Mueller Exhibit 33

TSG-RAN WG1/WG2 joint meeting HSDPA 12A010045
Sophia Antipolis, France, 5 - 6 April 2001

Title: **Approved report of the joint TSG-RAN WG1/WG2 meeting on HSDPA (Sophia Antipolis, France, 5 - 6 April 2001)**
Document for: **Information**
Source: **3GPP support team**

Hans van der Veen
ETSI Mobile Competence Centre
F-06921 Sophia Antipolis Cedex
Tel: +33 4 92 94 42 61
email: Hans.vanderVeen@etsi.fr

23 April 2001.

1 Opening of the meeting

Denis Fauconnier (TSG-RAN WG2 Chairman) welcomed the delegates to ETSI and explained the logistics of the meeting. This meeting was intended to co-ordinate the efforts on HSDPA between WG1 and WG2 now that the Study Item was finished and the work on the Work Item would start.

1.1 Call for IPR

Denis Fauconnier (Chairman) reminded the delegates of their obligations with respect to IPRs, explaining that IPRs should be declared to the Director-General or Chairman of the SDO, not to the WG2 Chairman.

2 Approval of the agenda

12A010001Draft Agenda (Chairman)
Denis Fauconnier (Chairman) proposed the agenda for the meeting.
Decision: The agenda was approved.

3 RAN report and Work Items presentation

12A01003525.950 v4.0.0 (MCC)
This was the approved WG2 TR on HSDPA.
Decision: Section 6.2 would be moved to the new TR on the Work Item. In section 6.4, the fifth bullet would be changed to "may be associated with either DPCH, S-CCPCH or standalone. (which case(s) is/are supported is FFS)". It was clarified that multiple antenna techniques may be used, but this was a physical layer issue that was not needed to be captured in Section 6.4. In bullet with the number 1 (Transport block size), the text would be changed to "semi-static of dynamic (FFS)". With the changes to the fifth bullet and to the bullet number 1, Section 6.4 would also be moved to the new TR.

12A01003625.848 v4.0.0 (MCC)
This was the approved WG1 TR on HSDPA.

The TSG-RAN plenary had approved the TRs, the conclusion of which was that HSDPA was feasible. The general conclusions had been approved, but the detailed recommendations were only noted since the plenary did not want to restrict the work to the techniques discussed for the Study Item.

4 Presentation of proposed HSDPA features

4.1 Requirements and evaluation criteria on HSDPA

12A010018Service Requirements for HSDPA (Vodafone Group)
Alan Law (Vodafone Group) presented this document.
Discussion: It was clarified that conversational was not part of HSDPA. Vodafone believed that the urban environment was expected to be key for the introduction of HSDPA. It was also clarified that the services

mentioned were the ones that Vodafone would like HSDPA to be used for, the ones to focus on (as a priority rather than exclusivity).
Decision: The document was noted.

12A010014Requirements on HSDPA Feature (Ericsson)
Erik Dahlman (Ericsson) presented this document.
Discussion: In addition to the urban environments mentioned in 12A010018, it was recommended by this paper to look into indoor environments also.
Decision: The document was noted.

12A010003Further buffer complexity and processing time considerations on HARQ (Nokia)
Esa Malkamäki (Nokia) presented this document.
Discussion: The proposal intended (as did 12A010014) to make a number of choices in parametrisation of the system (limiting the options).
Decision: The document was noted.

12A010017Outstanding issues with HSDPA (Vodafone Group)
Alan Law (Vodafone Group) presented this document.
Discussion: It was clarified that from a UE point of view the cost would not go down (because Release '99 and Release 4 would continue to need to be supported). A number of outstanding issues were highlighted that still needed to be studied from an operator perspective. It was clarified that a contribution had been presented at the last WG1 meeting on the power amplifier impacts of HSDPA with the conclusion that the same performance amplifier for R'99 should be able to support HSDPA. It was suggested to involve expertise of WG4 to carry out the potential further analysis, addressing issues on the overall impact on the hardware of the Node B, starting from an analysis of re-usability of power amplifiers. WG4 should address the feasibility aspects of 64 QAM from their viewpoint.
Decision: The document was noted. It was agreed to involve WG4 in carrying out the potential further analysis.

Requirements

The following points were agreed (no particular order intended) and would be added as requirements fo the TR in a requirements section:

- Use HSDPA for streaming, background and interactive class, not conversational class;
- Improve system also by reduction of delay;
- Prioritise urban environment (macro/micro), then indoor deployment (pico cells), but not restricted to these;
- Accept features (or group of features) that bring significant incremental gains;
- Limit costs for operators (value per feature....);
- Provide certain features as UE capability parameters, i.e. not all features will be mandatory;
- Limit number of parameters and options;
- Ensure compatibility with advanced antenna and receiver techniques;
- Take into account processing time vs. memory requirements;
- Provide full mobility support, i.e., mobility should be supported for high-speed cases also, but optimisation should be for low-speed to medium-speed scenarios;
- Take into account impact on R'99 network equipments and interfaces, in particular Node B;
- Minimise UE complexity for a given performance;
- Evolve from R'99 instead of revolutionise.

4.2 Simulation assumptions

12A010016Refinement of simulation assumptions for HSDPA capacity evaluation (Vodafone Group)
Yannick LePezennec (Vodafone Group) presented this document.
Discussion: It was clarified that the model used in WG1 so far could be found in the TR 25.848 (subclause 10.3.3). Table 2 was intended as an example only, not as a proposed model. It was stated that '0 km per hour' was difficult to simulate, and that '1 km per hour' would probably show the results that were needed for the 0 km per hour case. It was clarified that the static case needed to be looked at. The detail of how to model that case could be discussed later. The case for '10 users' was understood to model the "more-than-10-users" case while being reasonable to simulate. The refinement of assumptions could be done by experts for the next WG1 meeting. The simulations proposed here were intended to be run in the autumn to see what HSDPA would bring once decisions had been taken. Some of the contents on Table 2 were not really simulation assumptions, but parameters on which no decision had been taken yet.
Decision: The document was noted.

12A010034Fairness Criteria for HSDPA evaluation simulations (Qualcomm Europe)
Serge Willenegger (Qualcomm Europe) presented this document.
Discussion: Neither the C/I method nor the Round Robin method was satisfactory for scheduling. It was commented that RLC (layer 2) should be on top (taking into account RNC and Node B). There were then two repetition layers (if the delay was assumed to be infinite (unrealistic), very nasty looping could follow), which meant that WG2 should first study the interactions. The proposal was not to specify a particular scheduler, but to define the criteria that an allowed scheduler should satisfy for simulation purposes. The scheduler algorithm should ideally be submitted with simulation results to allow experiments to be repeated.
Decision: The document was noted.

Conclusion

- WG2 would evaluate the interactions between RLC and Node B scheduler/retransmission;
- WG2 would define the expected services, e.g. BLER, delay from MAC-HS-DSCH. WG2 would evaluate the requirements on the Node B scheduler. These results will be given to WG1 for further refinement and usage in simulations;
- WG1 and WG2 would define simulation assumptions for their respective parts;
- Simulations would assess the performance benefits of HSDPA as requested in 12A010016. Details were to be discussed;
- Simulations for evaluation of given feature or for comparisons would be decided on a case-by-case basis;
- Whether or not to have RLC in the simulations in the future is f.f.s. Preference would be to do without it in order to simplify simulations.

4.3 Presentations

4.3.1 General

12A010020High Speed Downlink Packet Access (HSDPA) - Overview (Motorola)
Amitava Ghosh (Motorola) presented this document.
Discussion: The regularity in the example on slide 11 was not intended to mean something, it was just an example. It was clarified that the document represented Motorola's view, not TSG-RAN WG1's view.
Decision: The document was noted.

