. The draft answer was made in **R1-00-1422** and reviewed on Day4. It was approved with no comments in **R1-00-1491**. (See No.118)

(*3) This was the answer liaison statement to the LS (**R1-00-1163**) which we had sent out from RAN WG#15 meeting. Mr. Serge Willenegger (QUALCOMM) stated that this LS had been already covered. Hence this LS was not reviewed. He stated regarding the point 5 "Timing adjustment" that the relevant CR in RAN WG4 had been approved in their last meeting. The CR is contained in R4-000896.

Chairman concluded that this was noted.

(*4) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.

RAN WG3 had sent out questionary type LS (R3-002343) in their #15 meeting to RAN WG2. RAN WG1 had also received it as CC (**R1-00-1176**) which was reviewed in RAN WG1 #16 meeting in Pusan.

Now RAN WG2 produced their answer to RAN WG3 and they sent it to RAN WG1 as CC.

Although it was stated in this LS that RAN WG2 attached their CRs to the LS, RAN WG2 seems to forget to attach them. Mr. Dirk Gerstenberger stated that he would provide the forgotten CRs during this meeting if possible because those CRs were having some useful pictures which clearly explains what the change was exactly. These CRs were provided with file name "R1-00-1331_attachments.zip" on the Day2 morning CD and now available on the ftp server as attachments of R1-00-1331.

Chairman concluded that this was noted. RAN WG3 would treat this in their meeting that was being held in parallel with RAN WG1 meeting.

(*5) Mr. Jussi Kahtava (Nokia) presented this LS.

In this LS, RAN WG3 were informing other RAN WGs about the progress status of Rel-4/Rel-5 study/work items with RAN WG3 having the primary responsibility. They were also informing the status of other Rel-4/Rel-5 study/work items which were lead by other WGs and having impacts on their specifications as well.

As for the topics for which RAN WG1 has leading responsibility, the status is as follows.

- Node B synchronisation for TDD (Rel 4)
   TR (TR 25.838 v0.1.0) was notified in RAN #9.
- Terminal power saving features (Rel 4)
   WG3 has discussed Gating transmission as one solution of this WI and it is included in TR (TR 25.938 v0.1.0). First TR was notified in RAN #9.
- DSCH power control improvement in soft handover (Rel 4)
   TR25.841 (WG1 TR) has been introduced in WG3#16. WG3 has agreed with the need to create its own TR to investigate more about this issue. TR is not available yet.
- USTS (Rel 4)
   TR was notified in RAN #9 and WG3 hasn't had further discussion yet. TR is available (TR 25.839 v0.1.0) is available.

Chairman commented that since RAN WG3 had created its own TRs, there should be put the reference to RAN WG3 TR in our own TR. He added that in case there are some texts existing regarding RAN WG3 issues in our TR, those should be replaced by this reference.

(*6) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.

This was the answer liaison statement to the LS (**R1-00-1163**) which we had sent out from RAN WG1#15.

RAN WG3 made a question on the point 4. "*PC combining*". However the point was not PC combining issue itself but rather regarding the assumption that UTRAN supports some kind of Radio Link timing adjustment procedure to adjust the timing of a specific RL. Up to that time, RAN WG3 had not identified the need to support such a procedure and therefore they made a question asking whether it is needed for release 99.

Chairman commented that we need to create some kind of answer to this LS and suggested offline discussion and calculation. Chairman asked people whether they thought this kind of timing adjustment procedure is needed for release 99 or not. There was no comment raised for this question.

Draft answer will be made based on the offline discussion in **R1-00-1423**. Eventually this draft was not provided in this meeting.

(*7) Mr. Jussi Kahtava (Nokia) presented this liaison statement.

This was the answer liaison statement to the LS (**R1-00-1308**) which we had sent out from RAN WG1#16.

In the LS, RAN WG3 was informing us that during RAN WG3 #16 meeting, there had not been a big discussion of this issue but the idea in TR25.841v1.1.0 (**R1-00-1307**) had been introduced. They informed that RAN WG3 had agreed with the need to create its own TR to investigate more about this issue. TR number is 25.849.

Similar information was also provided in **R1-00-1332** (R3-002876). (See No.5)

(*8) Mr. Peter Chambers (Siemens) presented this liaison statement.

This was the answer liaison statement to the LS (**R1-00-1320**) which we had sent out from RAN WG1#16 in which we had asked RAN WG3 whether they were happy if they were to put the reference to RAN WG1 specification instead of having detailed layer 1 description in RAN WG3 specification. RAN WG3 was answering

with the explanation of the reason why they had had layer1 description in their specification that they did not have any objection to replace it with the reference to RAN WG1 specifications. They were saying that they were ready to update TS 25.433 by referring to corresponding procedure description in RAN WG1 specifications whenever possible.

With respect to this issue we had postponed one CR from Siemens (CR25.214-135, **R1-00-1215**) in our previous meeting. Chairman suggested that we should review this CR at that moment and if we could agree to it, then an answer liaison should be drafted. There was no comment raised. CR 25.214-135 (R1-00-1215) was reviewed in succession.(See No.18) But it was not approved since it received some comments to be reflected. Chairman concluded that we would come back to the revision of this CR later but anyway we should send an answer liaison to RAN WG3 saying that we would produce relevant CR so that RAN WG3 could refer in their specifications. The LS would be produced in **R1-00-1426**. This was reviewed on Day4 and approved in **R1-00-1487**. (See No.116) The revision of the CR is in **R1-00-1463** and approved on Day4.(See No.53)

 (*9) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.
This was t he answer liaison statement to the LS (**R1-00-1310**) which we had sent out from RAN WG1#16. Answer from RAN WG2 was in line with our request. This was noted.

(*10) Mr. Jussi Kahtava (Nokia) presented this LS.
This was the answer liaison statement to the LS (**R1-00-1308**) which we had sent out from RAN WG1#16. In this LS, RAN WG2 was informing that they were not having the intention to create their own TR on the Work Item of *DSCH power control improvement in soft handover* because they did not see no other impact on their specifications than the addition of the parameter already pointed out by RAN WG1. They asked us to keep the text addressing WG2 issue as it is in the TR.

(*11) Mr. Dirk Gerstenberger (Ericsson) presented this liaison statement.
RAN WG2 was asking RAN WG1 for guidance on the default values regarding the transport channel parameters (gain factor information , rata matching attribute and the DCH BLER quality target) and physical channel parameters (DPCCH power offset, PC-preamble).
Chairman commented that this LS is lacking the details about the backgrounds from RAN WG1 point of view.
   - Why are these things needed ?
   - In which case they are needed ? ,etc
and added that the main thing could be considered as CS domain services of handover for GSM ⏴⏴UTRA, what parameters are to be applied in UTRA side after the handover.
Mr. Jussi Kahtava (Nokia) proposed to review Noka's paper (Discussion document contained in R1-00-1390) which was considered to be relevant to this LS. Chairman agreed to this proposal.

R1-00-1390 *Hardcoded Physical layer parameters for GSM -UTRA handover for GSM Rel. 99*
             CS-domain services / Sourece : Nokia   (11:16-11:45)
Ms. Evelyne Le Strat(Nortel) commented that the approach in RAN WG2 and that of in this Nokia's discussion paper were contradicting each other. She stated that RAN WG2 was suggesting to retain the radio parameters as much possible as used in TS 34.108 whereas this paper was introducing new bearers, new parameters, new tests in order to keep the bit rate. This would require a lot of more work to be done.
Chairman commented that the reason of the mismatch between these 2 documents was that we had not been given the enough background behind the request from RAN WG2. He added that this discussion paper did not have any intention to change the mapping. It only did checking the consistency whether there are some cases to be defined by ISG or corresponding T group. (e.g. values for rate matching, what is the ratio of how much symbols are to be allocated onto the control channel and the data channel.)
There long discussion took place regarding what we should do with the cases which are not covered by TS 34.108. Chairman suggested offline checking of the parameter tables which was attached to the RAN WG2 LS and also invited people to check the cases and values in TS 34.108. Ericsson provided TS 34.108v3.1.0 (latest version) in Day2 morning CD-ROM. (This is now available in **R1-00-1459**).
Conclusion: We will revisit this later after offline checking of the values.
 /** This was not revisited in at least RAN WG1 #17. **/

(*12) Mr. Kourosh Parsa (GBT) presented this LS.
In RAN WG2 #17 meeting, they approved a CR (CR 25.331-583r1) which proposes to remove the description of information of CPCH Status Information Channel (CSICH) from TS 25.331 because they thought it was more appropriate to have that description in TS 25.211 rather than in TS 25.331 taking into account that the CSICH information is not needed by higher layers and is never sent to higher layers. RAN WG2 requested that RAN WG1should include this CSICH information into the appropriate Layer 1 specification, that is in TS25.211. They also had provided a draft CR for TS 25.211 on this issue (**R1-00-1375** CR 25.211-089). This CR was reviewed in succession. (See No.19) Eventually this CR was approved as CR 25.11-089 rev1 in **R1-00-1430** on Day3. (See No.41)
Chairman commented that since RAN WG2 had already approved the CR there would not be needed the answer LS from RAN WG1. This LS was noted.

(*13) It was proposed in RAN WG2 #17 meeting to introduce an IPDL like enhancement to the OTDOA method for TDD and RAN WG2 was asking us to study its feasibility and evaluate the performance improvement achieved by IPDL. They attached the proposed document to this LS.
Since it was confirmed we have related contribution in RAN WG1 in this meeting (**R1-00-1355**), chairman suggested to review it later and to derive an answer based on the discussion of that document. **R1-00-1431** was allocated for the draft answer. R1-00-1355 was reviewed on Day3 (See No.93) but eventually the answer LS was not produced. Instead the rapporteur was asked to cover this in Work Item status report.

(*14) Belaiche Vincent (Mitsubishi) presented this LS.

> During the last RAN WG2 meeting #17, Mitsubishi Electric presented a CR on 25.926 (CR 25.926-015r1,attached to this LS) containing some editorial modifications in the definition of physical parameters. RAN WG2 asked for RAN WG1 opinion on this CR. They requested RAN WG1 to submit the update to the next RAN plenary meeting directly from RAN WG1 in case some modification is needed.
> Chairman suggested an offline checking and we would revisit this in detail when we go through the CRs later.
> Eventually Mitsubishi and Ericsson provided discussion paper (**R1-00-1469** and **R1-00-1364**) respectively for this issue. These were reviewed on Day3. (See No.47, 48).
> Finally the original RAN WG2 CR was significantly modified in **R1-00-1478**. The revision would be submitted to the RAN #10 directly from RAN WG1. (See No. 57)

(*15) CWTS presented this liaison statement.

> RAN WG 2 had discussed and agreed to update their technical report TR 25.843 : *1.28 Mcps TDD UE Radio Access Capabilities* based on the attached document "*Proposal for reference UE radio access capability combinations* " (R2-002394). RAN WG2 requested RAN WG1 to review this document and to provide updates if necessary to the next RAN plenary meeting.
> Chairman proposed we would revisit this later and send updates if necessary to RAN #10.
> The answer liaison was provided by CWTS in **R1-00-1472** and reviewed on Day3 night. (See No.103)

(*16) Mr. Jussi Kahtava (Nokia) presented this LS.

> This was the reply to the **R1-00-1290** which we had sent out from RAN WG1#16 meeting as the answer to **R1-00-1205** (R4-000743). RAN WG4 had made discussion over our LS and informed us their answers to our questions and clarified their position. This LS implied that we should revise our CRs (both for FDD and TDD) that were approved in our previous meeting to be in line with their discussion results.
> Corresponding revisions
>> for FDD : CR 25.215-075r2 (**R1-00-1432**) and CR 25.215-077r2 (**R1-00-1433**)
>> for TDD : CR 25.225-018r2 (**R1-00-1453**) and CR 25.225-019r1 (**R1-00-1452**)
>
> were made according to this LS and approved. (See No. 37, 38 for TS 25.215; No. 50, 51 for TS 25.225)

(*17) CWTS presented this liaison statement.

