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Case No: HP-2015-000063

IN THE HIGH COURT OF JUSTICE

**CHANCERY DIVISION**

**PATENTS COURT**

Rolls Building

Fetter Lane, London EC4A 1NL

Date: 9 September 2016

**Before** :

MR JUSTICE ARNOLD

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**Between :**

|  |  |  |
| --- | --- | --- |
|  | **KONINKLIJKE PHILIPS NV** | Claimant |
|  | **- and -** |  |
|  | 1. **ASUSTEK COMPUTER INCORPORATION**
2. **ASUSTEK (UK) LIMITED**
3. **ASUS TECHNOLOGY PTE. LTD**
4. **HTC CORPORATION**
5. **HTC EUROPE CO. LTD**
 | Defendants |

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**Mark Vanhegan QC** and **Adam Gamsa** (instructed by **Bristows LLP**) for the **Claimant**

**James Abrahams QC** and **Joe Delaney** (instructed by **Hogan Lovells International LLP**) for the **Fourth and Fifth Defendants**

Hearing dates: 27-28 July 2016

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Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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MR JUSTICE ARNOLD

**MR JUSTICE ARNOLD :**

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Introduction

1. In these proceedings the Claimant (“Philips”) alleges infringement of three patents (“the Patents”) that are said by Philips to relate to a technology used in so-called “3.5G” mobile telephone systems known as High Speed Packet Access (HSPA). HSPA comprises High Speed Downlink Packet Access (HSDPA) and High Speed Uplink Packet Access (HSUPA). The Defendants fall into two groups: the First, Second and Third Defendants (“ASUS”) and the Fourth and Fifth Defendants (“HTC”).
2. Philips has declared that the Patents are essential to the European Telecommunications Standards Institute (ETSI) Universal Mobile Telecommunications System (UMTS) standard, in particular the sections of the standard that relate to the operation of HSPA, and they are therefore referred to as “standard essential patents” or “SEPs”. Philips’ case on infringement is based exclusively on this assertion of essentiality.
3. HTC do not admit that the Patents are essential to UMTS. HTC contend, however, that they have the benefit of a covenant by Philips not to sue licensees of Qualcomm Inc (“Qualcomm”) under any of Philips’ patents that are, or are claimed to be, essential to UMTS contained in clause 4.3 of an agreement between Qualcomm, Philips, US Philips Corp. and Philips Consumer Communications LP (“PCC”) dated 26 February 1998 (“the 1998 Agreement”). Philips accepts that HTC are licensees of Qualcomm and are entitled to the benefit of the covenant, but Philips disputes that the covenant extends to HTC’s acts complained of for the four reasons identified below. Philips also contends, if necessary, that the covenant is void on competition law grounds. On 21 April 2016 John Baldwin QC sitting as a deputy Judge of this Court ordered the trial of a preliminary issue as to whether the covenant extends to HTC’s acts complained of. If it is concluded that the covenant does not extend to HTC’s acts complained of, then the competition law issues will fall away. The preliminary issue does not concern ASUS.
4. It is common ground that the interpretation of the 1998 Agreement is governed by the law of the State of California in the United States of America. It is also common ground that, as explained below, under Californian law extrinsic evidence is admissible as an aid to interpretation to a greater extent than under English law.
5. Qualcomm contends that some of the terms of the 1998 Agreement are confidential, but has not objected to the provisions which are central to the preliminary issue being discussed in open court and in this judgment.

The witnesses

*Californian law experts*

1. Philips’ Californian law expert was Prof Jeffrey Lefstin. Prof Lefstin obtained a Bachelor’s degree in Biology from Brown University in 1989, a PhD in Biochemistry from the University of California in 1997 and a JD from Stanford University in 2000. He has been a member of the State Bar of California since 2000, and he is also admitted to practice before the Court of Appeals for the Federal Circuit and the Ninth Circuit. He is currently Professor of Law and Associate Academic Dean at the University of California, Hastings College of the Law. He has taught patent law and contract law since he joined the Hastings faculty in 2003, and those subjects are also the focus of his research. He has co-directed and taught at the UC Hastings-Bucerius Law School Program in International Intellectual Property Transactions since its inception in 2014.
2. HTC’s California law expert was Eric Bensen. Mr Bensen obtained a Bachelor’s degree in Marketing from Hofstra University in 1988 and a JD from the same university in 1996. From 1996 to 2008 he was in private practice at Dewey Ballatine LLP and then Paul, Hastings, Janofsky & Walker LLP, specialising in intellectual property litigation and licensing. Since 2008 he has been an independent consultant on intellectual property issues. He is admitted to the State Bar of New York and to practice before the Supreme Court, Court of Appeal for the Federal Circuit and the District Courts for Southern and Eastern Districts of New York. He is the author or co-author of four leading multi-volume intellectual property treatises, including *Milgrim on Licensing* and *Patent Licensing Transactions*.
3. It was sensibly agreed between the parties that there would be no cross‑examination of the experts as to the Californian law and that the court should give such weight to their reports as the court deemed appropriate, having regard to their experience and the underlying materials exhibited to their reports.
4. Counsel for Philips submitted that greater weight should be given to the evidence of Prof Leftsin than to the evidence of Mr Bensen, because Mr Bensen was lacking in expertise in Californian contract law as distinct from New York contract law. In support of this submission counsel for Philips pointed out that Mr Bensen had always practised in New York, albeit sometimes on matters involving the laws of other States. Moreover, he submitted this relative lack of expertise was manifested in Mr Bensen’s reports. For example, in his first report, Mr Bensen had failed to mention the decision of the California Supreme Court in *City of Good Hope* on the scope of the *contra proferentem* rule (as to which, see below). I accept this submission, but what matters most is the cogency of the experts’ opinions and the extent to which they are supported by the materials they relied upon. Furthermore, other than with respect to the scope of the *contra proferentem* rule, there was relatively little disagreement between the experts.

*Technical experts*

1. Philips’ technical expert was Liam Wickins. Mr Wickins obtained a BSc in Mathematics and Computer Science from the University of Bath in 1996. He was employed as a software engineer by MPC Data Ltd from 1996 to 1998 and by STMicroelectronics from 1998 to 2001. From 2001 to 2012 he was employed by PicoChip Designs Ltd successively as an embedded software engineer, senior applications engineer, WCDMA Development Manager and Director of Engineering. Following the acquisition of PicoChip by Mindspeed Technologies Inc, he oversaw the 3G engineering activities for Mindspeed’s wireless business unit. Since 2014 he has been Director of Engineering for Icoteq Ltd, which provides wireless systems consultancy and product development services.
2. HTC’s technical expert was Dr David Cooper. Dr Cooper obtained a degree in Mathematics from Imperial College, University of London in 1978. He has been involved in the field of telecommunications since 1987, when he joined Coherent Research, a communication and engineering consultancy, as a Software Manager. From 1994 to 1999 he was employed by NEC Technologies successively as Digital Signal Processing Group Leader, Systems Group Leader and Assistant Manager of UMTS Standardisation. While at NEC he represented the company within both ETSI and 3GPP in the development of both the GSM and UMTS standards. In 1998 he was appointed as Vice-Chairman of the 3GPP standards committee SA1, which was responsible for the definition of UMTS services, and also served as temporary secretary of the 3GPP RN4 committee, which was responsible for wireless performance specification. From 1999 to 2008 he was employed by Panasonic Mobile Communications Development of Europe Ltd successively as Manager for Digital Signal Processing and Chipset Development and Standards and IPR Manager. In this role he represented Panasonic in 3GPP GERAN and Open Mobile Alliance. In 2001 he obtained a PhD on Mains Communications from Surrey University. Since 2008 he has worked part-time as an independent engineering consultant at Hillebrand CE and part-time for 3GWave Ltd, a company he co-owns.
3. Rightly, neither counsel criticised the evidence of the other side’s expert. Both witnesses did their best to assist the court. There was little disagreement between them.