4.3.2 MAC and HS-DSCH model

12A010011MAC architecture model for HSDPA (Siemens)
Christina Gessner (Siemens) presented this document.
Discussion: From a modelling point of view, the functionality could be said to be Layer 3 (and as such be put in the RNC) or Layer 2 (and be put in MAC). It was better to keep the function for Hybrid ARQ separate from that of allocating resources.
Decision: The document was noted. Following the conclusions on the MAC architecture model, a revision was provided in 12A010040.

12A010040MAC architecture model for HSDPA (Siemens)
This document was the update of the MAC architecture model. It was captured in TR 25.855 (21A010042).

12A010026Physical layer model for HSDPA (Ericsson)
Joakim Bergström (Ericsson) presented this document.
Discussion: It was clarified that, although the physical channel could go to more UEs, the logical channels were per UE. The exact contents of the indicator were not intended to be discussed in detail in this meeting. There was a timing issue. Some misunderstanding might be due to the use of the word "flag" (which appeared not to indicate a one-bit toggle in this case). The model was compatible with beamforming if you scheduled one UE at a time. In the model, there was always a dedicated channel. From signalling point of view and usage of channels, there was no difference with Release' 99. The model was for FDD, but could be adapted for TDD to some extent.
Decision: The document was noted. Following the conclusions on the MAC architecture model, a revision was provided in 12A010041.

12A010041Physical layer model for HSDPA (Ericsson)
This document was the update of the Physical layer model. It was captured in TR 25.855 (21A010042).

12A010025TrCH multiplexing (interaction of L1/L2) (Lucent Technologies)
Farooq Khan (Lucent Technologies) presented this document.
Discussion: For what slide 3 (both left and right hand side) apparently tried to achieve, nothing new was needed, since R'99 already supported this. The main difference with 12A010026 (the Ericsson proposal) was that multiple HS-DSCH transport channels per user were proposed, but time-scheduled (they could have different TTI).
Decision: The document was noted.

12A010031Semi-Static Code Space Division of Physical HS-DSCH (Lucent Technologies)
Farooq Khan (Lucent Technologies) presented this document.
Discussion: This was an extension to 12A010025. The preferred mode was the one described in that document, but this extension could be used if necessary. The extension needed more overhead. The main difference with the Motorola proposal was that the information would need to be broadcast, while the Motorola proposal used dedicated channels. It was not entirely clear which would be better from power consumption point of view. It was commented that the issue of dynamic TTIs should be separated. With respect to mapping TFCs and codes in Node B, it was also commented that there might be a misunderstanding of what R'99 allowed. It was not RRC but MAC that managed the code tree. It was stated that the main point of the contribution was on how to devise the control channel signalling. On page 11, 2nd

bullet, a difference with R'99 was the use of "clever rules" (implicit allocation based on what is broadcast). This would allow for example to move part of the code tree without RRC signalling.
Decision: The document was noted.

Conclusion

On MAC architecture model:
- A feedback channel should be indicated directly (figure 3 in 12A010011);
- Resource allocation and Hybrid ARQ would be kept separate in the model;
- The RR handler should be removed;
- For the UE side having more than one DSCH was tbd;
- For now, additional functionality would be "in square brackets";
- A note on the UE Id would be added to say it was tbd.

==> A revision was provided in 12A010040.

On physical layer model:
- One proposal for the physical layer model:
  - There would be an associated DPCH;
  - Two level approach;
- Other proposals would have to be made in May co-located meetings in Pusan;
- After May, select 1 (or several if shown beneficial);
- Multiple HS-DSCH in a CCTrCH or only 1 is ffs;
- One HS-DSCH per CCTrCH in the same TTI.

==> A revision was provided in 12A010041.

On code space division:
- A contribution should be brought to WG2 to describe
  - Usage of the mapping table;
  - Requirements in terms of signalling broadcast;
  - Requirements on the UE;
- The outcome in WG2 would be discussed in the May co-located meetings.

4.3.3 HARQ

12A010015Proposals for HSDPA Feature (Ericsson)
Erik Dahlman (Ericsson) presented this document.
Discussion: There was some confusion on the terminology "synchronous"/"asynchronous". In this contribution "synchronous" was used when the channel number was identified implicitly by the timer.
Decision: The document was noted.

12A010027HARQ requirements (Ericsson)
Johan Torsner (Ericsson) presented this document.
Discussion: The request was to have the section 2 included in the TR. From SDU delay the beginning of the sentence "A low average" would be deleted. Delay variations would be added. Link throughput would be added. In 2.1 he first sentence of the last paragraph would be deleted, and also the first part of the second sentence in that paragraph (so that what was left read "This needs to be considered...".
Decision: The document was noted. With the changes described the requirements (Section 2) would be included in the TR.

12A010030A2IR for HSDPA - hsdpa features, high level presentation (Lucent Technologies)
Farooq Khan (Lucent Technologies) presented this document.
Discussion: With respect to gains, the capacity for the whole system should be looked at.
Decision: The document was noted.

12A010013Quad-channel Stop and Wait HARQ in TDD Mode (Siemens)
Thomas Stadler (Siemens) presented this document.
Discussion: It was commented in general that FDD and TDD should be as aligned as possible. This was qualified as being valid mainly for Iub and RNC, and UE memory complexity.
Decision: The document was noted.

Conclusion

- The protocol would be worked on in WG2 and when some more decisions had been taken there, the results would be discussed with WG1 in the May meeting;
- WG1 could meanwhile work on the complexity performance and layer 1 overhead aspects;
- FDD and TDD should be as aligned as possible mainly for Iub and RNC, and UE memory complexity. To what extent alignment in the Node B (e.g. MAC) was necessary needed to be discussed;
- Proposals for Hybrid ARQ needed to be submitted latest for the May meeting.

4.3.4 SIG

12A010005HSDPA related signaling parameters in downlink (Nokia)
Esa Malkamäki (Nokia) presented this document.
Discussion: The following table was proposed in the contribution:

Table 1: Summary of HS-DSCH related parameters in downlink.

Parameter	Before the HSDSCH data packet			Simultaneously with HSDSCH data packet		
	Min	Prop	Max	Min	Prop	Max
UE identification	1	1	16	-	-	-
MCS	2	2	3	-	-	-
HS-DSCH power level	0	0	n	-	-	-
Code channels	0	2	8	-	4	-
FHARQ process #	-	-	-	0	2	2
FHARQ redundancy version	-	-	-	0	0	2
FHARQ packet number	-	-	-	2	6	12
~~Signaling info~~	-	-	-	~~0~~	~~1~~	~~1~~
Power offset for uplink	-	-	-	0	2	4
Total	3	5	27+n	2	15	21

There were comments on the last two parameters. It was agreed to delete "Signaling info" because it was very confusing. What should be part of TFCI and what part of other signalling was for further study. The table needed to be reviewed.
Decision: The document was noted. An empty version of this table would be included in the TR and all proposals would show how they proposed to fill out that table.

12A010010Signalling Requirements for HSDPA in TDD mode (Siemens)
Christina Gessner (Siemens) presented this document.

Discussion: It would be better to have a list of semantical information, similar to 12A010005. Exactly which messages etc. was too much detail at this stage. It was also better to separate uplink and downlink. For TDD-specific things, the semantic information could always be indicated as "TDD only" if it was not possibile to use the same for FDD and TDD. It was clarified that "TDD" always applied to both 3.84 Mcps and 1.28 Mcps, unless specifically stated otherwise.
Decision: The document was noted. A revision would be provided to WG2.