> This was the answer liaison statement (**R1-00-1321**) which we had sent out from RAN WG1 #16 meeting.
> RAN WG4 had conducted several simulations and deterministic calculations regarding the co-existence problem between 3.84Mcps TDD and 1.28Mcps TDD options in the unsynchronised case in adjacent bands.
> Based on those results RAN WG4 concluded that for the operation in adjacent bands any further alignment of the physical layer parameters / frame structure between 1.28 Mcps TDD and 3.84 Mcps TDD is not necessary, ***if operators co-ordinated to ensure both frame and switching point synchronisation***. As for the unsynchronised case in adjacent bands they also stated that more time is needed to study the assumptions however this LS was informing that RAN WG4 had finalised its simulation and study requested by RAN#9 on co-existence of the two TDD options in the unsynchronised case in adjacent bands. RAN WG4 would continue the work to complete their technical report on 1.28Mcps TDD.
> Mr. Volker Höhn (Mannesmann Mobilfunk) pointed out concerning the conclusion that the condition of
>> " *if operators co- ordinated to ensure both frame and switching point synchronisation.*"
>
> contradict the assumption of "uncoordinated and unsynchronised".
> Chairman concluded this to be noted and stated that in case some questions were raised regarding this LS including the attached documents, those questions would be treated in 1.28Mcps TDD session.

/** Lunch break 12:39-13:46 **/

4. Change Requests for WG1 Release –99 specifications

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
18	135	-	25.214	R1-00-1215	TPC command generation on downlink during RLS initialisation	F	Siemens	To be revised	(*1) Day1 10:34
19	089	-	25.211	R1-00-1375	Proposed CR to 25.211 for transfer of CSICH Information from Layer 3 Specification	F	GBT	To be revised	(*2) Day1 11:34
20	137	-	25.214	R1-00-1333	Clarifications on the description of the radio link establishment procedure (when no radio link exists)	F	Vodafone Ericsson	Approved	(*3) Day1 14:25
21	138	-	25.214	R1-00-1333	Corrections on power control preambles	F	Vodafone Ericsson	To be revised	(*4) Day1 14:42
22	088	-	25.211	R1-00-1333	Clarifications on power control preambles	F	Vodafone Ericsson	**Approved Supersedes**	(*5) Day1 14:52
23	139	-	25.214	R1-00-1363	Clarification of RACH procedure	F	Ericsson	To be revised	(*6) Day1 15:09
24	140	-	25.214	R1-00-1400	Uplink power control in compressed mode	F	Alcatel	**Approved Supersedes**	(*7) Day1 15:12
25	078	1	25.215	R1-00-1318	Correction to measurement "Rx-Tx time difference"	F	QUALCOMM	Approved	No (*8) Comments Day1 15:15
26	036	-	25.221	R1-00-1342	Clarification on PICH power setting	F	Siemens	Approved	No (*9) Comments Day1 15:23
27	040	-	25.224	R1-00-1342	Clarification on PICH power setting	F	Siemens	Approved	No (*9) Comments Day1 15:23
28	042	-	25.224	R1-00-1372	Correction to TDD timing advance description	F	Siemens	Approved	No Comments Day1 15:27
29	021	-	25.225	R1-00-1348	Removal of incorrect note relating to RSCP measurements	F	Siemens	Approved	No (*10) Comments Day1 15:31
30	034	-	25.221	R1-00-1003	Correction on TFCI & TPC Transmission	F	Siemens	Approved	No (*11) Comments Day1 16:12
31	050	-	25.222	R1-00-1003	Correction on TFCI & TPC Transmission	F	Siemens	Approved	No (*11) Comments Day1 16:12
32	-	-	-	R1-00-1343	Typical Radio Parameter Sets Version 1.3	-	GSMA ISG	Noted	No (*12) Comments Day1 16:16
33	003	-	25.944	R1-00-1344	Corrections for FDD part of TR 25.944	F	NTT DoCoMo	To be revised	(*13) Day1 16:36
34	099	-	25.212	R1-00-1427	Editorial modification in RM section	F	Mitsubishi	Approved	(*14) Day 2 11:35
35	141	1	25.214	R1-00-1420	Revision of the abbreviation list	F	NEC	Approved	No Comments Day 2 11:38
36	080	-	25.215	R1-00-1403	Clarifications to compressed mode usage	F	Motorola	To be revised	(*15) Day 2 11:47
37	075	2	25.215	R1-00-1432	Definition of UTRAN RSSI	F	Nokia Ericsson	**Approved updates**	(*16) Day 2 11:56
38	077	2	25.215	R1-00-1433	Clarification of reference point for UE/UTRAN measurements	F	Nokia Ericsson	**Approved updates**	(*17) Day 2 12:00
39	139	1	25.214	R1-00-1438	Clarification of RACH procedure	F	Ericsson	Approved	(*18) Day 2 12:03
40	043	-	25.224	R1-00-1402	Limit on maximum value of alpha used for open loop power contro	F	Siemens	Approved	(*19) Day 3 15:31
41	089	1	25.211	R1-00-1430	Proposed CR to 25.211 for transfer of CSICH Information from Layer 3 Specification	F	GBT Samsung	Approved	(*20) Day 3 16:10
42	090	-	25.211	R1-00-1405	PCPCH/DL-DPCCH Timing Relationship	F	GBT LGE	Approved	No Comments Day 3 16:13
43	101	-	25.212	R1-00-1446	Correction to code block segmentation	F	Mitsubishi	Approved	No Comments Day 3 16:15

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
44	138	1	25.214	R1-00-1437	Corrections on power control preambles	F	Vodafone Ericsson	Approved	No (*21) Comments Day 3 16:18
45	080	1	25.215	R1-00-1455	Clarifications to compressed mode usage	F	Motorola	Approved	No (*22) Comments Day 3 16:21
46	004	-	25.944	R1-00-0997	TDD related changes for TR25.944, update	F	Siemens	Approved	No (*23) Comments Day 3 16:29
47	-	-	-	R1-00-1364	Discussion paper on UE capabilities	-	Ericsson	Discussed	(*24) Day 3 16:53
48	-	-	-	R1-00-1469	Discussion on maximum total number of transport blocks	-	Mitsubishi	Discussed	(*24) Day 3 16:53
49	-	-	-	R1-00-1456	Limitation on the downlink rate matching repetition	-	Panasonic Mitsubishi	Discussed	(*25) Day 3 17:23
50	019	1	25.225	R1-00-1452	Corrections and Clarifications to 25.225	F	Siemens	Approved updates	(*26) Day 3 17:25
51	018	2	25.225	R1-00-1453	Corrections and Clarifications to 25.225	F	Siemens	Approved updates	(*27) Day 3 17:27
52	003	2	25.944	R1-00-1471	Corrections for FDD part of TR 25.944	F	NTT DoCoMo	Approved	No (*28) Comments Day 4 10:08
53	135	1	25.214	R1-00-1463	TPC command generation on downlink during RLS initialisation	F	Siemens	Approved	(*29) Day 4 11:21
54	100	1	25.212	R1-00-1477	Editorial corrections in TS 25.212	F	NTT DoCoMo	Approved	No (*30) Comments Day 4 11:34
55	053	1	25.222	R1-00-1477	Editorial corrections in TS 25.222	F	NTT DoCoMo	Approved	No (*30) Comments Day 4 11:34
56	035	1	25.224	R1-00-1470	Radio Link establishment and sync status reporting	F	Siemens InterDigital	Approved	No Comments Day 4 11:52
57	XXX	-	25.926	R1-00-1478	Correction on parameter "Maximum total number of transport blocks…"	F	Mitsubishi	Approved	No (*31) Comments Day 4 12:01

(*1) This CR was reviewed in conjunction with the LS (**R1-00-1336**) (See No. 8). This CR had been postponed in RAN WG1#16 meeting waiting for the answer from RAN WG3. Since we got the positive answer from RAN WG3, this CR was reviewed.

Mr. Dirk Gerstenberger (Ericsson) commented that though there was no problem with this CR in principle we should clarify the original intention of RAN WG3.

- "the downlink" ✍ " a downlink *radio link from Node Bs*"
- " if higher layers indicate this is the first radio link sent to the UE"
    ✍ " If higher layers indicate by "First RLS indicator" that the radio link is part of *the first radio link set* sent to the UE"
- The reference to this section should be put in the radio link synchronization section.

Chairman concluded this to be revised and commented that we could draft an answer liaison to RAN WG3 saying that we would produce relevant CR so that RAN WG3 could refer to in their specifications.

The revision of CR can be found in **R1-00-1463**. This was reviewed on Day4 and approved. (See No. 53)

(*2) This CR was reviewed in relation with the LS (**R1-00-1414**) (See No. 8)

RAN WG2 provided this CR. This CR proposed to add the description of CSICH information to TS 25.211 which had originally been in TS 25.331. It was confirmed by the proponent that there is no functional change compared to what was in TS 25.331.

Chairman commented that though there is no problem in principle some editorial elaboration should be needed to improve the readability of the text. (e.g. What is "PA mode" or "PAMASF mode"? These were introduced without any explanation. These should be expressed without abbreviation, like "channel assignment is active or not.")

Ms. Sarah Boumendil (Nortel) pointed out that the abbreviation of PCA (PCPCH Channel Availability) already exists in RAN WG4 specification to indicate Power Control Algorithm.

This was to be revised. The revision is in **R1-00-1430**. This was reviewed on Day3 and approved. (See No. 41)

(*3) This CR proposed to modify the description of the radio link establishment procedure (when no radio link exists) in order to make it clear and consistent.

There was some discussion on the sentence in section 4.3.2.2 (a)

*UTRAN shall sta rts the transmission of the downlink DPCCH **and may start the transmission of DPDCH if any data is to be transmitted**.*

regarding the relation between PCP length and data transmission start timing in terms of TFCI value (zero rate TFCI and normal TFCI). It was pointed out that the definition of the radio link establishment criteria may well be clarified. However since it did not have direct relation with this CR chairman suggested that it should be done by

the separate CR if necessary.

(*4) In the current specification the PCP period stops after the first DL TPC reverse and this is not consistent with the downlink toggling scheme applied on the DPCCH TPC commands at the radio link initialisation stage. This CR proposed to remove this inconsistency. In addition, the actual range of PCP length was replaced by the reference to TS 25.331.

It was pointed out that this CR was not necessary based on the latest approved specification but for some points based on the CR approved in the previous meeting (CR25.214-131, **R1-00-1197**).

Chairman commented that this must be checked thoroughly.

It was also commented that whether the "uplink" power control preamble or "downlink" power control preamble should be clarified in the proposed texts.

It was questioned whether "power control preamble" is a "period" in section 5.1.3.3. If it is a period then "power control preamble period" in section 5.1.2.4 can be considered a repetition of synonyms.

It was also pointed out that in addition to the proposed changes, it would be better to replace the sentence in the 3rd paragraph in section 5.1.2.4 which starts with "After first slot of the power control preamble." with "During power the control preamble…" so that it would not give the impression that it is once after the first slot.

This was to be revised to reflect the comments received. The revision is in **R1-00-1437**. This was reviewed on Day3 and approved. (See No.44)

(*5) This CR supersedes CR 25.211-080 (**R1-00-1197**) which was approved in RAN WG1 #16.

(*6) Mr. Dirk Gerstenberger (Ericsson) presented this CR. This CR proposed to clarify some ambiguity about the RACH access service class (ASC) setting with respect to sub-channel groups in TS 25.214.

Mr. Dirk Gerstenberger commented that there was already one error in the new step 6.5 in section 6.1."repeat from step 6" should be modified to "repeat from step 5" because the old step 6 now became step 5. He also stated that this CR would supersede one part (section 6.1) of already approved CR (CR 25.214-133, **R1-00-1213**, Panasonic) however other parts of that CR would remain untouched.

There was one comment on the feasibility (or definition or implementation) of the random function which has to choose access slot with equal probabilities within very short time. Chairman answered it would be very difficult to do this with exactly equal probabilities.