*Factual witnesses*

1. *Philips’ factual witnesses*. Cyrille Amar is currently a lawyer in private practice in Paris. From 1991 to 2000 he was employed in the legal departments of companies in the Philips group. As such, he was involved in the negotiations with Qualcomm which led up to the 1998 Agreement. In his witness statement Mr Amar explained the background to the 1998 Agreement and the history of the negotiations which led to the 1998 Agreement. Mr Amar’s evidence was not challenged in cross-examination.
2. Kevin Scott is currently employed by Philips as Principal Licensing Counsel for Philips Group Innovation, Intellectual Property & Standards. He has been employed by Philips since 1985, initially in a technical capacity and from 1997 drafting and prosecuting patent applications. He became a Chartered Patent Attorney in 1999 and a European Patent Attorney in 2000. Since about 2003 he has had day to day responsibility for managing Philips’ 3G licensing program. Although he was at Philips during the period of the negotiation of the 1998 Agreement, he did not have any personal involvement with the negotiations. His evidence was mainly concerned with the notifications Philips had received from Qualcomm under clause 4.3 of the 1998 Agreement.
3. George Willingmyre has been involved with standards since 1972. From 1989 to 1995 he was Vice President of the American National Standards Institute (ANSI). Since 1995 he has been President of GTW Associates, which is an international standards and trade policy consultancy. In his witness statement Mr Willingmyre explained how national and global Standards Developing Organisations (SDOs) operated in the 1990s. Counsel for HTC submitted that virtually the entirety of Mr Willingmyre’s evidence was inadmissible as being opinion, and for that reason did not challenge it in cross-examination. I do not accept this submission. In my view most of Mr Willingmyre’s evidence was factual evidence based on his experience at the time, although occasionally he slipped into expressions of opinion.
4. *HTC’s fact evidence*. Robby Ho is currently a Senior Director in the Concept Architecture & Advanced Technology Department at HTC. He explained how HSPA functionality is implemented in the HTC handsets that are alleged to infringe. Mr Ho’s evidence was not challenged in cross-examination
5. Lynn Yuis currently a Director in the Legal Department at HTC, having worked for HTC since 2007. She gave evidence about a Subscriber Unit License Agreement between Qualcomm and HTC Corp dated 20 December 2000 (“the SULA”) as well as other aspects of the HTC/Qualcomm relationship. She also gave evidence about HTC’s other licences with Philips. Ms Yu’s evidence was not challenged in cross-examination.
6. Counsel for Philips pointed out that HTC had not adduced any evidence from Qualcomm to counter the evidence of Mr Amar. He submitted that it was to be inferred that Qualcomm was unable to give any evidence to counter Mr Amar’s evidence. Counsel for HTC disputed this, and submitted that an alternative possibility was that Qualcomm was unwilling to assist HTC. HTC adduced no evidence to that effect, however. In any event, what matters for present purposes is not the absence of any evidence from Qualcomm, but the fact that Mr Amar’s evidence stands unchallenged.

Californian law

*California Civil Code*

1. The California Civil Code contains the following provisions concerning the interpretation of contracts which are relevant to the issues in this case:

“1636. A contract must be so interpreted as to give effect to the mutual intention of the parties as it existed at the time of contracting, so far as the same is ascertainable and lawful.

1637. For the purpose of ascertaining the intention of the parties to a contract, if otherwise doubtful, the rules given in this Chapter are to be applied.

1638. The language of a contract is to govern its interpretation, if the language is clear and explicit, and does not involve an absurdity.

1639. When a contract is reduced to writing, the intention of the parties is to be ascertained from the writing alone, if possible; subject, however, to the other provisions of this Title.

1640. When, through fraud, mistake, or accident, a written contract fails to express the real intention of the parties, such intention is to be regarded, and the erroneous parts of the writing disregarded.

1641. The whole of a contract is to be taken together, so as to give effect to every part, if reasonably practicable, each clause helping to interpret the other.

…

1643. A contract must receive such an interpretation as will make it lawful, operative, definite, reasonable, and capable of being carried into effect, if it can be done without violating the intention of the parties.

…

1645. Technical words are to be interpreted as usually understood by persons in the profession or business to which they relate, unless clearly used in a different sense.

…

1647. A contract may be explained by reference to the circumstances under which it was made, and the matter to which it relates.

1648. However broad may be the terms of a contract, it extends only to those things concerning which it appears that the parties intended to contract.

1649. If the terms of a promise are in any respect ambiguous or uncertain, it must be interpreted in the sense in which the promisor believed, at the time of making it, that the promisee understood it.

1650. Particular clauses of a contract are subordinate to its general intent.

 …

1653. Words in a contract which are wholly inconsistent with its nature, or with the main intention of the parties, are to be rejected.

1654. In cases of uncertainty not removed by the preceding rules, the language of a contract should be interpreted most strongly against the party who caused the uncertainty to exist.”

*General principles*

1. The goal of contractual interpretation is to discern the mutual intention of the parties as at the date of the contract. Intention is determined from objective manifestations of the parties’ intent in the language of the contract and extrinsic evidence. Where there is a dispute about the meaning of contractual language, there is a two stage test for determining the correct construction. First, the court asks whether the language is reasonably susceptible to the interpretation urged by each party. Secondly, if it is, the court asks what the parties intended the language to mean.

*Agreement as a whole*

1. However broad the terms of a contract may be, the contract extends only to those things in respect of which it appears the parties intended to contract. A California court would therefore eschew a construction that would extend the scope of an agreement beyond the apparent object of the parties. Particular clauses of a contract are subordinate to its overall intent, so a court may imply a term or limitation that is necessary to make the clause conform to the apparent object of the parties. The court will discern the general or overall intent of the parties (either from express statements or from a consideration of the terms) and seek to construe individual terms consistently with the purpose of the agreement.

*Extrinsic evidence*

1. Admissible extrinsic evidence includes:
	1. the circumstances under which the parties negotiated or entered into the contract;
	2. the object, nature and subject matter of the contract;
	3. how and why particular language emerged from the parties’ negotiations; and
	4. the subsequent conduct of the parties.
2. Extrinsic evidence may be used to aid interpretation, even if the contract language appears plain and unambiguous on its face. Extrinsic evidence may demonstrate that the contract is in fact reasonably susceptible to more than one interpretation. In theory, where the terms of the agreement are clear and explicit the language of the agreement will govern. In practice, however, the language of the agreement and the extrinsic evidence are considered as a harmonious whole, both to ascertain whether there is an ambiguity and also so as to resolve any ambiguity.

*Conduct of the parties*

1. The conduct of the parties following execution of the contract is admissible extrinsic evidence and is considered as one of the most reliable means of ascertaining the parties’ intent. The practical construction evidenced by the parties’ conduct may trump the apparent meaning of the contractual language. This includes a party’s unilateral conduct, even if unknown to its counterparty. No distinction is drawn between the conduct of both parties and that of a single party, except in the weight that the court gives to the evidence. Once a dispute arises as to the meaning of a contract, whether or not in the context of litigation, a party’s conduct thereafter is no longer probative of intent.

*Absurd results*

1. Interpretations that lead to absurd results are disfavoured by the California courts. For example, it is an absurdity to suggest a reasonable business entity would contractually obligate itself to operate without regard to its business interests.