12A010028Variable DL channel condition feedback rate for HSDPA (SONY Corporation)
Katsutoshi Itoh (SONY Corporation) presented this document.
Discussion: To make clear it was not the measurement report, it would be called measurement feedback. A table was needed for the uplink signalling. Two cases needed to be studied: with or without measurement feedback. ACK/NACK would be in the table also. Measurement feedback rate might be fixed or determined by upper layers. The TDD parameters needed to be added as well. All this would be covered in the TR.
Decision: The document was noted. The relevant parts would be covered in the TR as described above.

12A010006DL control channel structures for parameters sent before HS-DSCH TTI (Nokia)
Esa Malkamäki (Nokia) presented this document.
Decision: The document was noted. This would be handled in WG1.

12A010007DL control channel structures for parameters sent simultaneously with HS-DSCH TTI (Nokia)
Esa Malkamäki (Nokia) presented this document.
Decision: The document was noted. This would be handled in WG1.

12A010012Signalling and Data Transfer for HSDPA in TDD Mode: Modelling of Layer1/Layer2 interface (Siemens)
Fariba Raji (Siemens) presented this document.
Discussion: It was asked why a specific primitive was introduced, since FACH could transport anything and the only important thing was the Layer1/Layer2 interface (transport channel was independent of what happened above). It was explained that it looked like FACH, but that there were some important differences. If a new physical channel was needed, more evidence was needed to prove that it could not be done by an existing physical channel.
Decision: The document was noted. It would be captured in the TR that a new physical channel might be needed for TDD HSDPA (and add that it was TBD).

12A010019Physical Layer Considerations for the Signalling Channels associated to the HS-DSCH in TDD (Siemens)
Olaf Pollakowski (Siemens) presented this document.
Discussion: It was better to show why changes to the existing situation were needed. This would also help in getting support for changes (this comment was generally valid, not simply for this contribution). If provided in such a way, WG2 could discuss the issue better. Comments could be provided to Siemens directly.
Decision: The document was noted.

4.3.5 TTI

12A010023Variable TTI for HSDPA - hsdpa features, high level presentation (Lucent Technologies)
Ashok Rudrapatna (Lucent Technologies) presented this document.

Discussion: Multi-user-diversity referred to scheduling gains.
Decision: The document was noted.

12A010002HSDPA Transport channel data rate granularity with fixed TTI length (Nokia)
Esa Malkamäki (Nokia) presented this document.
Discussion: Comments were provided in 12A010037.
Decision: The document was noted.

12A010037Comments on HSDPA variable TTI contribution (Lucent Technologies)
Nandu Gopalakrishnan (Lucent Technologies) presented this document.
Discussion: This was commenting on 12A010002. It was clarified that the proposal of 64QAM would be an optional feature.
Decision: The document was noted. Incremental vs. Chase would be handled in WG1. Asynchronous operation would be studied as part of Hybrid ARQ in WG2. Variable TTI was an addition to the semi-static TTI which needed to be supported by the standard. Its merits compared to semi-static would need to be shown as an incremental gain in WG1 and WG2. Both groups would resynchronise on the subject in the co-located meeting in Pusan in May.

12A010015Proposals for HSDPA Feature (Ericsson) (see 4.3.3)

12A010039Discussion on TTI parametrisation (Nortel Networks)
Evelyne Le Strat (Nortel Networks) presented this document.
Discussion: The idea of semi-static was to have one value for 10 ms and one value for lower than 10 ms. The exact optimum needed to be studied. The document proposed not to use variable TTI.
Decision: The document was noted. More contributions were invited. The choice of one fixed, two semi-static or multiple semi-static values was left open for now.

4.3.6 Downlink CChannel

12A010021Control Channel Structure for HS-DSCH (Motorola)
Amitava Ghosh (Motorola) presented this document.
Discussion: The term "scrambling" code should have been "channelisation" code. One code for each user would result in spreading gain. The "shared dedicated" channel indicated a shared channel that was dedicated for a short period of time (with associated possibility of power control, beamforming etc.). It was asked how many users would typically be DCH+DSCH "state". The reason for that was that if the number was 128, this would eat something like 25% of the codes and a more efficient way might be needed, but if it was 32 or 64, the amount of codes necessary was negligible. It was clarified that the proposal was based on a two level approach (as described in agenda item 4.3.2).
Decision: The document was noted.

12A010029Discussion on TFCI for E-DSCH (Panasonic)
Hidetoshi Suzuki (Panasonic) presented this document.
Discussion: Method 1 was acknowledged not to work. The Motorola and Ericsson proposals could more or less be mapped on Method 3, although it could also be said that the Motorola proposal was Method 2. A Nokia proposal was a mixture of Method 2 and Method 3.
Decision: The document was noted.

12A010024HS-DSCH timing considerations (signalling) (Lucent Technologies)
Farooq Khan (Lucent Technologies) presented this document.
Discussion: Following earlier discussion, the proponent thought it would be worthwhile investigating the one level approach as well, though this document was based on the two level approach. The time between the scheduling decision and the actual moment that it can be sent had been investigated by Nokia and was in the order of 3 slots (2 ms) minimum (which would be difficult for the UE).
Decision: The document was noted.

Summary

- Two step approach:

	On DPCH	On DSCH CC	DSCH C Channel	
Method A	1 bit	TFCI	1 CDM, N UE per TTI	
Method B	Pointer to the "dedicated" DSCH control channel	TFCI	N (8) CDM channels, 1 per UE per TTI	
Method C	Part of TFCI	Part of TFCI	1 CDM, N UE per TTI	

- Candidates for contents on DSCH CC
  - TFCI;
  - Scheduling (RR allocation) info;
  - HARQ info.

- The delay assumption between the scheduling decision and sending on block on HS-DSCH was a minimum of 3 slots, but because of processing time in UE, encoding of indicators, and advanced receivers, more was expected.

- The main (possibly conflicting) aspects to take into account when taking a decision on the signalling:
  - Delay;
  - Robustiness of signalling;
  - Amount of signalling allowed;
  - UE complexity (processing time).

- WG2 would provide some requirements to WG1 and WG1 would further discuss this in the May meeting before the next joint meeting with WG2.

4.3.7 Uplink CChannel

12A010008HSDPA signaling in uplink (Nokia)
Esa Malkamäki (Nokia) presented this document.
Discussion: There was a question on whether the reference to CPICH SIR was intentional. In clarification, it was explained that a Study Item to re-introduce SIR had been approved at the TSG-RAN plenary. The issue was open for discussion.
Decision: The document was noted. More consideration time was needed before conclusions could be drawn.

12A010009Uplink channel structure for HSDPA (Samsung)
This document was withdrawn.

4.3.8 RLC

12A010033RLC operation with HSDPA (Nokia)
There was no time left to handle this document. It could be brought directly to the relevant WG (WG2).

4.3.9 AMC

12A010015Proposals for HSDPA Feature (Ericsson) (see 4.3.3)

12A010038Enhanced Symbol Mapping method for the modulation of Turbo-coded bits based on bit priority (Samsung)
This document was replaced by 12A010044.

12A010044Enhanced Symbol Mapping method for the modulation of Turbo-coded bits based on bit priority (Samsung)
Hunkee Kim (Samsung) presented this document.
Discussion: The contribution contained a lot of details and would be handled in WG1 directly. Questions could, however, be addressed to Samsung.
Decision: The document was noted. This would be studied further in WG1.

4.3.10 FCS

12A010004Simulations on FCS benefits (Nokia)
There was no time left to handle this document. It could be brought directly to the relevant WG (WG1). There was a specific SI for this issue.

4.3.11 MIMO

12A010022Impact of MIMO Technology in HSDPA (Lucent Technologies)
There was no time left to handle this document. It could be brought directly to the relevant WG (WG1). There was a specific WI for this issue.