This was to be revised to correct "step 6" to "step 5". The revision is in **R1-00-1438**. This was reviewed and approved on Day 2.(See No. 39)

(*7) This was the revision of the CR (CR 25.214-132, R1-00-1207, Alcatel and Siemens) which had been approved in the RAN WG1 #16 but had a different (new) CR number. One remaining error was corrected by this CR. (?$_{PILOT}$ was added in the equation of SIR_{cm_target} in section 5.1.2.3.

There was one comment that ?SIR_{target} should be taken into account in the equation of SIR_{cm_target}. Chairman answered that it was included in "? SIR1_coding + ? SIR2_coding".

Since this CR was approved, CR 25.214-132 was superseded.

(*8) Mr. Serge Willenegger (QUALCOMM) presented this CR. This is the revision of CR 25.215-078 (**R1-00-1301**) which was reviewed in RAN WG1#16 meeting. In this revision the comment received in RAN WG1#16 was reflected ("during the measurement period" had been removed from the definition.).

Cover sheet would be revised with respect to "other specs" by the secretary with the exact reference numbers.

(*9) These 2 CRs proposed to change the description of PICH power reference to be in line with RAN WG3 specification. In RAN WG1 specifications PICH power is fixed to the P-CCPCH reference whereas in RAN WG3 specification, PICH power is set by NBAP signalling. This also enables FDD and TDD settings to be aligned.

(*10) This CR proposed the removal of the a NOTE which says that RSCP measurements can be made on either the data part or the midamble of a burst, from both of UE and UTRAN measurement abilities sections(5.1 & 5.2) since midamble cannot always be used.

(*11) Mr. Marcus Purat (Siemens) presented these CRs.

These 2 CRs proposed to fix the spreading factor for TFCI and TPC fields to 16 in the UL physical channels in order to maintain the reliability of the TFCI/TPC even in case the minimum SF is allocated for the data transmission. In the current spec the reliability of the TFCI/TPC fields could be decreased in case the repetition is applied for the data.

Mr. Marcus Purat stated in answering the question raised by Mr. Mirko Aksentijevic (Nokia) that there were 2 condition CRs in other WGs for these 2 CRs.

    RAN WG4 : CR that changes the reference channels

    RAN WG2 : CR that adds the signalling for the added option in these CRs.

/*** Information for linked CRs provided by Siemens ***/

/*** CR 25.331-618, CR 25.105-047, CR 25.433-038r2, CR 25.423-260r2 ***/

(*12) Mr. Takehiro Nakamura (NTT DoCoMo) presented this document.

This is the latest documents v1.3 (released in August 2000) and this was already submitted to the previous RAN (#9). Mr. Takehiro Nakamura stated that this version is almost stable except some editorial errors.

Editorial errors were described in the cover sheet and overview of this version was described in the Appendix.

He added for information that the main body of this documents had been copied to TS 34.108.

(*13) Mr. Takehiro Nakamura (NTT DoCoMo) presented this CR.

Several changes in several sections were introduced. These corrections were in line with the latest version(v1.3) of Typical Radio Parameter Sets from GSMA ISG.

It was pointed out that there was one editorial error in figure 21. "TrBk concatenation" was missing new added block set sizes of 16 and 20.

This was to be revised. The revision was made in **R1-00-1440** but it was further revised into **R1-00-1471**. This

was reviewed on Day4 and approved with no comments. (See No.52)

(*14) Mr. Belaiche Vincent (Mitsubishi) presented this CR.

It was commented that the category of this CR should be changed to 'F' (Correction) from 'D' (Editorial Modification). Mr. Mr. Belaiche Vincent agreed with comment. Correction would be done by the secretary.

(*15) Mr. Richard Burbidge (Motorola) presented this CR.

This CR proposed to clarify the description in section 6.1.1.1 since there had been a number of undefined terms that relate different UE implementation used.

It was clarified that in case a UE indicates that compressed mode is not required, it does not need to support compressed mode but then it still has to support an alternative means of making the measurements.

There were some editorial comments made.

- 'dual receiver' should also removed from the title of section 6.1.1.1
- 'e.g.' in the first paragraph should be replaced by 'i.e.'
- there is a typo.

This was to be revised. The revision is in **R1-00-1455**. This was reviewed on Day 3 and approved with no comments. (See No. 45)

(*16) Mr. Jussi Kahtava (Nokia) presented this CR.

This was the update of previously approved CR (CR25.215-075r1, **R1-00-1251**, Ericsson, approved in R1#16).

This was updated according to the LS from RAN WG4 (**R1-00-1418**, R4-000969) (See No. 16).

Mr. Alexander Lax (3G.com) commented following. (Answer was given by Mr. Dirk Gerstenberger (Ericsson).)

- In the first sentence, the word 'total' should be inserted same as the title.
  ✍ Since this is the definition and not name, it is ok as it is. It does not have to be same as the name.
- The proper abbreviation like 'RTWBP' should be created ✍ abbreviation is not used in other WGs either.

Mr. Belaiche Vincent (Mitsubishi) commented that he agreed to the definition however if we describe it in this way, we should add that the measurement is normalized by the gain.

Chairman opposed to this comment. This kind of things should be taken care in RAN WG4. He added that we can check with RAN WG4 colleagues about this handling.

(*17) Mr. Jussi Kahtava (Nokia) presented this CR.

This was the update of previously approved CR (CR25.215-077r1, **R1-00-1256**, Ericsson, approved in R1#16).

This was updated according to the LS from RAN WG4 (**R1-00-1418**, R4-000969) (See No. 16).

Mr. Alexander Lax (3G.com) made a comment on section 5.1. Chairman answered that section 5.1 had already been approved in CR 25.215-077r1 and this CR 25.215-077r2 did only change section 5.2.

Mr. Alexander Lax was not satisfied with this answer.

(*18) This was the revision of **R1-00-1363** which was reviewed on Day1 (See No. 23)

One editorial error was corrected in this revision.

(*19) This CR proposed to limit the weighting of the short term against the long term path loss for open loop power control by specifying a maximum value of alpha to be signalled by the network. This parameter would be set dependent on the expected channel reciprocity.

This CR was reviewed in the Ad Hoc 30 session and approved in the plenary on Day3 right after the reviewal of Ad Hoc 30 report (**R1-00-1458**).

A corresponding CR was conditionally approved by RAN WG2, on the condition that RAN WG1 would approve this change as well. The LS to inform RAN WG2 and RAN WG3 that we have approved this CR was reviewed in succession. (R1-00-1466, See No. 112)

(*20) This was the revision of **R1-00-1375** which was reviewed on Day1. (See No.19)

This was approved with no comment however the document was corrupted in terms of MS-Word. Clean version would be provided to the secretary by the proponent.

(*21) This was the revision of **R1-00-1333** which was reviewed on Day1. (See No.21)

Only CR 25.214-138r1 part was contained instead of 3 CRs in R1-00-1333. (2 others were already approved.)

(*22) This was the revision of **R1-00-1403** which was reviewed on Day2. (See No.36)

(*23) This was the TDD version of **R1-00-1344**. (See No.32, 33)

(*24) These 2 paper discussed the issue of the maximum total number of transport blocks which was originally raised by the LS from RAN WG2 (**R1-00-1416**, R2-002467, R2-002317, See No.14).

R1-00-1364 was refuting the changes proposed by R2-002317 by commenting several reasons. On the other hand R1-00-1416 was insisting the need for clarification of "maximum total number of transport blocks etc…" issue based on the refutation in R1-00-1364. Eventually Ericsson agreed to the proposal of having a simple change request to TR 25.926 which was proposed in the end of R1-00-1416 as an alternative in which no parameter name is changed, and the problem of exact definition "maximum total number of transport blocks etc…" is solved. This simplified CR would be produced by Mitsubishi on Day4. (It was produced in **R1-00-1478** and reviewed on Day4 and approved. See No.57)

(*25) This discussion paper presented the impact of unlimited downlink rate matching repetition on UE capability memory dimensioning. It was shown that no limitation requires quite big memory size which will probably not be used. Based on this, this paper proposed to impose a limit to the maximum rate of the repetition in rate matching in the downlink in order to reduce the memory size required in UE. 3 ways of limitation method were presented. Furthermore, it was proposed to produce an actual CR to TR 25.926 depending on the outcome of the discussion. Some discussion took place on how we should treat this problem. The current problem and intention of this paper were identified.

- Core spec, TS.25212 is proper place rather than TR 25.926 for this issue.
- Backward compatibility problem if this limitation is to be applied from release 4.

- This is the functional change.
- We should be careful in modifying the rate matching because rate matching is introduced in order to ensure the balancing between transport channels. With this proposed limitation,is the proper balancing still ensured?
- We need to have time to consider.

Chairman concluded that we should have time to think about whether there are potential impacts or how we should handle this issue (TS or TR). We would come back to this topic in our next meeting.

(*26) This was the update of the CR(CR 25.225-019, **R1-00-1253**) which had been approved in RAN WG1 #16. This was updated according to the LS from RAN WG4 (**R1-00-1418**, R4-000969) (See No. 16)

(*27) This was the update of the CR(CR 25.225-018r1, **R1-00-1007**) which had been approved in RAN WG1 #16. This was updated according to the LS from RAN WG4 (**R1-00-1418**, R4-000969) (See No. 16)

(*28) This was the revision of **R1-00-1344** which was reviewed on Day1 (See No.33). At first R1-00-1344 was revised in R1-00-1440 however after distribution, another editorial error was found. Therefore it was further revised in R1-00-1471.

(*29) This was the revision of **R1-00-1215** which was discussed on Day1.(See No. 18)
There was one comment that in section 5.1.2.2.1.2, 2nd bullet point contradicts 4th bullet point.
It was answered that this description was originally in RAN WG3 specification.
Chairman commented that if we found problems then we need to communicate with RAN WG3. He suggested that now we should approve this and get rid of this description from RAN WG3 specification.
LS (**R1-00-1426**) which informs that this CR was agreed in RAN WG1 was reviewed in succession. (See No.116)

(*30) This was the revision of R1-00-1439. R1-00-1439 had not been reviewed. (After R1-00-1439 was distributed, another necessary correction was found and so it was revised.)

(*31) This CR was the outcome of the discussion in Day3 afternoon. (See No. 47, 48)
It was decided that the secretary should get new CR number for TR 25.926 before RAN #10.
/*** Eventually this new CR number was not obtained. (RAN WG2 had frozen CR numbering for TR 25.926 because they would upgrade TR 25.926 to TS 25.306. Therefore this CR was submitted to RAN as CR 25.926-015r2.) CR 25.926-015r2 can be found in **R1-00-1488**. ***/

5. Release 4/5 issues

Ad Hoc configuration
AH21 : TDD 1.28 Mchips functionality
AH22 : Terminal power saving features
AH23 : Compressed mode
AH24 : High speed downlink packet access
AH25 : Hybrid ARQ
AH26 : Tx-diversity
AH27 : Radio link performance enhancements
AH28 : Improved Common DL Channel for Cell FACH State
AH29 : Positioning
AH30 : TDD NodeB synchronisation
AH31 : Uplink Synchronous Transmission

5.1 Reviewal of the Current status in RAN WG2 on the release 4/5 issues

Before going into Release 4/5 issues, chairman introduced the current RAN WG2 status which was provided by RAN WG2 on the e-mail reflector.
- RAN WG2 was still very busy with release 99.
- Improved Common DL Channel for Cell-FACH State (No conclusion taken)
- High Speed Downlink Packet Access
  The agreement in RAN WG2 is that RAN WG1 can already work on the following
   ? Adaptive Modulation and Coding - Feasibility of multi-level modulation and coding schemes.
   ? H-ARQ - link performance of different H-ARQ mechanism - Chase, Incremental Redundancy, etc.
   ? Frame size - one of the outputs of study item 2 above (H-ARQ link performance) should be an optimum frame size
   ? Reverse control channel - frame formats and need for multiple physical DCH to support Hybrid ARQ
   ? Implications on mobile station requirements
   ? Agreed simulation assumptions for link and system simulations
  The exact ARQ protocol operation should hopefully be available after January. Until this is done RAN WG1 may
   miss some important information.
- RAN WG2 will have an ad-hoc meeting in January on above 2 items. (RAN WG2 has prime responsibilities for the feasibility study.)
- On the other Work Items for release 4:
    ? Low chip rate TDD layer 2 and layer 3 protocol aspects, stable.
    ? Low Chip Rate TDD UE Radio Access Capability, stable.
    ? UE positioning in UTRA TDD, progressing in UP ad-hoc
    ? UE positioning in UTRA FDD, progressing in UP ad-hoc
    ? Radio access bearer support enhancement, progressing, no impact on R1.
    ? Improved usage of downlink resource in FDD for CCTrCHs of dedicated type. No input.