*The contra proferentem rule*

1. It is common ground that, if the correct construction of the contract cannot be ascertained by applying the canons of construction set out above, the California courts construe the contractual language against the party that supplied the language in question.
2. Prof Lefstin’s evidence is that this rule is not limited to standard‑form contractual clauses, but includes contracts negotiated between the parties. Mr Bensen’s evidence is that the rule does not apply to negotiated contracts. I find Prof Lefstin’s evidence on this point more persuasive, since it is supported by the decision of the California Supreme Court, which is the ultimate authority as to California law, in *City of Hope National Medical Center v Genentech Inc* 43 Cal 4th 375 (2008). In that case the trial judge had instructed the jury that “If, after considering the evidence in the light of the foregoing rules of interpretation, there remains an uncertainty in the language of the contract, that language must be interpreted against the party who caused the uncertainty to exist”. Genentech contended that the *contra proferentem* rule did not apply to contracts that were the result of negotiations between the parties, as was the contract in that case. This argument was rejected by the Supreme Court. As Kennard J stated in his opinion on behalf of a unanimous court at 158:

“The challenged jury instruction at issue here is taken almost verbatim from Civil Code section 1654 … The trial court’s instruction thus embodies a general rule of contract interpretation that was applicable to the negotiated agreement between Genentech and City of Hope. It may well be that in a particular situation the discussions and exchanges between the parties in the negotiation process may make it difficult or even impossible for the jury to determine which party caused a particular contractual ambiguity to exist, but this added complexity does not make the underlying rule irrelevant or inappropriate for a jury instruction. We conclude, accordingly, that the trial court here did not err in instructing the jury on Civil Code section 1654’s general rule of contract interpretation.”

1. As noted above, Mr Bensen did not mention *City of Hope* in his first report. Instead, he relied on two cases of the California Court of Appeal, *County of San Joaquin v Workers’ Compensation Appeals Board* 117 Cal App 4th 1180 (Cal App 3d Dist, 2004) and *Dunne & Gaston v Keltner* 50 Cal App 3d 560 (Cal App 2d Dist, 1975), both of which predated *City of Hope*. In his second report, Mr Bensen suggested that *City of Hope* did not supersede those two cases for three reasons:
	1. *City of Hope* did not purport to make changes to the existing law and was limited to its facts;
	2. *City of Hope* did not refer to either Court of Appeal case; and
	3. the California Court of Appeal continues to cite and apply its earlier decisions without making any reference to *City of Hope*.
2. Prof Leftsin took issue with each of these points in his third report, and I find his evidence persuasive. As to the first point, *City of Hope* is a clear decision on a general principle of California law, in no way limited to the particular facts of the case. With respect to the second point, *Dunne & Gaston* was expressly cited in Genentech’s brief to the California Supreme Court in *City of Hope*. Furthermore, there were other authorities which took the contrary position, such as *Apple Computer Inc v Microsoft Corp* 709 F Supp 925 (ND Cal, 1989). So far as the third point is concerned, Mr Bensen relied on three unpublished Court of Appeal decisions, but California Rule of Court 8.1115(a) prohibits any citation or reliance on any unpublished opinion. Even if these had been published judgments, they would have limited precedential value, would not be binding on any other three judge panel of the Court of Appeal comprising approximately 100 judges and in any event the Supreme Court decision would remain binding. As Prof Lefstin pointed out, any remaining doubt about the current state of the law is resolved by the fact that the key passage from *City of Hope* has been incorporated into California’s official Civil Jury Instructions approved by the Judicial Council at Instruction 320.

Multiple access techniques

1. Since the issues between the parties relate to the different techniques used for multiple access in mobile telecommunications systems, it will be convenient if I provide an introduction to this subject now. I shall have to return to it in more detail later.
2. In cellular mobile telecommunications systems, it is necessary to ensure that many mobile stations can communicate with a single base station and vice-versa. This is referred to as “multiple access”. The multiple access technique is a key element in each system, and systems are often characterised by reference to their approach to multiple access. The primary goal of multiple access is to allocate communication resource between individual users in an efficient manner, in order to facilitate the required data communications for user traffic services between a base station and many mobile stations within a cellular network.
3. Several techniques for multiple access have been developed, including time division multiple access (TDMA), frequency division multiple access (FDMA), orthogonal FDMA (OFDMA) and code division multiple access (CDMA). Each of these acronyms describes the method by which the communication resource is separated amongst a number of different individual users; thus a TDMA scheme assigns individual users time slots, whereas a FDMA scheme assigns users different non‑interfering frequencies. In CDMA, concurrent usage of the radiofrequency (RF) channel by all users is permitted, with each user being assigned a different code.
4. The different multiple access schemes each have technical advantages and disadvantages. Accordingly, some systems combine more than one form of multiple access scheme to create a hybrid. A well-known example of this in February 1998 was ETSI’s second generation (2G) digital cellular standard, GSM, which is a hybrid TDMA/FDMA system.
5. Another example of a hybrid scheme combining TDMA and CDMA is TD-SCDMA. This system was developed by the China Academy of Telecommunication Technology (CATT) and Siemens in parallel with other third generation (3G) proposals in the 1990s.

Access control mechanisms

1. A related topic is that of access control mechanisms. Mobile telecommunications systems employ certain mechanisms to control access to the network, such as paging in the downlink and random access in the uplink.
2. Paging is a procedure used as part of access control regardless of the multiple access scheme. It allows a mobile device to transition from an idle state to a connected state in order to send and receive traffic data. Paging messages are infrequent, and so paging resources are shared. In order to save on battery consumption, users are split into separate groups, which are only required to listen for paging messages during certain periodical paging cycles.
3. Random access, like paging, forms part of an overall access control scheme. Again, it provides a mechanism for the mobile device to access the network in the sense of transitioning from an idle to a connected state. The base station will allocate one or more random access resources, generally called a random access channel (RACH). To minimise the risk of collision between different mobiles’ access attempts, some form of randomised time delay is introduced. This is irrespective of the scheme used for multiple access.
4. There are a number of parallels between random access and paging. Both are used for access control; involve a random distribution of pages/access attempts in time; do not allocate resources uniquely to individual users; and necessarily employ or use an element of time division.

The UMTS standard

1. An important part of the background to the 1998 Agreement is the UMTS 3G standard which was being developed by ETSI at that time.
2. In an open mobile telecommunications systems, it is necessary to create a system whereby every handset can access every network and use its services regardless of the manufacturer of the handset, the manufacturer of the network and the operator. In order to achieve this, a standardised set of requirements and instructions for operation is required. A number of different SDOs exist in different regions, such as ETSI in Europe and the Telecommunications Industry Association (TIA) in the USA.
3. In 1998 ETSI was developing the UMTS standard, although UMTS is now maintained by the Third Generation Partnership Project (3GPP). The standardisation work on UMTS produced globally applicable Technical Specifications (TSs) which together form the standard. These specifications are open and are therefore available to all those who wish to work to them.
4. In December 1997 ETSI published four proposals for the radio interface for the UMTS standard. Each proposal was developed by a “Concept group” and the proposals themselves were referred to as the “Alpha concept”, the “Beta concept”, the “Gamma concept”, and the “Delta concept”. In summary, the Alpha concept was based on a wideband CDMA (WCDMA) scheme, the Beta concept on a hybrid OFDMA/TDMA scheme, the Gamma concept on a wideband TDMA scheme, and the Delta concept on a hybrid TDMA/CDMA scheme.
5. At a meeting on 28 and 29 January 1998 an agreement was reached within ETSI that both the Alpha concept and the Delta concept would be taken forward. The Alpha concept (WCDMA) was adopted for what was proposed to be the paired band (Frequency Division Duplex or FDD) mode of operation, and the Delta concept (TDMA/CDMA) would be adopted for what was proposed to be the unpaired band (Time Division Duplex or TDD) mode of operation. (These are references to the means by which two-way communication is achieved: in FDD downlink and uplink transmissions are allocated separate RF channels, while in TDD they are allocated separate time slots.) Philips and Qualcomm were both members of ETSI and their representatives were at the relevant ETSI meeting where this decision was made.
6. In UMTS a system of different “Releases” is used to ensure a controlled progression of the defined standards. 3GPP Technical Report 21.900 (“Technical Specification Group; Working Methods”) explains:

“Specifications are grouped into ‘Releases’. A mobile system can be constructed based on the set of all specifications which comprise a given Release. A Release differs from the previous Release by having added functionality introduced as a result of ongoing standardization work within the Groups.”