4.3.12 RECAP

12A010032Rel'5 HSDPA considerations (Nokia)
This document was replaced by 12A010043.

12A010043Rel'5 HSDPA considerations (Nokia)
Decision: The document was noted.

5 Physical layer model, and services to upper layers

Because the meeting had been handled somewhat differently from the original intention, all contributions were handled in other (subclauses).

6 Conclusions and way forward in RAN1 and RAN2

12A010042Draft TR 25.855 v0.0.1 on High Speed Downlink Packet Access (Rapporteur)
Ravi Kuchibhotla (Rapporteur) presented this document.
Discussion: The TDD parameters were missing. A note needed to be added that the signalling requirements might not be complete. References were missing. It would be added that a new physical channel might be needed for TDD (tbd). The sentence below figure 2 would be deleted.
Decision: The document was noted. Comments could be provided until Monday midnight Pacific time and the report would be considered endorsed after that.

7 Any other business

There was no input for this agenda item.

8 Closing of the meeting

Denis Fauconnier (Chairman) closed the meeting and thanked the delegates for their work and attendance. A follow-up joint meeting between WG1 and WG2 would be held during the co-located May meeting (Pusan). WG4 also steed needed to do some work (for instance on 64QAM). A reminder would be sent to them.

Annex A: List of delegates (attendees)

Mr. Mirko Aksentijevic
NOKIA Corporation
P.O Box 301
FIN 00045 Nokia Group
Linnoitustie 6
FI - 00045 ESPOO
Internet address: mirko.aksentijefic@nokia.com
X400 address:
Tel : +358 9 511 388 29
Fax : +358 9 511 384 52
Mobile : +358 40 707 1427

Ms. Ban Al -Bakri
MOTOROLA S.A.
ABS - Azur Business Services
Les Algorithmes - Bât. Aristote A
2000, Route des Lucioles - BP 29
FR - 06921 Sophia Antipolis Cédex
Internet address: ban.al-bakri@motorola.com
X400 address:
Tel : + 33 4 92 94 47 19
Fax : + 33 4 93 95 80 52
Mobile : +33 6 03 60 28 88

Mr. Byron Bakaimis
SAMSUNG Electronics
The Communication House
South Street
GB - STAINES TW18 4QE
Internet address: byronbak@aol.com
X400 address:
Tel : +44 (0) 1784 428 600
Fax : +44 (0) 1784 428 629
Mobile : +44 (0) 7799 8977 59

Mr. Matthew Baker
Philips Electronics UK Ltd.
Cross Oak Lane
Redhill
GB - SURREY RH1 5HA
Internet address: bakermp2@prl.research.philips.com
X400 address:
Tel : +44 1293 815287
Fax : +44 1293 815493
Mobile :

Mr. Stephen Barrett
MOTOROLA Ltd
16 Euroway
Blagrove, Swindon
GB - WILTSHIRE SN5 8YQ
Internet address: sbarret1@ecid.cig.mot.com
X400 address:
Tel : +44 1793 566217
Fax : +44 1793 566225
Mobile :

Mr. Per Beming
ERICSSON L.M.
Torshamnsgatan 23
SE - 16480 STOCKHOLM
Internet address: per.beming@era.ericsson.se
X400 address:
Tel : +46 8 404 4681
Fax : +46 8 757 5720
Mobile : +46 70 376 22 52

Mr. Joakim Bergström
Ericsson Radio System AB
Torshamnsgatan 23
Tel : +46 8 404 7396
Fax : +46 8 757 5720
Mobile :

Kista
SE - 164 80 Stockholm
Internet address: joakim.bergstrom@era.ericsson.se
X400 address:

Mr. Jens Berkmann
INFINEON TECHNOLOGIES
P.O. Box 80 09 49
DE - 81609 MUNICH
Internet address: jens.berkmann@infineon.com
X400 address:
Tel : +49 89 234 84214
Fax : +49 89 234 713 017
Mobile :

Dr. Hai Bi
CATT

CN -
Internet address: bih@catt.ac.cn
X400 address:
Tel : +8610-62304422ext208
Fax : +8610-62303127
Mobile :

Mr. Nicolas Billy
ALCATEL France
33, rue Emeriau
FR - 75725 PARIS Cedex
Internet address: nicolas.billy@alcatel.fr
X400 address:
Tel : +33 1 30 77 30 54
Fax : +33 1 30 77 94 30
Mobile :

Dr. Josef Blanz
QUALCOMM EUROPE S.A.R.L.
QUALCOMM International Germany
Airport Business Centre
Am Söldnermoos 17
DE - 85399 München-Hallbergmoos
Internet address: jblanz@qualcomm.com
X400 address:
Tel : +49 89 607 843
Fax : +49 89 607 858
Mobile : +33 6 88382023

Ms. Sarah Boumendil
NORTEL NETWORKS (EUROPE)
19 avenue du centre
FR - 78928 Montigny le Bretonneux
Internet address: boumendi@nortelnetworks.com
X400 address:
Tel : +33 1 39 44 58 16
Fax : +33 1 39 44 52 52
Mobile : +33 685 74 32 82

Mr. Frank Burkert
SIEMENS AG
OEN MB
Hofmannstrasse 51
DE - 81359 MUENCHEN
Internet address: Frank.Burkert@Mch.Siemens.DE
X400 address:
Tel : +498972254344
Fax : +498972246489
Mobile :

Mr. Jean-Xavier canonici
INFINEON TECHNOLOGIES
P.O. Box 80 09 49
DE - 81609 MUNICH
Internet address: jean-xavier.canonici@infineon.com
X400 address:
Tel : +33-492383791
Fax : +33-(0)492383676
Mobile :

Mr. Ginkyu Choi
Samsung Electronics Co.,Ltd
San#14
Nongseo-Ri
Kiheung-Eup
Yongin-City
KR - 449-900 Kyunggi-Do
Internet address: gkchoi@bear.telecom.samsung.co.kr
X400 address:
Tel : +82 31 280 1960
Fax : +82 31 280 1975
Mobile : 011 714 8321

Mr. Mark Cudak
MOTOROLA Ltd
IL02/2928
1301 E Algoquin Rd.
USA-IL 60196 SCHAUMBURG
Internet address: amc005@email.mot.com
X400 address:
Tel : +1 847 576 2375
Fax : +1 847 538 8378
Mobile :

Dr. Erik Dahlman
Ericsson Inc.

US -
Internet address: erik.dahlman@era.ericsson.se
X400 address:
Tel : +46 8 764 13 77
Fax : +46 8 585 314 80
Mobile : +46 70 677 6705

Mrs. Rossella De Benedittis
SIEMENS ICN S.p.A
Cascina di Castelletto
IT - 20019 SETTIMO MILANESE
Internet address: Rossella.DeBenedittis@SIEMENS-ICN.IT
X400 address:
Tel : +39 024 388 2209
Fax : +39 024 388 3395
Mobile :

Mr. Guillaume Decarreau
France Telecom
France Telecom R&D
38-40 rue du Général Leclerc
FR - 92794 ISSY MOULINEAUX CEDEX
Internet address: guillaume.decarreau@francetelecom.com
X400 address:
Tel : +33 1 45 29 58 99
Fax : +33 1 45 29 41 94
Mobile :

Mr. Thierry Dérand
Mitsubishi Electric Co.
8-1-1 Tsukaguchi-Honmachi
Amagasaki-shi
JP - 661 8661 HYOGO
Internet address: derand@merl.com
X400 address:
Tel : +1 908-665-1200
Fax : +1 908-665-2411
Mobile :