5.2 Terminal power saving features (Ad Hoc 22)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
58	**22**	R1-00-1337	Outer loop power control during DPCCH gating	Nokia	✍ Offline Discussion	(*1) Day1 16:44-17:04
59	**22**	R1-00-1338	Further clarifications on RX gating	Nokia	Noted ✍ LS	(*2) Day1 17:04-17:16
60	**22**	R1-00-1339	Revision of TR25.840 Terminal Power Saving Features including RX gating changes	Nokia	Approved	No (*3) Comments Day1 17:16-17:31
61	**22**	R1-00-1460	Further clarifications on outer loop power control during DPCCH gating	Nokia	Noted	(*4) Day3 17:32-17:50

(*1) Mr. Markku Tarkiainen (Nokia) presented this document.
   It was proposed that outer loop power control based on CRC attached to zero transport block will be used also
   during DPCCH gating because DPCCH BER will not offer good enough performance for outer loop.
   There was some discussion made regarding the CRC method because this proposal implies that CRC is to be
   transmitted even during normal DTX (no gating) mode. In release 99 specification, it is possible to use CRC to
   implement outer loop power control but it is not set mandatory.
   Finally chairman suggested offline discussion.
   There was one question whether in some case this proposal has some impact on the potential gains in interference

reduction and battery saving with gating ?
It was answered this was for further study.
(*2) Mr. Markku Tarkiainen (Nokia) presented this document.
This paper provided further clarification on so-called Rx gating which was originally introduced in RAN WG1#15 meeting in **R1-00-1079**. It was shown in this follow up paper that the maximum of parameter K should be limited at 4 because the UE battery life would not be improved very much beyond that value. This maximum value 4 implies that there is no additional delay introduced to RRC signalling and that receiver will have to be on often enough for long enough period. Therefore it was stated that it can be defined that all the normal handover measurements are to performed during gating, including initial search. This paper proposed to liaise this issue with RAN WG4 in order to ask them to define the handover measurement requirements during Rx gating.
No comments were made.
The actual text proposal for this is included in **R1-00-1339**. (See No.60)
The liaison statement on this issue to RAN WG4 was drafted in **R1-00-1462**. This was reviewed on Day4 and approved in **R1-00-1492**. (See No. 119)
(*3) Mr. Markku Tarkiainen (Nokia) presented this document.
This was the revision of TR 25.840 *Terminal Power Saving Features* including RX gating changes discussed in **R1-00-1338**. It was presented how to included RX gating in the technical report.
This revision of the TR was approved with no comment and thus version was raised to v1.2.0 in **R1-00-1444**.
Chairman suggested that if there was some progress on the outer loop control issue after the offline discussion then it could be reflected onto v1.2.0 and finally the v2.0.0 would be submitted to the next RAN.
/** Day1 closed at 17:50 **/
(*4) Mr. Markku Tarkiainen (Nokia) presented this document.
This was the revision of **R1-00-1337** which was reviewed on Day1. (See No. 58) Section 3 was modified to clarify how to handle the outer loop power control with CRC attached with zero TrCH blcok.
It was questioned whether the impact on the potential gains in interference reduction and battery saving was calculated or not. ✍ Not yet done. ✍ this should be clarified. ✍ In general how the gating effectively work should be definitely clarified.
Chairman concluded until the impact on the potential gain or efficiency is clarified we should not include this proposal into the technical report.

5.3 Radio link performance enhancements (Ad Hoc 27)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
62	**27**	R1-00-1391	Updates in TR 25.841 based on the feedback from TSG RAN WG2 and WG3	Nokia	Approved	No (*1) Comment Day1 17:38-17:45
63	**27**	R1-00-1492	Power Control of TFCI field for DSCH in Soft Handover	LGE	Noted	(*2) Day3 17:51-18:09
64	**27**	R1-00-1371	CPICH Interference Cancellation as A Means for Increasing DL Capacity	Intel	Noted	(*3) Day4 08:41-09:00
65	**27**	R1-00-1269	Dynamic Split Mode for TFCI	Samsung	Noted	(*4) Day4 09:01-09:28

(*1) Mr. Jussi Kahtava (Nokia) presented this document.
Minor editorial adjustments were done to the previous version. Furthermore RAN WG3 related parts were removed because they informed us that they would created their own TR in RAN WG3 (TR 25.849). (See No.5,7) RAN WG2 part was retained since they indicated that they would not create their own TR on this topic. (See No.10).
Since this revision was approved with no comment the version number would be raised to v2.0.0 and be submitted to next RAN. The v2.0.0 can be found in **R1-00-1445**.
(*2) In this paper it was proposed to apply the power control for DSCH to TFCI. Now in case of hard split mode, the received power of TFCI1 and that of TFCI2 may be different because TFCI2 is not transmitted from every cell in the active set when UE is in soft handover region. This paper proposed to have 2 power offsets (PO3 and primary_TFCI_pow/ non-pimary_TFCI_pow) in order to improve the reliability of the TFCI2. It was suggested to include this proposal into the technical report.
Chairman commented that this scheme does not have much impact on physical layer specifications but have the impact on Iub specification. He concluded that we should leave technical report as it is and suggested to liaise this with RAN WG3 if necessary. He added that he would mention this in his report to next RAN.
It was commented by Ms. Evelyne Le Strat (Nortel) that this is nothing to do with the power control (enhancement) but the improvement of decoding of TFCI split.
Chairman stated that we would come back to this in our next meeting.
(*3) This paper presented new procedure for UE for cancelling the multiple access interference (MAI) associated with the pilot channels of the active and neighbouring base stations. It was shown that the downlink capacity is increased by approximately 10%. It was stated that overall computational complexity added to UE is very small. Some discussion took place. Major opinion was that it is not preferable to add new receiver algorithm to our

specification. At the same time there was a comment that we should consider the potential of this proposal to increase downlink capacity. If we say about the complexity, then Tx-diversity is much more complex.

Can this be included in our specification as an informative annex ? ✍ informative annex should be removed. Chairman concluded that this was noted for consideration. We also should hear RAN WG4 opinion. This would be discussed in our next meeting.

(*4) This paper proposed variable split compared to current 5:5 hard split of TFCI to increase the number of transport formats for DSCH.

It was commented that this is a solution but what is the problem ? Is there any request from RAN WG2 and RAN WG3 ? There should be request before we derive solution.

Chairman stated that he would report this to RAN to see RAN WG2 and RAN WG3 situation.

It was also commented that we should check this from complexity point of view.

It was informed by Mr. Dirk Gerstenberger (Ericsson) that RAN WG3 had discussed this issue in their last meeting. There were 2 candidates for the solution but they had not yet reached conclusion on the solution.

Chairman concluded that we should wait for RAN WG3 or RAN WG2 request.

Day 2, started at 09.06

5.4 Uplink Synchronous Transmission (Ad Hoc 31)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
66	**31**	R1-00-1380	Study Report for Uplink Synchronous Transmission Scheme	SK Telecom	To be revised	(*1) Day2 09:21-10:41
67	**31**	R1-00-1160	OVSF code allocation rule for USTS (Uplink Synchronous Transmission Scheme)	Samsung	Noted	(*2) Day2 11:08-11:31

(*1) The draft version had been available on the e-mail reflector. R1-00-1380 was slightly modified from the reflector version.

RAN WG3 TR on this topic (TR 25.839) was put in the reference section in accordance with the information given by RAN WG3. (See No. 5)

Quite a lot of comments were raised.

Section 4

- As a starting section of the technical issues, this section 4 should have generic figure (picture) that shows the principle of USTS otherwise there would be confusion when this is presented in the RAN.

Section 4.1

- This section should have more elaborated picture showing uplink and downlink timing relation.

What would be the difference range between the reception and the transmission in the UE ? Currently without USTS it is (1024 ± 148) chips. But if the uplink timing is to be adjusted by the commands or the initial value got from the downlink then this range would be affected. How does this impact ?

✍ There is some related description in section 6.1.4. In certain cases, this value can be maintained. (SK Telecom)

Chairman commented that the description of timing relation should be more elaborated. It should be clearly stated in this study report that the range in USTS would not cause serious problem if it is so.

- Does the timing control have to be done in every 20ms ?

Chairman stated that this exact adjustment period would need to have some elaboration. Why was 20ms chosen? or would there be something else ?

- There are detailed descriptions in section 4.1.3.2 (ex. "*TAB replaces the TPC bit in slot #14 in frames with CFN mod 2 = 0*") that needs to be verified. So some words like 'proposed' should be needed in the introduction sentence like, ' The proposed procedure is as follows..'

- In section 4.1.3.3, the exact timing control step size is defined. It would be better to define the maximum and minimum or all step sizes in between those.

Chairman concluded that this whole section needs more elaboration including the closed loop power control issue.

Section 4.2

- Is figure 4.2 for uplink or downlink timing ? It is uncertain because there is 'beginning of P-CCPCH'.

✍ This figure is for the uplink. (SK Telecom)

This should be elaborated.

- Section 4.2.2 *Channelisation code allocation* is too detailed for the study report. We need to have this level of detailed description in the CR phase but it is too much for the TR.

Is the aim of this work to sp ecify methods ?

Chairman concluded that since this section was based on the contribution from Samsung which had not been yet reviewed, we would decide what we should do on this particular section 4.2.2 after we reviewed that paper. (**R1-00-1160** which had been submitted for RAN WG1 #15 meeting by Samsung.) R1-00-1160 was reviewed in succession after this TR. (See No. 67).

Section 4.3

There was a long discussion on table 4.1.

- What is the difference between Non-USTS and Normal mode ?
- What is the middle of soft handover, how can it be detected ?
- RAN WG2 and RAN WG3 will have the difficulty with this section especially the synchronization requirement for this procedure (code re-allocation, etc) would be problematic for RAN WG3.
- There should be text added in the beginning of the this section that states this section is describing only a sample candidates which is restricted to USTS study report and not universal description of soft handover procedure.
- Candidate 4 [Original cell (Normal) ✍ Target cell (USTS)] should be considered in table 4.1.

Chairman concluded based on the comments received that this whole section needs to be reconsidered.

Section 5

The reviewal of the section 5 was skipped because we already had seen the simulation results.

Section 6

- Regarding the impacts on RAN WG3, chairman suggested to put simply the reference to RAN WG3 TR and delete all the descriptions. But RAN WG3 should be aware the certain synchronization requirements for this procedure in the handover case.
- 6.1.1 Node B hardware requirements would need more elaboration. (Nokia)
- 6.1.4 'delay' should be removed from the heading so that this section can cover more general (all) aspects of closed loop power control.

Conclusion : This TR should be revised reflecting the comments received. We would come back to this when the revision is produced

/** coffee break 10:41-11:07 **/

(*2) This document was originally provided for RAN WG1#15 meeting.

This paper was reviewed in succession right after the reviewal the USTS technical report in order to decide what we should do with the description in section 4.2.2 in the technical report.

Mr. Fredrik Ovesjo (Ericsson) questioned about the aim and goal of this scheme. What problems would be solved by this code allocation rule ?

It was answered that the goal is to provide an efficient rule for code allocation.

There was a bit long discussion regarding this question and finally it was shown that there seems to be no explicit improvement in efficiency in code allocation if we choose the proper code allocation scheme for the comparison.