1. The first full release of UMTS was called “Release 99” (because it was intended to be released in 1999, although in fact it was released in March 2000). Release 99 incorporated a development of the Alpha concept for FDD and a development of the Delta concept for TDD. Release 99 was followed by “Release 4”, then “Release 5” and so on. Later Releases are backwards compatible with earlier Releases, i.e. a network adhering to a newer Release continues to support all handsets conforming with older Releases, and handsets adhering to a newer Release continue to operate with networks conforming with older Releases.

The ETSI and TIA IPR policies

1. In order to reconcile the conflict between patents which confer a monopoly over the claimed inventions and standards which are designed to be implemented by anyone, SDOs have adopted IPR policies.

*ETSI*

1. The basic idea behind the ETSI IPR Policy is that members declare as “essential” patents which they believe cover the implementation of any of the ETSI standards, and undertake to make licences available to those patents on fair, reasonable and non-discriminatory (FRAND) terms.
2. The following provisions of the 1997 version of the ETSI IPR policy are relevant. Article 4.1 relates to early disclosure by members:

“Each MEMBER shall use its reasonable endeavors to timely inform ETSI of ESSENTIAL IPRs it becomes aware of. In particular, a MEMBER submitting a technical proposal for a STANDARD shall, on a bona fide basis, draw the attention of ETSI to any of that MEMBER’s IPR which might be ESSENTIAL if that proposal is adopted.”

1. Article 6.1 sets out the FRAND obligation:

“When an ESSENTIAL IPR relating to a particular STANDARD is brought to the attention of ETSI, the Director-General of ETSI shall immediately request the owner to give within three months an undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory terms and conditions under such IPR to at least the following extent:

* MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee’s own design for use in MANUFACTURE;
* sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
* repair, use, or operate EQUIPMENT; and
* use METHODS.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate.”

1. Article 15.6 defines “essential” as follows:

“‘ESSENTIAL’ as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardisation, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a standard can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.”

1. Article 15.11 defines the term “Standard” as follows:

“‘STANDARD’ shall mean any Standard adopted by ETSI including options therein or amended versions and shall include European Standards (ENs) (telecommunications series), ETSI Standards (ESs), Common Technical Regulations (CTRs) which are taken from ENs (telecommunications series) and including drafts of any of the foregoing, and documents made under the previous nomenclature, including ETSs, I-ETSs, parts of NETS and TBRs, the technical specifications of which are available to all MEMBERS, but not including any Standards, or parts thereof, not made by ETSI.”

*TIA*

1. The TIA IPR policy as at 1998 was similar to that of ETSI. It defined “essential” as follows:

**“Essential Patent**: A patent required for compliance with the normative elements of a standard or interim standard.”

1. The TIA’s licensing requirement was as follows:

“Prior to approval of such a proposed TIA Standard or Interim standard, TIA shall receive from the patent holder (in a form approved by TIA) either: assurance in the form of a general disclaimer to the effect that the patentee does not hold and does not anticipate holding any invention whose use would be required for compliance with the proposed TIA Standard or Interim Standard or assurance that:

(1) A license will be made available without compensation to applicants desiring to utilize the license for the purpose of implementing the standard,

or

(2) A license will be made available to applicants under reasonable terms and conditions that are demonstrably free of any unfair discrimination.”

1. As regards what constituted a “standard” under the TIA policy, there was no separate definition as at 1998.
2. In 2005, the TIA IPR policy underwent a number of changes, amongst which the definition of “Essential Patent” was changed so as to read:

“only the claim(s) of a patent (whenever issued) which is (are) necessarily infringed by the practice of a Normative portion of a TIA Standard”.

1. “Normative” portions of a standard were newly defined as follows:

**“Normative (alternate) elements** ‑ those elements of a Standard, any one or more of which may be complied with in order to claim conformity with the Standard.

**Normative (mandatory) elements** ‑ those elements of a Standard which always must be complied with in order to claim conformity with the Standard.

**Normative (optional) elements** ‑ those elements of a Standard which may be selected in order to claim conformity with the Standard and which if selected, must be implemented as specified in the Standard.”

1. The effect of these changes in 2005 was thus to make it explicit that a patent that was necessarily infringed by the practice of an “optional” element of a standard was nonetheless still an “essential” patent. This is confirmed in the explanation given by the TIA for these changes, which is found in its 2005 Guidelines:

“Normative Elements, has been divided further into Alternate, Mandatory and Optional Elements. Each element requires compliance with the IPR policy. However, it came to the attention of the IPR Standing Committee that, in the past, absent a reference in the Manual, one or more companies believed that a commitment to license pursuant to a Patent Holder’s Statement covered only Mandatory Normative Elements. It is the intention that such an interpretation in the past was justified and not in violation of the TIA policy. However, compliance after the effective date of the new Manual as first above stated requires treating all of the kinds of Normative Elements alike.”

The negotiation of the 1998 Agreement

1. In the mid to late 1990s, Philips had a mobile telecommunications business manufacturing GSM handsets. Philips’ strategy was to expand this business globally, with the aim of becoming one of the top three players with a global market share of more than 20%. Accordingly, it sought to expand into the USA, but it needed to obtain a licence from Qualcomm under the latter’s CDMA patent portfolio in order to do so. Qualcomm owned a number of patents protecting the CDMA system that it had developed, which it called cdmaOne. In 1993 the TIA had adopted an interim standard for mobile telecommunications called IS-95 based on the physical layer of cdmaOne. (Strictly speaking, IS-95 was not a complete standard, since it required the addition of at least one “Service Option” to complete it; but the combination of IS-95 plus one or more service options was loosely referred as “IS-95”.) IS-95 was the dominant 2G standard in the USA in the period preceding the 1998 Agreement.
2. Qualcomm’s publicly-stated strategy at the time was to support worldwide adoption of its CDMA technology instead of TDMA or GSM. To this end, Qualcomm had an established licensing program with 30 subscriber and 10 infrastructure licensees according to its Form 10-K for the year ended 28 September 1997 (a Form 10-K is an annual report required by the US Securities and Exchange Commission that includes *inter alia* a summary of a company’s financial performance). Qualcomm considered that it held the core patents for cdmaOne. While other companies claimed that they held patents that were relevant to CDMA, Qualcomm’s stance was that a licence under those patents was unnecessary to practice IS-95.
3. Following a period of negotiation between Philips and Qualcomm beginning in November 1995, and in order to settle litigation in the US that had arisen between them in May 1997 concerning three Philips patents which Philips claimed to be essential to IS-95, Philips and Qualcomm entered into the 1998 Agreement. The 1998 Agreement began life as a Qualcomm form of agreement, but was negotiated between the parties.
4. Philips owned a portfolio of patents which it claimed were essential to GSM. By the beginning of 1998, Philips had entered into 13 licence agreements covering GSM. Philips insisted on an exclusion of TDMA technology from the scope of the 1998 Agreement. Philips viewed the 1998 Agreement as very one-sided in favour of Qualcomm, not least because no value was apparently attributed to Philips’ patent portfolio. Philips considered that its TDMA patents should be excluded because the patent positions between Qualcomm and Philips were reversed in respect of TDMA technology as compared to CDMA technology.
5. At the instigation of Qualcomm, the wording “the proposed ETSI UMTS standard” was introduced into the definition of “CDMA Wireless Industry Standards” in the 1998 Agreement. This occurred very late in the course of the negotiations. It was not the focus of the 1998 Agreement. It is not clear from the evidence whether other references to the proposed ETSI UMTS standard were introduced into the 1998 Agreement at the same time.
6. The 1998 Agreement was executed in March 1998, but dated 26 February 1998.