Dr. Steve Dick
INTERDIGITAL COMMUNICATIONS
InterDigital Communications Corp.
2 Huntington Quadrangle
3rd Floor
South Wing
US - 11747 MELVILLE
Tel : +1 631 622 4001
Fax : +1 631 622 0100
Mobile :

Internet address: steve.dick@interdigital.com
X400 address:

Mr. Jean Dumazy
PHILIPS CONSUMER COMMUNICATION
Route d'Angers
FR - 72081 LE MANS CEDEX 9
Internet address: jean.dumazy@philips.com
X400 address:
Tel : +33 2 43 18 48 08
Fax : +33 2 43 41 18 18
Mobile :

Mr. Denis Fauconnier
NORTEL NETWORKS (EUROPE)
1 Place des Freres Montgolfier
BP 50
FR - 78928 YVELINES CEDEX 9
Internet address: dfauconn@nortelnetworks.com
X400 address:
Tel : +33 1 39 44 52 87
Fax : +33 1 39 44 50 12
Mobile : +33 06 85 74 35 29

Mr. Patrick FISCHER
ALCATEL France
33, rue Emeriau
FR - 75725 PARIS Cedex
Internet address: patrick.fischer@alcatel.fr
X400 address:
Tel : +33169634335
Fax : +33169634360
Mobile :

Mr. Paul Etienne Folacci
TEXAS Instruments
BP 5
FR - 06271 VILLENEUVE LOUBET cede
Internet address: p-folacci@ti.com
X400 address:
Tel : +33 4 93 22 28 97
Fax : +33 4 93 22 27 40
Mobile :

Mr. Dirk Gerstenberger
ERICSSON L.M.

ERICSSON Radio Systems AB
SE - 16480 STOCKHOLM
Internet address: dirk.gerstenberger@era.ericsson.se
X400 address:
Tel : +46 58 533 901
Fax : +46 8 508 79600
Mobile :

Ms. Christina Gessner
SIEMENS AG
Siemensdamm 62
DE - 13623 BERLIN
Internet address: christina.gessner@icn.siemens.de
X400 address:
Tel : +49 30 386 33346
Fax : +49 30 386 25548
Mobile :

Mr. Irfan Ghauri
Eurécom
Institut Eurécom
2229 route des Crêtes
B.P. 193
FR - 06904 Sophia Antipolis cedex
Internet address: alax@cellular3g.com
X400 address:
Tel : +33 4 93 00 26 39
Fax : +33 4 93 00 26 27
Mobile : +33 (0)6 17 13 42 38

Dr. Amitabha Ghosh
Motorola Inc.
1501 West. Shure Drive
Arlington Heights
US - 60004 ILLINOIS
Internet address: ga0047@email.mot.com
X400 address:
Tel : +1 847 632 4121
Fax : +1 847 435 0789
Mobile :

Mr. Nandu Gopalakrishnan
Lucent Technologies, Inc.
67 Whippany Road, 14C-327
US - 07981 WHIPPANY (NJ)
Internet address: ngopal@lucent.com
X400 address:
Tel : +01-973-884-6477
Fax : +01-973-386-2651
Mobile :

Mr. Wolfgang Granzow
ERICSSON Eurolab
R&D Radio Communication
Nordostpark 12
DE - 90411 NÜRNBERG
Internet address: wolfgang.granzow@eed.ericsson.se
X400 address:
Tel : +49 911 5217 308
Fax : +49 911 5217 950
Mobile :

Mr. Marc Griguer
France Telecom
France Telecom R&D
38-40 Rue Général Leclerc
FR - 92131 Issy-les-Moulineaux
Internet address: marc.griguer@francetelecom.fr
X400 address:
Tel : +33 1 45 29 55 42
Fax : +33 1 45 29 64 40
Mobile :

Mr. Francesco Grilli
QUALCOMM EUROPE S.A.R.L.
Les Algorithmes, Aristote B
2000 route des Lucioles
BP 126
FR - 06903 SOPHIA ANTIPOLIS CEDEX
Internet address: fgrilli@qualcomm.com
X400 address:
Tel : +1 858 865 3742
Fax :
Mobile :

Mr. Christoph Herrmann
PHILIPS GmbH
Philips Research
Weisshausstr. 2
PO BOX 500145
DE - 52085 AACHEN
Internet address: christoph.herrmann@philips.com
X400 address:
Tel : +49 241 600 3577
Fax : +49 241 600 3519
Mobile :

Dr. Volker Hoehn
MANNESMANN Mobilfunk GmbH
TEB
Am Seestern 1
DE - 40543 DÜSSELDORF
Internet address: volker.hoehn@d2vodafone.de
X400 address:
Tel : +49 211 533 3637
Fax : +49 211 533 2834
Mobile : +49 17224 03326

Dr. Henry Horng
Mitsubishi Electric Co.
8-1-1 Tsukaguchi-Honmachi
Amagasaki-shi
JP - 661 8661 HYOGO
Internet address: horng@merl.com
X400 address:
Tel : +1 908-665-1200
Fax : +1 908-665-2411
Mobile :

Mrs. Jinling Hu
CATT
CATT
Xue Yuan road N°40
Hai Dian district
CN - 100083 Beijing
Internet address: hujl@tdscdma.com
X400 address:
Tel : +86 10 623044662173
Fax : +86 10 62304701
Mobile :

Dr. Naoto Ishii
NEC Corporation
Mita Kokusai Bldg
1-4-28,Mita
Minato-ku
JP - 108-0073 TOKYO
Internet address: naoto_ishii@da.jp.nec.com
X400 address:
Tel : +81 45 939 2672
Fax : +81 45 939 2713
Mobile :

Mr. Katsutoshi Itoh
SONY Corporation
1-8-15, Konan,
Minato-ku
JP - 108 TOKYO
Internet address: kitoh@wtlab.sony.co.jp
X400 address:
Tel : +81 3 5782 5199
Fax : +81 3 5782 5213
Mobile :

Mr. Bruno Jechoux
MITSUBISHI Electric Telecom
Immeuble Germanium
8 Avenue des Buttes de Coesmes
FR - 35700 RENNES
Internet address: jechoux@tcl.ite.mee.com
X400 address:
Tel : +33 2 99 84 26 10
Fax : +33 2 99 84 21 15
Mobile :

Dr. Alan Jones
IPWireless Inc.
4 Lansdowne Court
Bumpers Way
GB - Chippenham SN14 6RZ
Internet address: ajones@ipwireless.com
X400 address:
Tel : +44 1249 705400
Fax : +44 1249 705401
Mobile :

Dr. Raafat Kamel
Wiscom Technologies Inc.
100 Walnut Ave.
Suite 200
US - 07066 CLARK
Tel : +732 340 0679
Fax : +732 340 9566
Mobile :

Internet address: rkamel@wiscomtech.com
X400 address:

Dr. Makis Kasapidis
MATSUSHITA COMMUNICATION
Daytona Drive, Colthrop
Thatcham
GB - BERKSHIRE RG19 4ZD
Tel : +44 1635 875528
Fax : +44 1635 871345
Mobile : +44 77 85 300414
Internet address: makis.kasapidis@mci.co.uk
X400 address:

Dr. Farooq Khan
Lucent Technologies
263 Shuman bvld
US - 60540 Naperville
Tel : +1 732 949 5984
Fax : +1 732 949 1504
Mobile :
Internet address: fkhan1@lucent.com
X400 address:

Mr. Bonghoe Kim
LG Electronics Inc.
533 Hogye-dong, Dongon-ku
Anyong-shi
KR - KYUNGK-DO
Tel : +82-31-450-2945
Fax : +82-31-450-7912
Mobile :
Internet address: bong@lgic.co.kr
X400 address:

Dr. Hunkee Kim
Samsung Electronics Co., Ltd
Suwon P.O Box 105
,
KR - 440 600 Kyung-ki-Do
Tel : +82-31-280-1970
Fax : +82-31-280-1975
Mobile :
Internet address: hunkee_kim@samsung.com
X400 address:

Mr. Ravi Kuchibhotla
MOTOROLA Ltd
1501 W. Shure Dr.
US - IL 60004 ARLINGTON HEIGHTS
Tel : +1 847 632 3577
Fax :
Mobile :
Internet address: ravi.kuchibhotla@motorola.com
X400 address:

Mr. Hyuck Chan Kwon
LG Electronics Inc.
533 Hogye-dong, Dongon-ku
Anyong-shi
KR - KYUNGK-DO
Tel : +82-31-450-7129
Fax : +82-31-450-7912
Mobile :
Internet address: durer@commsys.yonsei.ac.kr
X400 address:

Mr. Alan Law
VODAFONE Group Plc
The Courtyard
2-4 London Road, Newbury
GB - BERKSHIRE RG14 1JX
Tel : +44 1635 676470
Fax : +44 1635 234895
Mobile :
Internet address: alan.law@vf.vodafone.co.uk
X400 address:

Ms. Tania Le Goff
NORTEL NETWORKS (EUROPE)
Nortel Networks (Europe)
19 avenue du Centre
FR - 78928 Montigny le Bretonneux
Internet address: tlegoff@nortelnetworks.com
X400 address:
Tel : +33 1 39 44 3775
Fax : +33 1 39 44 5252
Mobile :

Mr. Yannick Le Pezennec
VODAFONE Group Plc
The Courtyard
2-4 London Road
GB - NEWBURY RG14 1JX
Internet address: yannick.lePezennec@vf.vodafone.ud.uk
X400 address:
Tel : +44 1635 685 870
Fax : +44 1635 673 969
Mobile : +44 774 893 8886

Ms. Evelyne Le Strat
NORTEL NETWORKS (EUROPE)
CT111/ 1, Place des Frères Montg
olfier
GUYANCOURT
FR - 78928 YVELINES CEDEX 9
Internet address: elestrat@nortelnetworks.com
X400 address:
Tel : +33 1 39 44 53 39
Fax : +33 1 39 44 50 12
Mobile : +33 6 85 74 39 63

Mr. Kook-Heui Lee
Samsung Electronics Co., Ltd
12th El., Samsung Plaza Blg.,
263 Seohyen-Dong, Bundang-Gu,
Sungnam-Si,
KR - 440 600 Kyungki-Do
Internet address: kh-lee@samsung.com
X400 address:
Tel : +82 31 779 6807
Fax : +82 31 779 8003
Mobile :

Mr. Ju Ho Lee
Samsung Electronics Co., Ltd
12th El., Samsung Plaza Blg.,
263 Seohyen-Dong, Bundang-Gu,
Sungnam-Si,
KR - 440 600 Kyungki-Do
Internet address: juholee@samsung.com
X400 address:
Tel : +82 342 779 6818
Fax : +82 342 779 6829
Mobile :

Mr. Jinsock Lee
Telecom Modus Ltd.
Cleeve Road
GB - Leatherhead, Surrey KT22 7S
Internet address: jinsock.lee@t-modus.nec.co.uk
X400 address:
Tel : +44 1372 804 880
Fax : +44 1372 804 804
Mobile :

Mrs. Catherine Leretaille
NORTEL NETWORKS (EUROPE)
1 Place des Frères Montgolier
BP 50
FR - 78042 Guyancourt Cedex
Tel : +33 1 39 44 57 47
Fax : +33 1 39 44 52 52
Mobile : +33 6 85 74 39 63

Internet address: leretail@nortelnetworks.com
X400 address:

Mr. Feng Li
CATT

Xue Yuan Rd 40#
3G TDD Group
CN - 100083 Beijing
Internet address: lifeng@pub.tdscdma.com
X400 address:

Tel : +86-10-62304466-2150
Fax : +86-10-62303123
Mobile :

Dr. Ke Li
SIEMENS AG
SIEMENS Ltd
ICM N R&D TD-SCDMA
11 F Wangjing Mansion
#9 Wangjing Zhonghuan Nanlu
CN - 100102 Beijing
Internet address: ke.li@pek1.siemens.com.cn
X400 address:

Tel : +8610 64721888e8924
Fax : +8610 64720717
Mobile :

Mr. Rickard Ljung
TELIA AB
Box 85
SE - 20120 Malmö
Internet address: rickard.m.ljung@telia.se
X400 address:

Tel : +46 40 10 51 40
Fax : +46 40 30 70 29
Mobile :

Mr. Matteo Magotti
OMNITEL
Via G. Jervis, 13
IT - 10015 IVREA (TO)
Internet address: matteo.magotti@omnitel.it
X400 address:

Tel : +39 0125 624 628
Fax : +39 0125 624 734
Mobile :

Dr. Esa Malkamaki
NOKIA Corporation
P.O. Box 407
FI - 00045 ESPOO
Internet address: esa.malkamaki@nokia.com
X400 address:

Tel : +358-40-7038150
Fax : +358-718036858
Mobile :

Mr. Peter Malm
ERICSSON L.M.
ERICSSON LM
Kista
SE - 12625 STOCKHOLM
Internet address: peter.malm@ecs.ericsson.se
X400 address:

Tel : +46 46 194482
Fax : +46 46 193455
Mobile :

Mr. Axel Meiling
SIEMENS AG
SIEMENS AG
Siemensdamm 62
DE - 13623 BERLIN

Tel : +49 30 386 33376
Fax : +49 30 386 28099
Mobile :

Internet address: axel.meiling@icn.siemens.de
X400 address:

Mr. Juha Mikola
NOKIA Corporation
P.O. Box 407
FI - 00045 NOKIA GROUP
Tel : +358 40 749 9269
Fax : +358 9 4376 6850
Mobile :
Internet address: juha.mikola@nokia.com
X400 address:

Mr. Marc Montserrat
INFINEON TECHNOLOGIES
P.O. Box 80 09 49
DE - 81609 MUNICH
Tel : +33 492 38 36 63
Fax : +33 492 38 36 76
Mobile :
Internet address: Marjorie.spehler@infineon.com
X400 address:

Mr. Yong-Suk Moon
Samsung Electronics Co., Ltd
San#19 Vongseo-ri
Kiheung-Eup
Yongin-city
KR - 440 900 Kyungki-Do
Tel : +82 31 280 1966
Fax : +82 31 280 1975
Mobile :
Internet address: ysmoon@samsung.com
X400 address:

Mr. Jens Mueckenheim
Lucent Technologies
Network Systems GmbH
Thurn-und-Taxis-Str. 10
DE - 90411 NUREMBERG
Tel : +49 91 15 26 2842
Fax : +49 91 15 26 4990
Mobile :
Internet address: jmueckenheim@lucent.com
X400 address:

Mr. Giulio Muzzarelli
ERICSSON L.M.
Ericsson Telecommunicazioni s.p.a
Vimodrome
IT - 20090 MILAN
Tel : +39 02 26594524
Fax : +39 02 26594580
Mobile :
Internet address: giulio.muzzarelli@tei.ericsson.se
X400 address:

Mr. Yosi Nacson
MORPHICS TECHNOLOGY Inc.
532 Broadhollow Rd ste 116
US - 11747 3909 MELVILLE NY
Tel : +1 631-439-1984
Fax : +1 631 465-7444
Mobile :
Internet address: yosi@morphics.com
X400 address:

Dr. Ayman Naguib
MORPHICS TECHNOLOGY Inc.
675 Campbell Technology Parkway
Suite 100
US - CA 95008 Campbell CALIFORNI
Tel : +1 408-879-3296
Fax : +1 408-369-7210
Mobile :
Internet address: naguib@morphics.com
X400 address:

Mr. Takehiro Nakamura
NTT DoCoMo Inc.
NTT DoCoMo R&D Center
3-5 Hikarinooka,
Yokosuka-shi
JP - 239-8536 Kanagawa
Internet address: takehiro@wsp.yrp.nttdocomo.co.jp
X400 address:
Tel : +81 468 40 3190
Fax : +81 468 40 3840
Mobile :

Mr. Makoto Natori
SONY Corporation
1-8-15, Konan,
Minato-ku
JP - 108 TOKYO
Internet address: natori@wtlab.sony.co.jp
X400 address:
Tel : +81 3 5782 5199
Fax : +81 3 5782 5213
Mobile :

Mr. Patrick Nickel
PHILIPS GmbH
Fernmeldewerk Bautzen
Postfach 1149
DE - 02601 BAUTZEN
Internet address: patrick.nickel@philips.com
X400 address:
Tel : +49 241 6003 576
Fax : +49 241 6003 519
Mobile :

Mr. Andreas Otte
SIEMENS AG
John-F-Kennedy strasse 43-53
DE - D 38228 Salzgitter-Lebensted
Internet address: andreas.otte@sal.siemens.de
X400 address:
Tel : +49 53 41 906 1816
Fax : +49 5341 906 2011
Mobile :

Mr. Kourosh Parsa
GOLDEN BRIDGE TECHNOLOGY INC.
185 Route 36
US - NJ 07764 WEST LONG BRANCH
Internet address: kpgbt@aol.com
X400 address:
Tel : +1 732 728 9627
Fax : +1 732 870 9008
Mobile :

Dr. Olaf Pollakowski
SIEMENS AG
Siemensdamm 62
DE - O 13623 BERLIN
Internet address: olaf.pollakowski@icn.siemens.de
X400 address:
Tel : +49 30 386 32928
Fax : +49 30 386 25548
Mobile :

Dr. Marcus Purat
SIEMENS AG
Siemensdamm 62
DE - D 13623 BERLIN
Internet address: marcus.purat@icn.siemens.de
X400 address:
Tel : +49 30 386 25367
Fax : +49 30 386 25548
Mobile :

Ms. Fariba Raji
SIEMENS AG
Tel : +49 30 386 35862
Fax : +49 30 386 33341

ICHN
Siemensdamm 62
DE - 13627 BERLIN
Internet address: fariba.raji@icn.siemens.de
X400 address:
Mobile :

Mr. Dong-Wook Rho
LG Electronics Inc.
533 Hogye-dong, Dongon-ku
Anyong
KR - 431-080 KYUNGK-DO
Internet address: dwrh@lgic.co.kr
X400 address:
Tel : +82 31 450 2908
Fax : +82 31 450 2945
Mobile :

Dr. Ashok Rudrapatna
Lucent Technologies
67 Whippany Road
room 15H-222
US - NJ 07920 WHIPPANY
Internet address: arudrapatna@lucent.com
X400 address:
Tel : +1 973-386-7730
Fax : +1 973-386-7730
Mobile :

Mr. Ashwin Sampath
Lucent Technologies
Dept. VNU
Thurn-und-Taxis-Str. 10
DE - 90411 NURNBERG
Internet address: asampath@lucent.com
X400 address:
Tel : +1 732 949 8019
Fax : +1732 949 1504
Mobile :

Mr. Norbert Schwagmann
SIEMENS AG
John F. Kennedy Str 43-53
DE - D 38228 SALZITTER
Internet address: norbert.schwagmann@sal.siemens.de
X400 address:
Tel : +49 5341 906 1821
Fax : +49 5341 906 2011
Mobile :

Mr. Eiko Seidel
PANASONIC Deutschland GmbH
A Division of Panasonic Europe
Monzastr. 4c
DE - 63225 LANGEN
Internet address: seidel@panasonic.de
X400 address:
Tel : +49 6103 766 160
Fax : +49 6103 766 144
Mobile :

Dr. PARK SeongSoo
SK Telecom
9-1, Sunae-dong,
Pundang-gu,
Sungnam-city
KR - 463-784 Kyunggi-do
Internet address: seongsoo@sktelecom.com
X400 address:
Tel : +82-31-710-5286
Fax : +82-31-710-5109
Mobile :

Mr. Thomas Stadler
SIEMENS AG
Tel : +435170746855
Fax : +435170759102

PSE MCS RAZZ
Gudrunstrasse 11
AT - A 1101 VIENNA
Internet address: thomas.stadler@siemens.at
X400 address:
Mobile :

Mr. Katsumasa Sugiyama
FUJITSU Telecom. Ltd
4-1-1 Kamidodanaka, Nakahara
Kanagawa
JP - 2118588 KAWASAKI
Internet address: ksugiyama@jp.fujitsu.com
X400 address:
Tel : +81 44 754 4142
Fax : +81 44 754 4186
Mobile :

Mr. Hidetoshi Suzuki
Matsushita Communication
5-3 Hikarinooka
Yokosuka-Shi
JP - 239-0847 Kanagawa
Internet address: hidetoshi.suzuki@yrp.mci.mei.co.jp
X400 address:
Tel : +81 468 40 5164
Fax : +81 468 40 5183
Mobile :

Mr. Amnon Tal
IAEI
29 Hamered Street
P.O. Box 50026
IL - 61500 TEL-AVIV
Internet address: efrat_l@radwin.com
X400 address:
Tel : +972-3-6455577
Fax : +972-3-7657535
Mobile :

Dr. Said Tatesh
Lucent Technologies N. S. UK
Sigma Building, Widmill Hill
Business Park
GB - SWINDON, WILTSHIRE SN5 6PP
Internet address: statesh@lucent.com
X400 address:
Tel : +44 1793 883 293
Fax : +44 1793 883 815
Mobile : +44 7771 701575

Mr. Johan Torsner
Ericsson Radio Systems
Lemmingamsenkatu 14-18l
FI - 20520 Turku
Internet address: Johan.Torsner@lmf.ericsson.se
X400 address:
Tel : +358 9 299 3580
Fax : +358 9 299 3247
Mobile :

Mr. Antti Toskala
NOKIA Corporation
PO Box 301
FI - 00045 NOKIA GROUP
Internet address: Antti.Toskala@nokia.com
X400 address:
Tel : +358 9 511 38221
Fax : +358 9 511 30163
Mobile : +358 40 513 2710

Mr. Masafumi Usuda
NTT DoCoMo Inc.
3-5 Hikarinooka,
Yokosuka-shi
Tel : +81 468-40-3190
Fax : +81 468-40-3762
Mobile :

JP - 239-8536 KANAGAWA
Internet address: usuda@wsp.yrp.nttdocomo.co.jp
X400 address:

Dr. Cyril Valadon
TTP COMMUNICATIONS LTD
Melbourn Science Park
Cambridge Road
Hertsfordshire
GB - ROYSTON SG8 6EE
Internet address: cyril.valadon@ttpcom.com
X400 address:
Tel : +44 1763 266 266
Fax : +44 1763 261 216
Mobile :

Mr. Hans van der Veen
ETSI Secretariat
Route des Lucioles
FR - 06921 SOPHIA ANTIPOLIS CEDEX
Internet address: hans.vanderveen@etsi.fr
X400 address:
Tel : +33 4 92 94 42 61
Fax : +33 4 92 38 49 46
Mobile : +31 6 5519 6615