Chairman concluded based on the discussion that this scheme should be clarified more so that the benefit can be seen clearly.

With respect to the TR, chairman asked people whether we should get rid of the current detailed description or just add text which states "one proposed way of doing allocations is as follows.". Since there was no comments raised, chairman concluded to take the latter.

5.5 Ad Hoc meetings

- TDD Node B synchronisation   Day3 13:30 - 15:30
- High Speed Downlink Packet Access Day3 13:30 - 18:15

Day 3, started at 08.38

5.6 High Speed Downlink Packet Access (Ad Hoc 24)

This was the continuing session from Day2 separate Ad Hoc meeting.
Before starting, chairman presented the summary of the Ad Hoc meeting.

R1-00-1457 *Report from the HSDPA Ad Hoc / Source : RAN WG1 chairman*   (08:39-08:46)
Following 11 documents were covered in the Day2 Ad Hoc session, starting with the simulation issues and addressing also some of the Hybrid ARQ (HARQ) issues.

No.	Ad Hoc	Tdoc	Title	Source
68	**24**	R1-00-1357	Throughput of HSDPA in different channel conditions	Philips
69	**24**	R1-00-1397	HSDPA system performance based on simulation (II)	Motorola
70	**24**	R1-00-1398	Integrated Voice and HSDPA Data system performance	Motorola
71	**24**	R1-00-1404	Simulations of the UMTS traffic model and number of simultaneous active calls	GBT
72	**24**	R1-00-1377	HS-DSCH simulation results	SONY
73	**24**	R1-00-1326	Link Level Simulation Results for HSDPA	Wiscom
74	**24**	R1-00-1327	Influence of channel estimation on the link level performance of HSDPA	Wiscom
75	**24**	R1-00-1385	Further link level results for HSDPA using multiple antennas	Lucent
76	**24**	R1-00-1345	Text proposal for HARQ complexity evaluation in HSDPA TR	Nokia
77	**24**	R1-00-1369	Text proposal on HARQ for HSDPA TR	Nokia
78	**24**	R1-00-1382	Asynchronous and Adaptive Incremental Redundancy (A^{2}IR) Proposal for HSDPA	Lucent

Day3 continuing plenary session on High Speed Downlink Packet Access

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
79	**24**	R1-00-1442	Discussion on ARQ aspects for High Speed Downlink Packet Access	Nortel	Noted	(*1) Day3 08:47-09:28
80	**24**	R1-00-1396	Performance Comparison of Hybrid-ARQ Schemes	Motorola	Noted	(*2) Day3 09:29-09:51
81	**24**	R1-00-1428	Performance Comparison of Chase combining and Incremental Redundancy for HSDPA	Ericsson	Noted	(*3) Day3 09:52-10:32
82	**24**	R1-00-1378	Delay on Control Information for HS-DSCH	Sony	Noted	(*4) Day3 11:00-11:33
83	**24**	R1-00-1381	Downlink and Uplink Channel Structures for HSDPA	Lucent	Noted	(*5) Day3 11:35-12:36
84	**24**	R1-00-1399	Comments on Lucent's Proposal on HSDPA	Motorola		
85	**24**	R1-00-1434	Comments and discussion on HSDPA proposals	Ericsson		
86	**24**	R1-00-1383	Downlink Transport Channel Multiplexing Structure for HSDPA	Lucent	Noted	(*6) Day3 13:39-13:56

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No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
87	**24**	R1-00-1441	Downlink model for High Speed Downlink Packet Data Access	Nortel	Noted	(*7) Day3 13:56-14:18
88	**24**	R1-00-1424	Physical-layer aspects of Fast Cell Selection for HSDPA	Ericsson	To be put in TR	(*8) Day3 14:19-14:53
89	**24**	R1-00-1395	Adaptive Modulation and Coding (AMC)	Motorola	To be revised ✍TR	(*9) Day3 14:54-15:16
90	**24**	R1-00-1394	HSDPA Technical Reports text proposal on Soft Decoding Metric for Multipath Fading Channels	Wiscom	Noted	(*10) Day3 15:16-15:21
91	**24**	R1-00-1464	Text proposal for HARQ complexity evaluation in HSDPA TR	Nokia	Approved	(*11) Day4 12:49-12:51
92	**24**	R1-00-1480	TR 25.848 v0.2.0 Physical Layer Aspects of UTRA High Speed Downlink Packet Access	Motorola	offline checking	No (*12) Comments Day4 12:52-12:54

(*1) In this document, the two main proposals which had been submitted in the RAN WG1 in a frame work of HSDPA were analysed in terms of several aspects shown below. At the same time commonalities and differences were identified.

    - processing time
    - variation of number of blocks in each TTI
    - multiplexing of users in time
    - New/Continue indication
    - Chase versus/ Incremental redundancy
    - Interaction with Fast Cell Selection
    - Interaction with Adaptive Modulation and Coding
    - Aspects specific to one of the methods

Ms. Evelyne Le Strat (Nortel) commented that although addressing the complexity issue associated with HARQ, some proposals go a lot further than the RAN WG1 scope. She stated RAN WG1 scope is restricted to the analysis of the feasibility/benefit of hybrid ARQ vs. the ARQ method which is part of Release99, as HARQ was identified as a potential technology in the framework of HSDPA. She added, however the initial discussion so far in RAN WG1 seems to be expanding, concentrating on the evaluation of HARQ in general and that is the scope RAN WG2.

Chairman thanked this analysis to realize exactly what have been simulated. He invited the proponents of the proposals treated in this document to provide the updates of their documents along with this analysis before next RAN WG1 and RAN WG2 meetings.

(*2) Simulation results were presented for two methods for Hybrid ARQ (Chase combining method and Incremental Redundancy method) for performance comparison. It was shown that a system with adaptive modulation and coding (AMC) can have nearly identical throughput for each method. Since the Chase combining method is much simpler in terms of memory, processing and signalling requirements and since with this study the Incremental Redundancy method is not advantageous compared to Chase combining, it was suggested that the Chase combining method is preferable.

Same coding scheme, modulation were used for re-transmission in this simulation.

Several comments were made on the fact that the same coding scheme, modulation were used for re-transmission. It was commented that with different coding scheme, different modulation for re-transmission including the feedback delay, change in channel condition, conclusion might be different.

It was answered that the reason why the same scheme was used was to achieve the fast cell selection.

(*3) This paper also presented simulation results for two methods for Hybrid ARQ (Chase combining method and Incremental Redundancy method.) In contrast to the previous paper (Motorola), it was shown that the link-level performance of Incremental Redundancy method is significantly better than Chase combining for high channel coding rates and for large modulation sizes. It was also shown that for the same code rate we obtain higher gains with Incremental Redundancy method compared to Chase combining for higher modulation orders. It was also shown that this link-level gain may be important in case the error in the channel quality estimate is large. There is no significant difference between Incremental Redundancy method and Chase combining method for low coding rates and small modulation sizes or when the error of the channel quality estimate is small.

As a conclusion, 2 combining methods of Incremental Redundancy and Chase combining were proposed based on the given simulation results.

It was stated that the reason of the difference of Motorola's paper which did not identify much difference between two method was that Motorola used the Partial Incremental Redundancy where very few additional incremental redundancy bits were added compared to the systematic bits. For high code rate, we have almost only systematic code bits and all these systematic bits are repeated in Motorola paper whereas in this paper Full Incremental Redundancy was assumed.

There were some questions and answers on the simulation assumptions and the transport-block processing scheme.

Chairman commented regarding how we should do with Chase combining and Incremental Redundancy or the combination use of these 2 methods that we have to see what channel estimation performance is achievable, whether we can see the benefit or not. And then we have to consider the possible complexity in terms of memory

and other requirements.

(*4) This document presented some studies on throughput sensitivity to the delay of downlink channel quality measurement feedback from the UE under varying channel conditions. This feedback information on the channel condition is to be used to determine modulation and coding scheme for HS-DSCH. The mechanism of the delay and some simulation results that shows impacts on the throughput degradation caused by the feedback delay were presented. The document also discussed a method using TPC commands for adjusting the downlink channel quality and showed that it would work to some extent to recover the throughput lost by the delay. As a conclusion it was suggested that the following issues should be clarified and studied.

- DL channel quality transmission scheme (Channel Type)
- Reporting rate and delay for DL channel quality with respect to HS-DSCH TUI
- HS-DSCH TF transmission scheme and associated delay

There were some discussion made regarding the assumptions on

- information carrier of the downlink channel quality (DPDCH, DPCCH)
- feasibility of CPICH SIR
- interaction when using the TPC commands in soft handover
- does this need to be specified in the specification ?

It was questioned by the proponent whether their can continue the work with the current assumptions.

Chairman answered the work should be continued with the current assumptions to keep the results comparable to the earlier ones apart from the detailed values. TTI length as well as processing time in UE and Node B should be considered in the evaluation.

(*5) Lucent paper proposed downlink and uplink channel structures and frame formats in support of the High Speed Downlink Shared Channel (HS-DSCH).

Commenting papers had been provided from Motorola (R1-00-1399) and Ericsson (R1-001434) respectively on the Lucent paper.

After the presentation of Lucent paper, at first chairman suggested to go through item by item with having discussion based on those commenting paper. As the first topic, "Explicit Rate Information from the UE" was discussed. Motorola and Ericsson presented corresponding part of their commenting paper and Lucent made refutation to each of those comments. Ms. Evelyne Le Strat (Nortel) joined the discussion supporting the comments from Ericsson.

Discussion grew very long and finally even before reaching the conclusion of the first item, chairman proposed to stop the discussion on line and resume in the next meeting. He asked people to digest the documents by the next meeting. He also suggested that the discussion / clarification on the e-mail reflector should be done prior to the next meeting.

(*6) This document presented a model of downlink transport channel multiplexing structure for High Speed Downlink Packet Access and introduced the idea of time division multiplexing of transport channel.

Ms. Evelyne Le Strat (Nortel) made several comments. She stated that Nortel provided the paper (**R1-00-1441**) in which they described how they understand this particular proposal in comparison to the existing scheme. The comments she made here were also summarized in R1-00-1441.

Lucent stated that it would make sense to have a look at the mentioned document R1-00-1441 before making their answers to the comments raised by Ms. Evelyne Le Strat. They stated that their proposal was actually not limited by the description of TS 25.212. Their proposal was an attempts to simplify and improve multiplexing efficiency described in TS 25.212.

(*7) This was a general discussion paper which summarized what the main characteristics of the DSCH model are in Release 99 and listed possible modifications of the model in the framework of HSDPA. After the explanation of the Release 99 model, 4 alternatives for High Speed Downlink Packet Access were reviewed and summarized. The decision criteria for those different alternatives was also presented. Alternative 3 and 4 was corresponding to the model proposed by Lucent.

Lucent commented that there seemed to be misunderstanding of their document especially on Figure 2 in R1-00-1383 and explained their stances on each comments made by Ms. Evelyne Le Strat (Nortel).

Finally chairman concluded that the different options like fixed / variable SF or fixed / variable TTI are definitely to be covered in the TR with the impact analysis's on RAN WG1 and RAN WG2. For the time multiplexing issues currently we have something mentioned in the TR but it is general description. Chairman stated that at some point of time we should discuss this topic in more details. Chairman invited people to draft text proposals on those options on the e-mail reflector prior to our next meeting so that RAN WG2 colleagues can have chance to review them.

(*8) This paper discussed the physical layer impact of Fast Cell Selection (FCS). It was pointed out that FCS can inherit many of its physical layer functionality from SSDT, implying that FCS for HSDPA can be implemented with little impact on e.g. UE complexity.

It was proposed that the text presented in this paper should be included as part of the RAN WG1 TR on HSDPA. It was pointed out in this paper that there is one aspect that needs special attention, that is whether physical layer signalling is to be used to transfer transmission-state information over-the-air in case of fast inter-Node-B cell selection. As a conclusion, it was stated that the potential performance benefits with fast inter-Node-B cell selection need to be further evaluated together with the evaluation of the means by which the physical layer can support the necessary signalling.