Relevant provisions of the 1998 Agreement

1. Clause 4.3 provides:

“QUALCOMM Option to Obtain Covenant Not to Assert. Philips hereby grants QUALCOMM an option to designate any or all of its existing and future CDMA licensees as a ‘**CDMA Technically Necessary Patent Beneficiary**.’ QUALCOMM may exercise its option at any time and from time to time throughout the term of this Agreement, each time by sending written notice to Philips identifying each new CDMA Technically Necessary Patent Beneficiary. Philips, on behalf of itself and its Affiliates, hereby covenants that, as to each CDMA Technically Necessary Patent Beneficiary, Philips and its Affiliates will not assert any of their CDMA Technically Necessary Patents against any manufacture, use, sale, importation of equipment and/or components, or other acts of infringement, relating to a CDMA Wireless Industry Standard of a CDMA Technically Necessary Patent Beneficiary; provided, however, that Philips and/or its Affiliates may assert their CDMA Technically Necessary Patents against any CDMA Technically Necessary Patent Beneficiary that asserts any of its patents against Philips or its Affiliates and any of their telephone products or that initiates a declaratory judgment action, re-examination proceedings or opposition proceedings challenging the validity of any of Philips’ CDMA Technically Necessary Patents; provided, however, that nothing in this Section 4.2 [sic – it is agreed that this is an obvious typographical error] shall prohibit or otherwise limit Philips’ right to assert any of its patents against any entity for infringement relating to any TDMA equipment or system (including, without limitation GSM, IS-54, PCS-1800, and PCS-1900).”

1. CDMA Wireless Industry Standard is defined in clause 1 as follows:

“‘**CDMA Wireless Industry Standard**’ means standards for public code division multiple access communications including but not limited to IS-95A, IS-96A, IS-127, ANSI J-STD-008, the proposed ETSI UMTS standard, their subsequent releases, revisions and derivations, and any local and regional standards based substantially thereon, any wireless local loop or wireless PBX (private branch exchange) systems based substantially thereon, and the Globalstar Satellite System. For the purposes of this Agreement, including but not limited to determining whether a patent is a CDMA Technically Necessary Patent, CDMA Wireless Industry Standard includes all of the above-described standards and systems but does not include the GSM standard or any other standard which utilizes a TDMA over-the-air interface.”

1. CDMA Technically Necessary Patents are defined in clause 1 as follows:

“‘**CDMA Technically Necessary Patents**’ means claims of any patents which either Philips, PCC or QUALCOMM (or any of their respective Affiliates) own or have the right to license in the manner contemplated by this Agreement at any time after the Effective Date that are essential or claimed by the licensing Party or any of its Affiliates to be essential at any time during the term of this Agreement to the manufacture, use or sale of Subscriber Units and other end user wireless terminals, CDMA Modem Cards, CDMA ASICs. Components and/or CDMA Network Infrastructure Equipment which, respectively, comply with the specifications of a CDMA Wireless Industry Standard adopted or implemented anywhere in the world (i.e., must necessarily be infringed upon in order to comply with the applicable CDMA standard). Notwithstanding anything to the contrary herein, the term ‘CDMA Technically Necessary Patents’ at a minimum includes U.S. patent numbers: 4,633,509, 4,765,753 and 5,140,638, and their foreign counterparts.”

1. TDMA Technically Necessary Patents are defined in clause 1 as follows:

“‘**TDMA Technically Necessary Patents**’ means all claims of any of the Philips’ Patents and QUALCOMM Patents that are essential or claimed to be essential to the manufacture, use or sale of infrastructure equipment and/or end user wireless terminals which, respectively, comply with the specifications of the GSM, IS54, PCS-1800, PCS-1900, and related TDMA standards adopted anywhere in the world (i.e., must necessarily be infringed upon in order to comply with the applicable standard), provided, however, that a patent shall not be deemed to be a TDMA Technically Necessary Patent solely by reason of its being essential, or claimed to be essential, to comply with the specifications of proposals for ETSI UMTS.”

1. Clause 5.1 provides:

“Grantof License from Philips. Philips hereby grants to QUALCOMM a personal, nontransferable, worldwide, nonexclusive, fully-paid and royalty-free license under Philips’ Patents solely for Wireless Applications to make (and have made), import, use and sell, lease or otherwise dispose of QUALCOMM Licensed Products. No other, further or different license is hereby granted or implied.”

1. Philips’ Patents are defined in clause 1 as follows:

“‘**Philips’ Patents**’means (1) Philips’ CDMA Technically Necessary Patents and (2) all other patents (excluding design patents and design registrations) issuing in any country in the world on applications filed on or prior to December 31, 2001 for which Philips, PCC and/or any of their Affiliates have a right to grant the licenses granted herein, but does not include:

(a) any claims of such patents and/or other rights which cover or purport to cover aesthetic designs and/or the ‘look and feel’ of software, hardware and/or operating systems; and

(b) any claims of such patents covering inventions relating to batteries or other power sources; lamps and light sources; optical recording and playback; semiconductor, optoelectronic, and electronic materials; technology for the manufacture and testing of electronic components and\or semiconductor devices; mounting and packaging equipment technology; printed circuits and surface mounted device construction, materials and manufacturing; and/or medical devices and technology;

(c) any claims of such patents covering inventions relating to compression, decompression, and/or coding of video (moving and still picture) signals;

(d) any patents which are included as part of the portfolio of an established Philips royalty-bearing licensing program (either alone or in conjunction with third parties), outside of the radio communications field, on the Effective Date, unless such patents are also CDMA Technically Necessary Patents.

Philips’ Patents includes those patents of any third party which Philips, PCC or any of their Affiliates has the right to sublicense to QUALCOMM upon the payment of royalties or other consideration to such third party if, and only for so long as, QUALCOMM agrees to pay and timely pays all such royalties or consideration and complies with the terms and conditions of such third party sublicense.”

1. “QUALCOMM Licensed Products” are defined in clause 1 as follows:

“‘**QUALCOMM Licensed Products**’ means: (1) Subscriber Units, (2) complete wireless data end user terminals (including, without limitation: personal digital assistants, portable computers, personal mobile communicators, facsimile machines, and data entry terminals) which include the ability to initiate and/or receive Wireless Communications in accordance with a CDMA Wireless Industry Standard, (3) CDMA Modem Cards; (4) Components; (5) CDMA Network Infrastructure Equipment and (6) CDMA ASICs.”