Mr. Alkinoos Vayanos
QUALCOMM EUROPE S.A.R.L.
Les Algorithmes, Aristote B
2000 route des Lucioles
BP 126
FR - 06903 SOPHIA ANTIPOLIS CEDEX
Internet address: avayanos@qualcomm.com
X400 address:
Tel : +1 (858)845-3011
Fax : +1 (858)658-5006
Mobile :

Ms. Jingyu Wang
CATT
CN -
Internet address: wangjy@catt.ac.cn
X400 address:
Tel : +86 10 62304422-206
Fax : +86 10 62303127

Mr. Carl Wenk
INTERDIGITAL COMMUNICATIONS
781 Third Avenue
US - 19406 PA KING OF PRUSSIA
Internet address: carl.wenk@interdigital.com
X400 address:
Tel : +1 631 622 4144
Fax : +1 631 622 0100
Mobile :

Mr. James Whitehead
AT&T Communications Services
7277 164th Avenue N.E.
PO Box 97061
US - 98073 REDMOND, WA
Internet address: jim.whitehead@attws.com
X400 address:
Tel : +1 425 580 6882
Fax : +1 425 580 6880
Mobile : +1 206 605 6849

Mr. Tim Wilkinson
IPWireless Inc.
4 Lansdowne Court
Bumpers Way
GB - Chippenham SN14 6RZ
Internet address: twilkinson@ipwireless.com
Tel : +44 1249 705 419
Fax : +44 1249 705 401
Mobile :

X400 address:

Mr. Serge Willenegger
QUALCOMM EUROPE S.A.R.L.
C/O Derriere-Ville B
CH - 1425 ONNENS
Internet address: sergew@qualcomm.com
X400 address:
Tel : +41 244 363 541
Fax : +41 244 363 542
Mobile : +41 79 285 0241

Mr. Guiliang Yang
CATT
Mobile Center TDD DEPT
No 40, Xueyuan Road
Haidian District
CN - 100083 BEIJING
Internet address: yanggl@pub.tdscdma.com
X400 address:
Tel : +86 10 62302577
Fax : +86 10 62304701
Mobile :

Mr. Gordon Young
Lucent Technologies N. S. UK
Sigma
Windmill Hill Business Park
GB - SWINDON SN5 6PP
Internet address: gyoung1@lucent.com
X400 address:
Tel : +44 1793 883 308
Fax : +44 1793 883 815
Mobile :

Mr. Chen Yuan
NOKIA Corporation
4, Keilalahdentie
P.O. Box 226
FI - 02150 ESPOO
Internet address: chen.yuan@nokia.com
X400 address:
Tel : +86 1390 101 2075
Fax : +86 10 8421-0576
Mobile :

Mr. Donald E. Zelmer
Cingular Wireless LLC
Room 840
1100 Peachtree St. N.E.
US - 30309 ATLANTA, GA
Internet address: don.zelmer@cingular.com
X400 address:
Tel : +1 404 236 5912
Fax : +1 404 249 5157
Mobile : +1 704 737 9950

Mr. Sen Lin Zhang
BT
MLB PP15 Adasral Park
Martlesham Heath
GB - IPSWICH IP5 3RE
Internet address: senlin.zhang@bt.com
X400 address:
Tel : +44 1473 605300
Fax : +44 1473 623 683
Mobile : +44 780 132 0876

Dr. Manfred Zimmermann
INFINEON TECHNOLOGIES
P.O. Box 80 09 49
DE - 81609 MUNICH
Internet address: Manfred.Zimmermann@infineon.com
X400 address:
Tel : +49 89 234 81636
Fax : +49 89 234 717634
Mobile :

Annex B: List of documents

Doc.No	Title	Source	Ag.It.	Revised by
12A010001	Draft Agenda	Chairman	2	
12A010002	HSDPA Transport channel data rate granularity with fixed TTI length	Nokia	4	
12A010003	Further buffer complexity and processing time considerations on HARQ	Nokia	4	
12A010004	Simulations on FCS benefits	Nokia	4	
12A010005	HSDPA related signaling parameters in downlink	Nokia	4	
12A010006	DL control channel structures for parameters sent before HS-DSCH TTI	Nokia	4	
12A010007	DL control channel structures for parameters sent simultaneously with HS-DSCH TTI	Nokia	4	
12A010008	HSDPA signaling in uplink	Nokia	4	
12A010009	Uplink channel structure for HSDPA	Samsung	4	
12A010010	Signalling Requirements for HSDPA in TDD mode	Siemens	4	
12A010011	MAC architecture model for HSDPA	Siemens	4	12A010040
12A010012	Signalling and Data Transfer for HSDPA in TDD Mode: Modelling of Layer1/Layer2 interface	Siemens	4	
12A010013	Quad-channel Stop and Wait HARQ in TDD Mode	Siemens	4	
12A010014	Requirements on HSDPA Feature	Ericsson	4	
12A010015	Proposals for HSDPA Feature	Ericsson	4	
12A010016	Refinement of simulation assumptions for HSDPA capacity evaluation	Vodafone Group	4	
12A010017	Outstanding issues with HSDPA	Vodafone Group	4	
12A010018	Service Requirements for HSDPA	Vodafone Group	4	
12A010019	Physical Layer Considerations for the Signalling Channels associated to the HS-DSCH in TDD	Siemens	4	
12A010020	High Speed Downlink Packet Access (HSDPA) - Overview	Motorola	4	
12A010021	Control Channel Structure for HS-DSCH	Motorola	4	
12A010022	Impact of MIMO Technology in HSDPA	Lucent Technologies	4	
12A010023	Variable TTI for HSDPA - hsdpa features, high level presentation	Lucent Technologies	4	
12A010024	HS-DSCH timing considerations (signalling)	Lucent Technologies	4	
12A010025	TrCH multiplexing (interaction of L1/L2)	Lucent Technologies	4	
12A010026	Physical layer model for HSDPA	Ericsson	4	12A010041
12A010027	HARQ requirements	Ericsson	4	
12A010028	Variable DL channel condition feedback rate for HSDPA	SONY Corporation	4	
12A010029	Discussion on TFCI for E-DSCH	Panasonic	4	
12A010030	A2IR for HSDPA - hsdpa features, high level presentation	Lucent Technologies	4	
12A010031	Semi-Static Code Space Division of Physical HS-DSCH	Lucent Technologies	4	
12A010032	Rel'5 HSDPA considerations	Nokia	4	12A010043
12A010033	RLC operation with HSDPA	Nokia	4	
12A010034	Fairness Criteria for HSDPA evaluation simulations	Qualcomm Europe	4	
12A010035	25.950 v4.0.0	MCC	3	
12A010036	25.848 v4.0.0	MCC	3	
12A010037	Comments on HSDPA variable TTI contribution	Lucent Technologies	4	
12A010038	Enhanced Symbol Mapping method for the modulation of Turbo-coded bits based on bit priority	Samsung	4	12A010044
12A010039	Discussion on TTI parametrisation	Nortel Networks	4	
12A010040	MAC architecture model for HSDPA	Siemens	4	
12A010041	Physical layer model for HSDPA	Ericsson	4	
12A010042	Draft TR 25.855 v0.0.1 on High Speed Downlink Packet Access	Rapporteur	4	

Doc.No	Title	Source	Ag.It.	Revised by
12A010043	Rel'5 HSDPA considerations	Nokia	4	
12A010044	Enhanced Symbol Mapping method for the modulation of Turbo-coded bits based on bit priority	Samsung	4	
12A010045	Approved report of the joint TSG-RAN WG1/WG2 meeting on HSDPA (Sophia Antipolis, France, 5 - 6 April 2001)	Secretary		