Chairman commented that from the feasibility point of view it seems that we do not have any problem to state in the technical report that basically similar process as SSDT can be used in terms of measurement and signalling.

He added however for the fast inter-Node B cell selection issue, we do not have to go into detail at this point although it can be mentioned in the TR so that we do not forget the issue.

Conclusion: Text proposal for this to be produced and put into the technical report.

(*9) This document provided the text for Section 6.2 titled "Adaptive Modulation and Coding" of the technical report. It was shown that 7 levels of MCS are not necessary and the number can be reduced 5. Since there was a similar contribution from Sony (**R1-00-1377**, reviewed in Day2 Ad Hoc), proponent proposed that they will combine this text proposal with the result of R1-00-1377 for the actual text proposal.

It was commented that t here definitely should be some clarification needed together with the set of results.

It was also commented that the description of AMC with HARQ should be a bit more elaborated so that the fact that HARQ enables the scheme less impacted by measurement errors is mentioned.

Conclusion: This text proposal should be modified to reflect the comments and to take the results of R1-00-1377 in and revision will be put into the technical report.

(*10) Chairman suggested that turbo code experts should check this and if there is no problem found, then this would be incorporated in the technical report in the next meeting.

(*11) This was the revision of **R1-00-1345** which was reviewed in the HSDPA Ad Hoc on Day2. This would be incorporated in the TR in the next meeting.

(*12) Since this was very big document chairman proposed to have offline checking (e-mail reflector) by the next meeting. This will be revisited in the next meeting.

5.7 Ad Hoc report (AH30 TDD Node B)

R1-00-1458 *TDD NodeB Synchronisation and release 99 CRs*   (Day3 15:22-15:30)

As for TDD NodeB synchronisation, AdHoc#30 achieved an agreement on the general concept, the construction of the synchronisation burst, and the principle extensions for the RAN WG1 specifications. It recommends to update the TR 25.836 accordingly and to present it to TSG RAN#10 after approval by TSG RAN WG1. The updated TR is included in Tdoc **R1-00-1467**.

Moreover, AdHoc#30 recommended to close the TR 25.836 after the possible approval in RAN#10 and to continue the work with the CRs for the respective specifications afterwards. A corresponding LS should be sent to WG2, 3, and 4. The draft LS is included in **R1-00-1465**.

 /** Chairman stated that he would provide a single common LS for all Rel'4 items and so this LS (R1 -00-1465) was not reviewed. R1-00-1475 was allocated for this common LS but eventually it was drafted in **R1-00-1489**, See No. 120) **/

As for the release 99 items, AdHoc#30 agreed on the CR in Tdoc **R1-00-1402** (alpha value) and recommends to present it to the plenary for approval. A LS should be sent to WG3 encouraging to do the necessary changes in their specifications during their current meeting WG3#18. The draft LS is included in **R1-00-1466**.

For the CRs included in Tdoc R1-00-1340 and R1-00-1341, AdHoc#30 agreed in principle on the proposals. Since there is more time needed for the discussion, it recommends to postpone the final decision to WG1#18.

Ad Hoc report was approved with no comment. Following 3 documents were reviewed in connection with the Ad Hoc report.

CR 25.224-043 (R1-00-1402) was reviewed in the plenary and approved. (See No. 40)

LS (R1-00-1466) was reviewed and approved. (See No.112)

/** Coffee break 15:32 -15:57 **/

R1-00-1467 *Draft TR on " NodeB Synchronisation for TDD" / Source editor*   (15:57-16:05)

There was one comment for clarification of the one sentence in section 7.1

  "*In general, at least one time reference (e. g. GPS) is needed … *"

It was answered that for redundancy there could be more than one time reference based on the same reference like GPS but one reference could be enough.

Chairman commented regarding Annex A that the embedded document (R1-00-1351) should be replaced by the actual text.

There were no other comments. By putting the actual texts into Annex A this TR would be raised to v2.0.0 and would be submitted to RAN #10. v2.0.0 can be found in **R1-00-1474**.

5.8 Positioning (Ad Hoc 29)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
93	**29**	R1-00-1355	LCS for 3.84 Mcps TDD	Siemens	Noted	(*1) Day3 18:10-18:28
94	**29**	R1-00-1389	Simulation results for the OTDOA-PE positioning method	Panasonic	Noted LS ✍ R2	(*2) Day3 18:28-19:04

(*1) This paper presented simulation results which showed that with idle periods, LCS for 3.84Mcps can achieve sufficient accuracy and coverage. It was stated that channels which are to be used for TOA measurements should not be restricted to any specific one so that the operator and manufacture can have flexibility on their implementation. It was also stated that since the measurement already is existing, no special LCS signal consequently no changes to the Layer 1 specification of the 3.84 TDD mode are needed.
There are some comments made regarding simulation assumptions and model.
It was commented that performance improvement shown here is a bit optimistic. It would probably be there but the actual figures would be more shifted to worse direction depending on the model.

(*2) This paper presented simulation results which showed significant increase in positioning accuracy when position elements (PEs) are used in conjunction with IPDL. Though impacts on the system in quantity or impacts on cell search needs to be further investigated, considering that RAN WG2 has stopped their discussion waiting for our results it was proposed to liaise with RAN WG2 informing that RAN WG1 has been discussing OTDOA-PE proposal and this method has the potential to provide a significant increase in positioning accuracy compared to the OTDOA-IPDL.
Some discussion was made.
  - Is this Release 4 work item ? ✍ Yes, there is already technical report in RAN WG2 (TR 25.847)
  - As for the release schedule, it would be discussed in next RAN plenary. (chairman)
  - Who will end up specifying this PE transmission ? Several specification will be affected. RAN WG2 does not have expertise to specify synchronisation sequence or conflicting issues.
  - We should have some idea where this would be specified from RAN WG1 point of view whatever release it will be. ✍ How about asking this to RAN WG2 ?
  - RAN WG4 would have to specify some kind of requirements.
Conclusion : LS to RAN WG2 informing current RAN WG1 status will be produced.
This LS was drafted in **R1-00-1484** and approved in **R1-00-1486** on Day4. (No.115)

5.9 TDD 1.28 Mchips functionality (Ad Hoc 21)

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
95	**21**	R1-00-1352	Coding of transport formats combination indicator (TFCI) for QPSK of 1.28Mcps TDD	CWTS/CATT	Approved	No Comment Day3 19:28-19:32
96	**21**	R1-00-1353	Dedicated channel synchronisation	CWTS/CATT	Not Approved	(*1) Day3 19:32-19:36
97	**21**	R1-00-1354	Monitor GSM from 1.28Mcps TDD	CWTS/CATT	Approved	(*2) Day3 19:36-19:44
98	**21**	R1-00-1361	Channel coding for 1.28Mcps TDD	CWTS/CATT	To be revised	(*3) Day3 19:44-19:52
99	**21**	R1-00-1449	Considerations about transmission and coding of uplink synchronization control (ULSC)	Siemens	Discussed	(*4) Day3 19:52-20:16
100	**21**	R1-00-1450	Coding of SS commands in 1.28Mcps TDD	Siemens	Offline discussion	(*5) Day3 20:16-20:23
101	**21**	R1-00-1451	Transmission of SS commands in 1.28Mcps TDD	Siemens	Noted ✍ offline	(*6) Day3 20:23-20:27
102	**21**	R1-00-1448	Coding of TPC commands in 1.28Mcps TDD	CWTS/CATT	Approved	(*7) Day3 20:27-20:30
103	**21**	R1-00-1472	Response to LS (R2-002394) on UE capabilities for Low Chip Rate TDD	CWTS/CATT	To be revised	(*8) Day3 20:30-20:41
104	**21**	R1-00-1468	Downlink Tx Diversity Schemes for 1.28Mcps UTRA TDD	Samsung	Approved	No Comment Day3 20:44-20:54
105	**21**	R1-00-1473	Proposed modification on structure of TR25.842 (Smart Antenna)	CWTS	Approved	(*9) Day4 10:10-10:15

| 106 | **21** | R1-00-1268 | Propagation Delay Measurement in 1.28 Mcps UTRA TDD | Samsung Siemens CWTS | To be revised | (*10) Day4 10:16-10:27 |

Text proposals approved here will be included in the latest working CRs (which had been on the reflector prior to this meeting and no comments had been made.).

(*1) Chairman suggested that it would be better to put simply "This procedure is same as 3.84Mcps TDD" rather than copy-and-pasting all the text.

(*2) As for the last paragraph, something like "Note" or "RAN WG1 Note" should be put. This paragraph would be needed for the reminder but not be supposed to be included in the specification. The information or explanation described in the last paragraph should be provided before being approved as an actual CR.
Chairman commented about GSM handover measurements for data rates over 32kbps. This needs to be studied.

(*3) Table 1 looks complicated. This should be a bit more elaborated editorially. (Chairman)
There took place a discussion regarding how we should coordinate 3.84Mcpc and 1.28Mcps description in the specification. As decided before, 1.28Mcps description should not touch the existing 3.84Mcps description.
Chairman suggested putting another separate table for 1.28Mcps in section 4.3.

(*4) This paper presented some simulation results for low chip rate TDD for performance analysis of the uplink synchronization. "do-nothing" symbols are introduced for the synchronization control. Results showed the benefit of 1/8 chip precision and effect of "do-nothing" symbols.
There was some discussion on allocation of 3 symbols meaning "up" "down" and "do-nothing". Chairman suggested offline discussion.
Chairman also commented that the exact precision of "1/8 chip" should not be recommended because it could deprive the implementation freedom on the sampling ratio even though taking into account that this is for low chip rate option. Chairman would join the offline discussion.

(*5) This was the text proposal of **R1-00-1449** introducing the bit allocation of synchronization commands.
Chairman commented we should come back to this topic after the offline discussion regarding the original proposal contained in R1-00-1449.
Ms. Evelyne Le Strat (Nortel) commented that TS 25.222 is not proper specification for this kind of information to be included. (this should be provided in TS 25.224)

(*6) Due to the lack of time, chairman suggested this to be discussed offline.

(*7) Contents were approved. But it was suggested that this should be included in TS 25.224 rather than TS 25.222.

(*8) This was the proposed answer liaison to **R1-00-1417** (R2-002468) which was reviewed in Day1. (See No.15)
R1-00-1417 was briefly reviewed on Day1 however since the attached document R2-002394 was very detailed table it was requested that we need more time to check the values carefully before making answer saying that we have agreed to it.
Chairman concluded that this draft LS should be revised so that it says that RAN WG1 still needs time to check the values. The revision is in **R1-00-1479**. This was reviewed on Day4 and further revised in **R1-00-1485** by the chairman. (See No.114)

(*9) Structure of the TR was modified by removing 3.84Mcps TDD related description.
There was a comment that the purpose, expected outcome, completion schedule of this TR should be clarified.
This TR would not be submitted to next RAN.

(*10) Chairman commented that we should not define the resolution nor the range in the measurement definition.
Those are something that should be given by RAN WG4 specification.
There was one question for the reason of '8*16Tc'. ✎ offline discussion.
Chairman suggested that proponent should provide the revision which removes the resolution for the working CR in the next meeting.

5.10 Tx Diversity (Ad Hoc 26)

It was agreed to set the deadline for the conclusions for new TX diversity methods for TSG RAN#12 (June 2001).
TR will be created.

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
107	**26**	R1-00-1360	Results of Tx diversity simulations using the eigenbeamformer in a static propagation environment	Siemens	Noted	(*1) Day4 08:18-08:27
108	**26**	R1-00-1358	Time variant simulation parameters for Tx diversity using correlated antennas	Siemens	Noted	(*2) Day4 08:28-08:32
109	**26**	R1-00-1271	Transmit Diversity Operation for DSCH in SHO Region	Samsung	Noted	(*2) Day4 08:32-08:39

(*1) This paper presented simulation results comparing the performance of different methods for closed-loop transmit diversity. Performance of Release '99 mode1, Nokia's extension and Siemens eigenbeamformer were compared.
It was commented that the result of release '99 mode1 seems independent of mobile velocity whereas the results of eigenbeamformer method seems quite dependent on mobile velocity. It should be independent though.