1. Clause 5.1.3 provides:

“In the event that any ETSI UMTS standard is adopted which is backwards compatible with GSM, then notwithstanding anything to the contrary in this Agreement, QUALCOMM and the CDMA Technically Necessary Patent Beneficiaries shall not have any right or license under Philips' TDMA Technically Necessary Patents which are essential to comply with the specifications of GSM to make, use or sell QUALCOMM Licensed Products which can be used to initiate and/or receive Wireless telecommunications transmissions in accordance with such ETSI UMTS standard, even if such patents are essential in order to comply with such standard; provided, however, that if QUALCOMM desires to make, use or sell products compatible with such standard, then Philips shall not unreasonably refuse to extend such rights and license to QUALCOMM in consideration for fair and reasonable compensation which may, subject to mutual agreement, include a reduction in the royalty rates which PCC is obligated to pay QUALCOMM for PCC Licensed Products which comply with such standard or a fair and reasonable royalty payable by QUALCOMM to Philips for QUALCOMM Licensed Products which comply with such standard.”

1. In addition to clause 4.3, there are a number of clauses in the 1998 Agreement which refer to the ETSI UMTS standard, including clause 3.2 and 3.3.3. Clause 3.2 provides, so far as relevant:

“Royalties. In partial consideration for such license from QUALCOMM in Section 3.1.1. PCC shall pay to QUALCOMM, within thirty (30) days after the end of each calendar quarter a percentage of the Net Selling Price for each PCC Licensed Product which is Sold by PCC during each calendar quarter during the term of this Agreement and which incorporates any claim of any of QUALCOMM's Patents. The percentage of the Net Selling Price payable to QUALCOMM … shall be … Notwithstanding the foregoing, the percentage of the Net Selling Price payable to QUALCOMM shall be … for each PCC Licensed Product Sold (except products for Wireless Local Loop Applications) which can be used to initiate and/or receive Wireless telecommunications transmissions in accordance with any proposed ETSI UMTS standard not backwards compatible with IS-95, or any subsequent releases, revisions, derivations or local or regional standards based substantially thereon, unless and until QUALCOMM begins selling commercial quantities of QUALCOMM Licensed Products which can be used to initiate and/or receive Wireless telecommunications transmissions in accordance with such proposed ETSI UMTS standard. ...”

1. Clause 3.3.3 provides, so far as relevant:

“It is possible that ETSI may attempt to encourage or require holders of relevant intellectual property rights to undertake to grant special licenses or to enter into patent pools or other arrangements with regard to products sold for use under the future UMTS standard. If and to the extent that QUALCOMM chooses to enter into such undertakings and if PCC chooses to and is able to obtain all necessary licenses thereunder from QUALCOMM …”

The issues

1. Philips contends that clause 4.3 does not extend to HTC’s acts complained of for four separate reasons:
	1. The alleged infringements arise from HTC’s implementation of HSPA in its 3.5G mobile handsets. Philips contends that these acts are excluded from the scope of clause 4.3 because implementing HSPA is not an “act of infringement relating to a CDMA Wireless Industry Standard”as defined in clause 1 of the 1998 Agreement.
	2. Clause 4.3 contains a proviso preserving Philips’ right to assert any of its patents against any entity for an act of infringement relating to any TDMA equipment or system*.* Philips contends that HSPA utilises a TDMA system and HTC’s devices are TDMA equipment within the meaning of the proviso to clause 4.3.
	3. Philips contends that the Patents are not CDMA Technically Necessary Patents as defined in clause 1 of the 1998 Agreement.
	4. Philips contends that the covenant not to assert extends only to CDMA Technically Necessary Patent Beneficiaries who are dealing in Qualcomm Licensed Products, such as ASICs manufactured and supplied by Qualcomm pursuant to the 1998 Agreement. It is common ground that HTC purchase some of their chipsets from one of Qualcomm’s competitors, Mediatek Inc. This issue does not affect all HTC’s alleged acts of infringement, however.

Issue 1: Is HSPA covered by a CDMA Wireless Industry Standard?

1. HTC rely on the fact that Philips claims that the Patents are essential to (in one case) Release 5 and (in the other cases) Release 6 of UMTS TS 25.214, which is a Technical Specification forming part of the UMTS standard, and subsequent releases of that specification. HSDPA was introduced in 2002 as part of Release 5 and HSUPA was introduced in 2004 as part of Release 6. HTC say that these are “subsequent releases” of “the proposed ETSI UMTS standard”, and hence fall within the definition of CDMA Wireless Industry Standard in clause 1 of the 1998 Agreement. Philips disputes this. Philips contends that the definition of CDMA Wireless Industry Standard is restricted to standards which specify “pure” CDMA systems, that is to say, systems in which the primary means by which individual users’ traffic services are separated is achieved by code division alone, and excludes any system which utilises a TDMA over-the-air interface. As is common ground, HSPA is a hybrid TDMA/CDMA system.