(*2) Chairman commented that people would need to have time to check the details with experts and therefore comments and discussion had better take place in the next meeting.

5.11 RAN technical small enhancements and improvements

No.	Ad Hoc	Tdoc	Title	Source	Conclusion	Notes
110	**32?**	R1-00-1447	Improved Uplink Power Control at Power Limits	Siemens	Noted	(*1) Day4 09:30-10:04

(*1) This was the revision of **R1-00-1359**.
There were some questions and answers discussion took place on the simulation assumptions.
It was commented that it should be clarified how this significant 3 dB gain can be achieved.
Chairman asked people whether we can proceed this for release 4.
There was one opinion that this should be included in release 99. Chairman explained that now we only can make correction for release 99 unless there is really problems.
Since there were no other comments it was confirmed that we should proceed this for release 4.
Chairman asked proponent to provide the CR on this issue for release 4 and also provide the clarifications to the questions raised in our upcoming meetings.
Chairman added that no new WI is needed; we can use "RAN technical small enhancements and improvements".

Day 4, started at 08.04

6. Change Requests for Release 4 specifications / Technical Reports

No.	CR	rev.	TS	Tdoc	Title	Cat	Source	Conclusion	Notes
111	XXX	-	25.926	R1-00-1392	DSCH related updates for UE capabilities for the UE Radio Access Capability parameter combinations	C	Nokia	Approved	No (*1) Comments Day4 08:13

(*1) Mr. Jussi Kahtava (Nokia) presented this CR. This CR contained LS + CR.
Since this CR was approved it would be sent to RAN WG2. Chairman asked Mr. Jussi Kahtava to correct a couple of spelling errors and put the T-doc number **R-00-1483** on the LS and provide it to the secretary.

7. Approval of the liaison statements as output from WG1

No	Discussed Tdoc	Source	To/Cc	Title	Approved Tdoc	Notes
112	R1-00-1466	Siemens	R3 Cc: R2	Upper Limit for the alpha value for open loop power control	R1-00-1466	No (*1) Comment Day3 15:32
113	R1-00-1392	Nokia	R2	Modification to the UE capability in TR 25.926 for Release 4	R1-00-1483	No (*2) Comment Day4 08:13
114	R1-00-1479	CWTS	R2	Response to LS (R2-002394) on UE capabilities for Low Chip Rate TDD	R1-00-1485	(*3) Day4 11:11
115	R1-00-1484	Panasonic	R2	LS on physical layer aspects of the OTDOA-PE positioning method	R1-00-1486	No (*4) Comment Day4 11:14
116	R1-00-1426	Siemens	R3	LS from WG1 to WG3, reply to LS on Radio Link Initialisation	R1-00-1487	(*5) Day4 11:24
117	R1-00-1421	Ericsson	R2 Cc:R3	Response to LS (R2-002133) on TFCI in the case of invalid set of transport blocks and during DPCH synchronisation	R1-00-1490	(*6) Day4 12:15
118	R1-00-1422	Ericsson	R2,R4 Cc:R3	Answer on liaison on power control preamble length	R1-00-1491	No (*7) Comment Day4 12:35
119	R1-00-1462	Nokia	R4 Cc:R2	LS from R1 to R4: Handover measurements during RX gating	R1-00-1492	No (*8) Comment Day4 12:40
120	R1-00-1489	Chairman	R2,R3,R4	Status of Release 4/5 items in TSG RAN WG1	R1-00-1489	(*8) Day4 12:47

(*1) This LS was agreed in the TDD Node B synchronization Ad Hoc and approved in the plenary on Day3. (See section 5.7)

(*2) This LS was reviewed on Day4 with the attached CR. (See No.111)

(*3) This was the revision of R1-00-1472 which was reviewed on Day3 night. (See No.103)
It was commented that it should be clearly stated that no CR to 25.926 should be created on this table until RAN WG1 agrees the values.
Chairman inserted following sentence on the screen.
"*In order to do some further verification of the physical layer parameters, TSG RAN WG1 still needs more time before CR to TR 25.926 is finalised.*"

(*4) See No. 94

(*5) See No. 53. There was one comment that "is currently discussing" should be replaced by "has discussed".

(*6) See No.1 and No.2 (Last paragraph of R1-00-1413)

(*7) See No.2

(*8) See No.59
It was commented that the word "slightly" should be removed from the last sentence and this LS should be sent to RAN WG2 as well.

(*9) See below.

8. Status of Release 4/5 items in TSG RAN WG1 (LS from RAN WG1 chairman R1-00-1489)

TSG-RAN WG1 would like to inform other RAN TSGs of the status of the Rel'4 work items being worked in TSG RAN WG1 and being under TSG RAN WG1 leadership.

For the following work items TSG RAN WG1 has created TR to be provided for TSG RAN as version 2.0.0:
- TDD Node B synchronisation
- Terminal power saving (DPCCH gating)
- DSCH power control improvement in soft handover

On these items TSG RAN WG1 will start creating the CRs towards TSG RAN #11 and would like the impacted WGs to aim for having CRs for TSG RAN#11 as well.

For the 1.28 Mcps TDD TSG RAN WG1 has worked further on the working CRs with the milestone for actual CRs for the TSG RAN #11 as well.

For the Release 4 study items where TSG RAN is tasked to work, study reports are under preparation for TSG RAN#11 on the High Speed Downlink Access (under TSG RAN WG2 leadership) and on Uplink Synchronous Transmission.

For the WI "RAN Small Technical enhancements and improvements", a topic was identified on the power control behaviour at power limits. TSG RAN WG1 will further inverstigate this topic for Rel'4. This item is initially considered to be TSG RAN WG1 internal, but TSG RAN WG4 will be kept informed to see whether there is an impact or not.

For the Release 5 items, TSG RAN WG1 has set the milestone for conclusions on possible TX diversity enhancements as TSG RAN #12.

Further TSG RAN WG1 has addressed smaller items for Release 4/5 including UE capability and positioning and has provided separate LSs on the topics. For the TDD IPDL periods positive conclusions on the feasibility were also reached.

9. WG1 meeting schedule in year 2000 -2001(Tentative)

Meeting	Month	Date	Location	Notes
RAN WG1 #10	January	18-21	China	Host Nokia
RAN WG1 #11	February	29 – March 3	USA	Host T1P1
RAN #7	March	13-15	Madrid, Spain	
RAN WG1 #12	April	10-13	Korea	Host TTA
RAN WG1 #13	May	22-25	Tokyo, Japan	NTT DoCoMo
RAN #8	June	21-23	Dusseldorf, Germany	
RAN WG1 #14	July	4-7	Finland	Host Nokia
RAN WG1 #15	August	22-25	Germany	Host Siemens
RAN #9	September	20-22	Hawaii	
RAN WG1 #16	October	10-13	Pusan, Korea	Samsung, LGIC
RAN WG1 #17	November	21-24	Stockholm, Sweden	Ericsson
RAN #10	December	6-8	Bangkok, Thailand	Unisys
RAN WG1 #18	January	15-18	U.S.A. Boston With R4	T1P1 (*2)
RAN WG1 #19	February	27 – March 2	U.S.A. Lasvegas	Host Motorola
RAN #11	March	14-16	Palm Springs, CA U.S.A.	T1
Physical Ad Hoc	April	Tentative		(*1)
RAN WG1 #20	May	21-25 (**5days**)	Cheju ?, Korea withR2,3	Samsung
RAN #12	June	13-15	Stockholm, Sweden	Ericsson
RAN WG #21	June	26-29	Paris, France	Nortel(tentative)
RAN WG #22	August	27-31	T.B.D.	Host needed
RAN #13	September	19-21	Beijing, China	Lucent, CWTS
RAN WG #23	October	8-12	T.B.D.	Host needed
RAN WG #24	November	19-23	T.B.D.	Host needed
RAN #14	December	12-14	Tokyo, Japan	ARIB, TTC

(*1) Whether this physical Ad Hoc is to be held or not is depending on the status of the Release 4 items.
     Since HSDPA is the biggest Release 4 topic in RAN WG1, it would be most likely the candidate.
     RAN WG1 chairman will coordinate with other WGs chairmen on this Ad Hoc.
(*2) Through Monday to Friday

Annex A : List of approved CRs (Approved in RAN WG1 #16 and #17 meetings)

1. TS 25.211

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.211	079	2	R1-00-1296	Clarification of downlink phase reference	F	Ericsson	16-43	RP-000537	3.4.0	3.5.0
2	25.211	083	1	R1-00-1260	DL Transmission in the case of invalid data frames	F	Philips	16-45	RP-000537	3.4.0	3.5.0
3	25.211	084	-	R1-00-1194	Clarification of figure 28	F	Ericsson,NEC	16-11	RP-000537	3.4.0	3.5.0
4	25.211	087	-	R1-00-1289	RACH message part length	F	Nortel	16-46	RP-000537	3.4.0	3.5.0
5	25.211	088	-	R1-00-1333	Clarifications on power control preambles	F	Vodafone, Ericsson	17-22	RP-000537	3.4.0	3.5.0
6	25.211	089	1	R1-00-1430	Proposed CR to 25.211 for transfer of CSICH Information from Layer 3 Specification	F	GBT, Samsung	17-41	RP-000537	3.4.0	3.5.0
7	25.211	090	-	R1-00-1405	PCPCH/DL-DPCCH Timing Relationship	F	GBT, LGE	17-42	RP-000537	3.4.0	3.5.0

2. TS 25.212

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.212	094	2	R1-00-1295	Correction of BTFD limitations	F	Ericsson	16-47	RP-000538	3.4.0	3.5.0
2	25.212	096	-	R1-00-1227	Compressed mode by puncturing	F	Nortel,InterDigital	16-35	RP-000538	3.4.0	3.5.0
3	25.212	097	-	R1-00-1277	Clarification on the Ci formula	D	Mitsubishi	16-36	RP-000538	3.4.0	3.5.0
4	25.212	099	-	R1-00-1427	Editorial modification in RM section	F	Mitsubishi	17-34	RP-000538	3.4.0	3.5.0
5	25.212	100	1	R1-00-1477	Editorial corrections in TS 25.212	F	NTT DoCoMo	17-54	RP-000538	3.4.0	3.5.0
6	25.212	101	-	R1-00-1446	Correction to code block segmentation	F	Mitsubishi	17-43	RP-000538	3.4.0	3.5.0

3. TS 25.213

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.213	037	1	R1-00-1297	Proposed removal of the option of secondary scrambling code for some downlink common channels	F	Nokia	16-44	RP-000539	3.3.0	3.4.0

4. TS 25.214

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.214	128	1	R1-00-1226	Clarification of downlink quality measurement in SSDT	F	NEC	16-93	RP-000540	3.4.0	3.5.0
2	25.214	129	-	R1-00-1183	Formula typography and reference corrections	F	Siemens	16-21	RP-000540	3.4.0	3.5.0
3	25.214	130	1	R1-00-1274	Radio link establishment and sync status reporting	F	Ericsson	16-39	RP-000540	3.4.0	3.5.0
4	25.214	133	-	R1-00-1213	Correction of RACH/CPCH physical random access procedure	F	Panasonic	16-18	RP-000540	3.4.0	3.5.0
5	25.214	134	-	R1-00-1214	Correction of uplink power control algorithm 2	F	Panasonic,Philips	16-19	RP-000540	3.4.0	3.5.0
6	25.214	135	1	R1-00-1463	TPC command generation on downlink during RLS initialisation	F	Siemens	17-53	RP-000540	3.4.0	3.5.0
7	25.214	136	1	R1-00-1273	Clarification of RACH behaviour at maximum and minimum power	F	Siemens	16-38	RP-000540	3.4.0	3.5.0
8	25.214	137	-	R1-00-1333	Clarifications on the description of the radio link establishment procedure (when no radio link exists)	F	Vodafone, Ericsson	17-20	RP-000540	3.4.0	3.5.0
9	25.214	138	1	R1-00-1437	Corrections on power control preambles	F	Vodafone, Ericsson	17-44	RP-000540	3.4.0	3.5.0
10	25.214	139	1	R1-00-1438	Clarification of RACH procedure	F	Ericsson	17-39	RP-000540	3.4.0	3.5.0
11	25.214	140	-	R1-00-1400	Uplink power control in compressed mode	F	Alcatel	17-24	RP-000540	3.4.0	3.5.0
12	25.214	141	1	R1-00-1420	Revision of the abbreviation list	F	NEC	17-35	RP-000540	3.4.0	3.5.0

5. TS 25.215

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.215	069	3	R1-00-1291	Support of parallel compressed mode patterns	F	Ericsson	16-48	RP-000541	3.4.0	3.5.0
2	25.215	074	1	R1-00-1195	Clarification of SIRerror measurement during compressed mode	F	Ericsson	16-40	RP-000541	3.4.0	3.5.0
3	25.215	075	2	R1-00-1432	Definition of UTRAN RSSI	F	Nokia, Ericsson	17-37	RP-000541	3.4.0	3.5.0
4	25.215	076	1	R1-00-1257	Clarification of GPS timing measurements	F	Ericsson	16-42	RP-000541	3.4.0	3.5.0
5	25.215	077	2	R1-00-1433	Clarification of reference point for UE/UTRAN measurements	F	Nokia, Ericsson	17-38	RP-000541	3.4.0	3.5.0
6	25.215	078	1	R1-00-1318	Correction to measurement "Rx-Tx time difference"	F	QUALCOMM	17-25	RP-000541	3.4.0	3.5.0
7	25.215	080	1	R1-00-1455	Clarifications to compressed mode usage	F	Motorola	17-45	RP-000541	3.4.0	3.5.0

6. TS 25.221

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.221	034	-	R1-00-1003	Correction on TFCI & TPC Transmission	F	Siemens	17-30	RP-000542	3.4.0	3.5.0
2	25.221	035	1	R1-00-1009	Clarifications on Midamble Associations	F	Siemens	16-49	RP-000542	3.4.0	3.5.0
3	25.221	036	-	R1-00-1342	Clarification on PICH power setting	F	Siemens	17-26	RP-000542	3.4.0	3.5.0

7. TS 25.222

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.222	049	-	R1-00-1277	Clarification on the Ci formula	F	Mitsubishi	16-37	RP-000543	3.4.0	3.5.0
2	25.222	050	-	R1-00-1003	Correction on TFCI & TPC Transmission	F	Siemens	17-31	RP-000543	3.4.0	3.5.0
3	25.222	053	1	R1-00-1477	Editorial corrections in TS 25.222	F	NTT DoCoMo	17-55	RP-000543	3.4.0	3.5.0

8. TS 25.224

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.224	035	1	R1-00-1470	Radio Link establishment and sync status reporting	F	Siemens, InterDigital	17-56	RP-000544	3.4.0	3.5.0
2	25.224	040	-	R1-00-1342	Clarification on PICH power setting	F	Siemens	17-27	RP-000544	3.4.0	3.5.0
3	25.224	042	-	R1-00-1372	Correction to TDD timing advance description	F	Siemens	17-28	RP-000544	3.4.0	3.5.0
4	25.224	043	-	R1-00-1402	Limit on maximum value of alpha used for open loop power control	F	Siemens	17-40	RP-000544	3.4.0	3.5.0

9. TS 25.225

No.	Spec	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.225	018	2	R1-00-1453	Corrections and Clarifications to 25.225	F	Siemens	17-51	RP-000545	3.4.0	3.5.0
2	25.225	019	1	R1-00-1452	Corrections and Clarifications to 25.225	F	Siemens	17-50	RP-000545	3.4.0	3.5.0
3	25.225	020	1	R1-00-1319	Clarification of measurement reference points	F	Siemens	16-95	RP-000545	3.4.0	3.5.0
4	25.225	021	-	R1-00-1348	Removal of incorrect note relating to RSCP measurements	F	Siemens	17-29	RP-000545	3.4.0	3.5.0

10. TR 25.944

No.	TR	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.944	003	2	R1-00-1471	Corrections for FDD part of TR 25.944	F	NTT DoCoMo	17-52	RP-000546	3.2.0	3.3.0
2	25.944	004	-	R1-00-0997	TDD related changes for TR25.944, update	F	Siemens	17-46	RP-000546	3.2.0	3.3.0

11. TR 25.926

No.	TR	CR	Rev	R1 T-doc	Subject	Cat	Source	Ref.	RAN T-doc	V_old	V_new
1	25.926	015	2	R1-00-1488	Correction on parameter "Maximum total number of transport blocks…"	F	Mitsubishi	17-57	RP-000578	3.2.0	3.3.0

Note 1. Total 49 CRs were approved. In addition, 1CR for TR 25.926 was approved.

Note 2. CR 25.211-080, CR 25.214-131 (both contained in R1-00-1197 from Philips) were superseded by CR 25.211-088(R1-00-1333) and CR 25.214-138r1(R1-00-1437) respectively. Note that R1-00-1333 also contains an earlier (non-approved) version of CR 25.214-138.

Note 3. CR 25.214-132 (R1-00-1207) was superseded by CR 25.214-140 (R1-00-1400).

Note 4. The revision number of CR 25.224-018 (R1-00-1453) has been changed by the secretary from rev1 to rev2.

Note 5. CR 25.926-015r2 will be grouped in RAN WG2 CRs for RAN submission but will have source name as RAN WG1 and RAN WG2. TR 25.926 will be upgraded to TS 25.306 in RAN plenary meeting #10

Annex B The Participants List

Family name	First name	Company
Aksentijevic	Mirko	Nokia Networks
Aspray	David Lee	Hutchinson3g UK Ltd,
Atarashi	Hiroyuki	NTT DoCoMo
Baeder	Uwe	Rohde & Schwar
Bahrenburg	Stefan	Siemens Ltd. China
Barberis	Sergio	CSELT
Belaiche	Vincent	Mitsubishi Electric Telecom Europe S.A.
Billy	Nicolas	Alcatel
Bong	Hoe Kim	LG Electronics
Boumendil	Sarah	Nortel Networks
Bretschneider	Jens	Systemonic AG
Burbidge	Richard	Motorola
Burkert	Frank	Siemens AG
Bär	Siegfried	Siemens .AG
Chae	Soo-Chang	ETRI
Chambers	Peter	Roke Manor Research
Chen	Dong	Siemens
Czapla	Liliana	InterDigital Communicaitons
Dahlman	Erik	Ericsson Radio Systems AB
de Benedittis	Rossella	Siemens S.p.A
Dick	Stephen	Intel Digital Communication Corp.
Dr Höhn	Volker	Mannesmann Mobilfunk
Dr Pollakowski	Olaf	Siemens AG
Dr Purat	Marcus	Siemens AG
Drewes	Christian	Infineon Technologies
Falaki	Hamid Reza	Lucent Technologies
Frenger	Pål	Ericsson Radio Systems AB
Futukata	Toshiyuki	NTT DoCoMo Inc
Gerstenberger	Dirk	Ericsson Radio Systems AB
Ghosh	Amitabha	Motorola
Gopalakrishnan	Nandu	Lucent Technologies
Goudard	Nathalie	Wavecom
Griguer	Marc	France Telecom
Guilbaud	Michael	Alcatel Business Systems
Hallam-Baker	Nick	Tality UK
Hamorsky	Jozef	Sony International
Hu	Jingling	CWT/CATT
Hu	Tech	Lucent Technologies
Huang	Howard	Lucent Technologies
Hunt	Bernard	Philips
Hwang	Seung-Hoon	LGE
Hwang	Sungoh	Samsung Electronics
Höynck	Andreas	Siemens AG
Ikeda	Shinobu	ETSI
Ito	Kenji	Siemens K.K.
Itoh	Katsutoshi	Sony Corporation
Jechoux	Bruno	Mitsubishi Electric
Jeho	Lee	LG Electronics
Kahtava	Jussi	Nokia-Japan
Kasapidis	Makis	Panasonic
Kawabata	Hisashi	NEC Coporation
Khan	Farooq	Lucent Technologies
Kim	Sung Jin	Digital Comm. Lab
Kim	Jae-Heung	ETRI
Kim	Duk Kyung	SK Telecom
Kinjo	Shigenori	Texas Instruments Japan Ltd
Ko	J P	S K Telecom
Kourtis	Stamatis	Motorola

Family name	First name	Company
Kuo	Wen-Yi	Wiscom Technologies
Kwak	Byung-Jae	Samsung Electronics
Kwak	Yongjun	Samsung Electronics
Kwon	H J	LG Electronics
Lax	Alexander	3Gcom (UK) Ltd
Le Pezennec	Yannick	Vodafone Group
Le Strat	Evelyne	Nortel Networks
Lee	Yuru	Hyundai Electronics
Lee	Hyeonwoo	Samsung
Lee	Ju Hu	Samsung Electronics
Leretaille	Catherine	Nortel Networks
Li	Chenguang	CWT/CATT
Li	Feng	CWT/CATT
Lindberg	Stefan	Ericsson Radio Systems
Love	Robert	Motorola
Lyu	Dugin	LG Electronics
Makihira	Tsuneichi	Mitsubishi Electric
Malmström	Fredrik	Ericsson
Michiaki	Takano	Mitsubishi Electric
Miyoshi	Kenichi	Panasonic
Mochizuki	Takashi	NEC
Monogioudis	Pantelis	Lucent Technologies
Moon	Yong-Suk	Samsung Electronics Co. Ltd
Naito	Kosuke	NEC
Nakamura	Takehiro	NTT DoCoMo Inc
Nguyen	Phong	Nec Australia
Oestreich	Stefan	Siemens AG
Okumura	Yukihiko	NTT DoCoMo Inc
Ovesjö	Fredrik	Ericsson Radio Systems AB
Owoye	Gbenga	Motorola Inc
Pace	Alessandro	Telecom Italia
Parkvall	Stefan	Ericsson Radio Systems AB
Parsa	Kourosh	GBT
Pecen	Mark	Motorola
Perrin	Jean-Hugues	Alcatel BS
Prelorentzos	Nikos	Panasonic
Robion	Wilfrid	Bouygues Telecom
Rudolf	Marian	Mitsubishi Electric
Sampath	Ashwin	Lucent Technologies
Sapienza	Marzia	St Microelectronics
Sato	Masanori	Sony Corporation
Schmidt	Malte	Siemens AG
Schwagmann	Norbert	Siemens AG
Senninger	Christian	Siemens AG
Seung	Hoon Hwang	LG Electronics
Sommer	Magnus	Telia AB
Spaling	Gerke	Ericsson Eurolab
Steudle	Ville	Nokia Ltd
Sung	Lark Kwon	LG Electronics
Sung	Brian	Lucent Technologies
Suzuki	Hidetoshi	Panasonic
Tanaka	Yoshinori	Fujitsu Laboratories Ltd
Tarkiainen	Markku	Nokia Mobile Phones
Tatesh	Said	Lucent Technologies
Terada	Makoto	Rohm LSI Systems
Timiri	Shailender	AT & T Wireless Services
Tjernlund	Nils	Cadence Design Systems
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Tyra	Fryderyk	Interdigital Communications Corp.

Family name	First name	Company
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Verzegnassi	Rodolfo	Philips
Wiedmann	Ralf	Siemens AG
Wilde	Andreas	Ericsson Radio SystemsAB
Willenegger	Serge	Qualcomm Europe
Yang	Guiliang	CWT/CATT
Yellin	Daniel	DSPC
Yellin	Daniel	DSPC
Yoshida	Satoshi	Rohm LSI Systems
Young	Sam Kim	LG Electronics
Young	D Lee	LG Electronics
Yu	Han IL	Samsung Electronics
Zack	Rafael	Intel
Zhang	Sen Lin	BT