*The wording of the definition*

1. *The opening words*. Philips’ starting point is that the opening words of the definition state that CDMA Wireless Industry Standard “means standards for public code division multiple access communications”. Philips contends that the literal meaning of this language is restricted to pure CDMA standards and does not extend to hybrid standards. In my view the wording permits, but does not compel, the conclusion that hybrid standards are excluded. In any event, the definition does not stop there, and therefore it is necessary to read on. It proceeds to say that a number of standards are included, which I shall consider in turn.
2. *IS*-*95A*. IS-95A was the first revision of IS-95. Philips says that IS-95 was a pure CDMA system because, when one looks at the primary means by which individual users’ traffic services are separated, that was achieved by code division alone. HTC says that IS-95 was a hybrid CDMA/TDMA system. This is because IS-95 employed time division in the paging channel and the RACH. Dr Cooper and Mr Wickins were agreed, however, that this did not alter the fact that IS-95 was properly characterised as a CDMA system. Consistently with this, Qualcomm publicly characterised IS-95 as a CDMA system in the period prior to the 1998 Agreement.
3. *IS-96A*. This was a voice codec (coder-decoder) standard for use in conjunction with IS-95A. As such, it does not alter the characterisation of IS-95.
4. *IS-127*. This was an enhanced voice codec, again for use with IS-95A. Again, it does not alter the characterisation of IS-95.
5. *ANSI J-STD-008*. J-STD-008 was a standard for Personal Communications Systems promulgated by the ANSI in 1995. Like IS-95, it was based on Qualcomm’s CDMA technology. Again, therefore, this was a CDMA system.
6. *The proposed ETSI UMTS standard*. As discussed above, at the date of the 1998 Agreement, it had recently been agreed that both the Alpha concept and the Delta concept would be incorporated into the UMTS standard. Dr Cooper and Mr Wickins were agreed that the Alpha concept was properly characterised as a CDMA system. Consistently with this, both ETSI and Qualcomm characterised it as a CDMA system.
7. Philips accepts, however, that the Delta concept was not a pure CDMA system. Rather, it was a hybrid TDMA/CDMA system which was deliberately designed with TDMA elements so as to enable it to work as closely as possible with GSM.
8. In these circumstances, HTC say that the expression “the proposed ETSI UMTS standard” did not denote a pure CDMA system, but rather included a hybrid system with a CDMA element. Philips says that the expression “the proposed ETSI UMTS standard” is ambiguous: it could refer to just the Alpha concept or it could refer to the combination of the Alpha and Delta concepts. Philips argues that the correct interpretation is that the expression was intended to refer to just the Alpha concept. In support of this argument, Philips relies upon two aspects of the 1998 Agreement, namely the closing words of the definition of CDMA Wireless Industry Standard and the definition of TDMA Technically Necessary Patents, as well as extrinsic evidence and the *contra proferentem* rule. I will consider each of these below. Purely as a matter of the wording of the 1998 Agreement viewed against the background concerning the UMTS standard as at that date, however, I consider that the more natural interpretation of the expression “the proposed ETSI UMTS standard” is that it embraces both the Alpha and the Delta concepts since it had been agreed that both would be incorporated into UMTS. But I do not consider that this is so clear that the words are not reasonably susceptible of Philips’ interpretation.
9. HTC also take a point arising out of the fact that Philips admitted in its statement of case that Release 99 of UMTS (and derivations thereof) was within the scope of the definition of CDMA Wireless Industry Standard. As HTC point out, this admission is inconsistent with Philips' case on the interpretation of the definition. Philips has a rather complicated explanation for the admission which I find difficult to understand. But the fact that Philips made an admission which it is now embarrassed by adds little to the force of HTC's argument based on the words under consideration.
10. *Subsequent releases, revisions and derivations*. HTC rely strongly on these words. HTC say that, even if (which they dispute) “the proposed ETSI UMTS standard” was limited to the Alpha concept, Releases 5 and 6 of UMTS are properly described as “subsequent releases” of “the proposed ETSI UMTS standard”. Philips disputes this. It argues that it cannot have been the parties’ intention to include a new over-the-air interface merely because the relevant standards body has included it in a subsequent release. As Philips points out, the fourth generation (4G) standard LTE would be a subsequent release too, as it was provided for in UMTS release 8, despite its use of OFDMA in the over-the-air interface in place of CDMA. I agree with Philips that this is unlikely to have been intended. If, on the other hand, “the proposed ETSI UMTS standard” was intended to include a hybrid TDMA/CDMA system in the form of the Delta concept, then it would make sense to regard HSPA, which is another hybrid TDMA/CDMA system, as forming part of a “subsequent release, revision or derivation” of it.
11. *Local and regional standards based substantially thereon*. HTC rely upon these words as showing that the definition was intended to be comprehensive rather than narrowly confined. I accept this up to a point, but the words “based substantially on” are imprecise and unclear as to their effect. Accordingly, I consider that this adds little to the HTC's case based on the words I have considered in the preceding paragraph.
12. *The closing words*. Philips relies strongly on the closing words of the definition “but does not include the GSM standard or any other standard which utilizes a TDMA over-the-air interface”. It is common ground that, as noted above, GSM was a hybrid TDMA/FDMA system. This is consistent with the way in which Qualcomm characterised GSM. Philips argues that the words “or any other standard which utilizes a TDMA over-the-air interface” exclude any other hybrid system which incorporates TDMA, including the Delta concept.
13. HTC’s answer to this argument is that, read as a whole, the 1998 Agreement divides the standards and systems into two mutually exclusive categories, namely CDMA and TDMA, by reference to their fundamental access technologies even if they are not pure CDMA or TDMA.
14. In my view there are two related problems with HTC’s answer. First, if all the standards and systems with which the 1998 Agreement is concerned are to be divided into CDMA or TDMA, where does one place a hybrid CDMA/TDMA system? HTC’s argument is that such systems are to be categorised as CDMA rather than TDMA, but why should this be so? Secondly, if the criterion is the “fundamental access technology”, as HTC suggests, it is unclear how the Delta concept and HSPA should be categorised when they utilise both CDMA and TDMA.
15. Accordingly, I consider that the concluding words of the definition support Philips’ interpretation. I do not consider, however, that, read in the context of the 1998 Agreement as a whole, they are so clear as not to be reasonably susceptible of HTC’s interpretation.

*Other provisions of the 1998 Agreement*

1. *The proviso to clause 4.3*. I shall consider the proviso to clause 4.3 separately in the context of issue 2.
2. *Clause 5.1.3*. HTC rely upon clause 5.1.3 as supporting their interpretation of clause 4.3. HTC contend that clause 5.1.3 shows that the parties contemplated that UMTS might include TDMA, since otherwise it could never be backwards compatible with GSM. Philips disputes this for a number of reasons.
3. First, Philips points out that it was not necessary for backwards compatibility that UMTS should use the same over-the-air interface as GSM, or indeed TDMA at all. Indeed, as Dr Cooper accepted, UMTS was backwards compatible with GSM even though it used a different over-the-air interface. Secondly, Philips points out that a TDMA Technically Necessary Patent may not be necessary to implement the TDMA interface as opposed to some other aspect of GSM. Thirdly, Philips points out that clause 5.1.3 provides for Philips to receive fair and reasonable compensation (whereas clause 4.3 does not).
4. I am not convinced by Philips’ second point, but I agree that the first and third points undermine HTC’s reliance upon clause 5.1.3.
5. *The definition of TDMA Technically Necessary Patents*. HTC also rely upon this definition as showing that the parties contemplated that the UMTS standard might include TDMA. As Philips points out, however, the definition provides that a patent shall *not* be deemed to be TDMA Technically Necessary merely because of claimed essentiality to UMTS. It is a for-the-avoidance-of-doubt provision, and sheds little light on the issue with which I am concerned.
6. For its part, Philips points out that this definition refers to “proposals for ETSI UMTS” (plural) whereas the definition of CDMA Wireless Industry Standard refers to “proposal” (singular). Philips argues that this supports its contention that the latter definition was only intended to refer to the Alpha concept. I do not accept this. The difference is more likely to be due to a failure to revise all the relevant parts of the 1998 Agreement following the January 1998 meeting, or even just a typographical error. In any event, it simply does not show that the definition in question was only intended to refer to the Alpha concept.

*Extrinsic evidence*

1. Philips relies upon a number of aspects of extrinsic evidence in support of its interpretation. HTC take issue with Philips’ case on extrinsic evidence, but save in one respect do not advance a positive case of their own relying upon extrinsic evidence.
2. First, Philips relies upon its evidence as to the parties’ purposes in entering into the 1998 Agreement. This is that Philips’ purpose was essentially to obtain a licence in respect of cdmaOne/IS-95, a pure CDMA system, whereas it wanted to exclude TDMA from the 1998 Agreement. Qualcomm’s strategy was to support worldwide adoption of its CDMA technology, instead of GSM or TDMA. As a result, Qualcomm required counterparties to grant it rights in relation to cdmaOne/IS-95, but it had no need to obtain rights in relation to TDMA or hybrid systems.
3. Against this, HTC contend that Philips would have wanted and needed a licence which covered UMTS whether it was a pure CDMA system or a hybrid and that Qualcomm’s interests extended beyond pure CDMA systems and included implementing UMTS.
4. Secondly, Philips relies upon the fact that it was only late in the negotiations that Qualcomm required that references to the proposed ETSI UMTS standard be added to the agreement. Philips accepts that it may be inferred that Qualcomm perceived a benefit in obtaining rights under Philips’ (limited) CDMA portfolio which were relevant to that standard, but argues that this may be explained by the fact that the Alpha concept was a CDMA system.
5. Thirdly, Philips relies upon the fact that no royalties are payable to Philips, nor is there any reduction in the royalties payable to Qualcomm, under the 1998 Agreement, and specifically clause 4.3. Philips contends that it would be commercially unreal for clause 4.3 to be interpreted as extending beyond pure CDMA systems in those circumstances.
6. Fourthly, Philips relies upon the subsequent conduct of the parties, and in particular Qualcomm. In so-called White Papers summarising third party intellectual property rights benefitting Qualcomm’s customers dated January 2004, July 2004 and January 2008, Qualcomm stated that third parties were only getting rights under clause 4.3 in relation to pure CDMA standards.
7. I accept that each of these points provides support for Philips’ interpretation of clause 4.3, and in particular the third and fourth points.
8. For their part, HTC rely upon the SULA, which post-dates the 1998 Agreement, by way of extrinsic evidence. Clause 5.9 of the SULA contains a warranty by Qualcomm that Philips has covenanted not to assert any of Philips’ CDMA Technically Necessary Patents (as defined in the SULA) against HTC’s manufacture, use, sale or importation of Qualifying Subscriber Units solely for Wireless Applications. As Philips accepts, it can be seen from the definition of Wireless Applications, which in turn depends on the definition of Common Air Interface, that clause 5.9 extends to hybrid CDMA systems such as TD-SCDMA. Philips argues that, as a later agreement between different parties, this carries little weight, particularly in the light of the stance adopted by Qualcomm in the White Papers. I agree with this.

*Construction contra proferentem*

1. Philips contends that, to the extent that the expression “the proposed ETSI UMTS standard” is ambiguous, it should be construed against the interests of Qualcomm, which was responsible for the uncertainty as the party which introduced this language. Accordingly, the definition of CDMA Wireless Industry Standard, and hence clause 4.3, should be narrowly construed as confined to pure CDMA standards. Furthermore, Philips argues that it would also be in Philips’ interests for clauses 3.2 and 5.1 to be construed in the same way. In the case of clause 3.2, the narrower construction would lead to a lower royalty burden for Philips. In the case of clause 5.1, the narrower construction would reduce the ambit of Qualcomm’s royalty-free cross-licence.
2. HTC argue that it would be in Philips’ interests for the definition to be widely construed, since that would affect the breadth of the licence granted by Qualcomm to Philips under clause 3.1.1 of the 1998 Agreement. But this assumes that any advantage to Philips in having a wider licence under Qualcomm’s patents with respect to hybrid systems, and in particular hybrid UMTS systems, would outweigh the disadvantages identified by Philips. I am not convinced of this.

*Conclusion*

1. In my judgment the definition of CDMA Wireless Industry Standard is reasonably susceptible of both parties’ interpretations. HTC’s strongest points are that it expressly includes “the proposed ETSI UMTS standard” and its “subsequent releases, revisions and derivations” and that, by the date of the 1998 Agreement, it was known that UMTS would include the Delta concept, which was a hybrid system. On the other hand, the closing words of the definition indicate that standards which include TDMA are not covered. In these circumstances it is legitimate to turn to the extrinsic evidence to resolve the ambiguity. As discussed above, I consider that the extrinsic evidence supports Philips’ case as to what the parties intended. I do not consider that it is necessary to resort to the *contra proferentem* rule; but if it is, I consider that this also supports Philips’ case. Accordingly, I conclude that the definition of CDMA Wireless Industry Standard is to be construed in manner contended for by Philips, that is to say, as being restricted to pure CDMA standards (in the sense explained above). Since HSPA is not a pure CDMA system, the Patents are not covered by clause 4.3.

Issue 2: Is HSPA within the proviso to clause 4.3?

1. For the purposes of considering this issue and issue 3, I shall assume, contrary to the conclusion I have reached above, that HSPA is within the definition of CDMA Wireless Industry Standard. Philips contends that, even on that assumption, the proviso to clause 4.3 excludes HSPA because it is a TDMA system, albeit a hybrid TDMA/CDMA system. Indeed, HSDPA uses time division as the primary multiple access technique, with only limited code division.

*The wording of the proviso*

1. *The general words*. The words “any TDMA equipment or system” could mean any pure TDMA system or could include any hybrid TDMA system. As with the definition of CDMA Wireless Industry Standard, it is necessary to read on and consider the examples which are given.
2. *GSM, IS-54, PCS-1800 and PCS-1900*. As discussed above, GSM is a hybrid TDMA/FDMA system. The same is true of IS-54, PCS-1800 and PCS-1900. Given that the specific examples listed are all hybrid systems, the general words must have been intended to embrace hybrid systems. If the general words embrace hybrid TDMA/FDMA systems, they are equally capable of embracing hybrid TDMA/CDMA systems.
3. HTC point out that the proviso is a belt-and-braces or for-the-avoidance-of doubt provision. I accept that, but I do not see how this helps HTC. The literal meaning of the proviso is consistent with the body of clause 4.3 as I have construed it. Even if it is not, it must be given effect to. HTC also say that the purpose of excluding TDMA from clause 4.3 was to protect Philips’ GSM licensing programme. No doubt that was a key part of the purpose, but the proviso is not limited to GSM, and Philips’ interests in hybrid TDMA systems extended beyond GSM. Finally, HTC argue that Philips’ construction of the proviso would render clause 4.3 nugatory or uncertain. I disagree.

*Extrinsic evidence*

1. Philips relies upon essentially the same extrinsic evidence as in relation to the first issue. I agree that this supports Philips’ construction of the proviso. In particular, Philips had a clear commercial reason for excluding both pure and hybrid TDMA systems from the scope of clause 4.3 and Qualcomm’s focus was upon pure CDMA systems.

*Construction contra proferentem*

1. HTC rely upon the *contra proferentem* rule. There is no dispute that the proviso was inserted at the behest of Philips. I do not consider that it is necessary to resort to the *contra proferentem* rule in order to interpret the proviso, however.

*Conclusion*

1. In my judgment both the wording of the proviso and the extrinsic evidence support Philips’ interpretation. I conclude that the effect of the proviso is to exclude hybrid systems which include TDMA, and hence HSPA, from clause 4.3.
2. Given my conclusions in relation to the first two issues, I shall only consider the remaining two issues briefly.

Issue 3: Are the Patents CDMA Technically Necessary Patents?

1. It is common ground that it is possible to make a UMTS-compliant mobile phone that does not support HSPA. In that sense, the relevant parts of the UMTS standard are optional. Philips contends that it follows that the Patents are not CDMA Technically Necessary Patents because they are not “essential to the manufacture … of Subscriber Units … which … comply with the specifications of a CDMA Wireless Industry Standard … (i.e. must necessarily be infringed upon in order to comply with the applicable CDMA standard).” HTC dispute this. The issue is whether the reference to the applicable standard includes optional parts of the standard or is limited to mandatory parts of the standard.
2. HTC contend that there is a short-cut on this point, because the definition includes patents which are claimed to be essential to any such standard, and Philips has claimed the Patents to be essential. Philips disputes that any short-cut is available on the ground that its claim to ETSI that the Patents are essential for the purposes of the ETSI IPR policy does not necessarily mean that they are essential within the meaning of the definition in the 1998 Agreement. As HTC point out, however, Philips has also claimed that the Patents are essential to UMTS as part of its infringement case in this litigation. Accordingly, I agree with HTC that it follows that the Patents are CDMA Technically Necessary Patents.
3. In any event, I agree with HTC that, for most if not all of the reasons they give, the only rational construction of the definition is that “standard” includes the optional parts of such standards.
4. Philips relies upon various aspects of extrinsic evidence in support of its interpretation, but I do not find the extrinsic evidence persuasive on this issue. In particular, I do not see how the ETSI IPR policy can be irrelevant, as Philips argues, given the repeated references to both GSM and the proposed ETSI UMTS standard in the 1998 Agreement. Nor do I agree that the definition of essentiality should be taken to replicate the TIA IPR policy as at the date of the 1998 Agreement, given that the TIA policy is not incorporated or referred to.
5. Philips also relies upon the *contra proferentem* principle given that the relevant language was proposed by Qualcomm. In my view it is not necessary to resort to the *contra proferentem* principle, however.

Issue 4: Does clause 4.3 extend to chipsets purchased from third parties?

1. Philips contends that clause 4.3 only applies to third parties insofar as they are dealing in Qualcomm Licensed Products. Philips accepts that there is no express language in clause 4.3 to this effect, but Philips relies upon the limitation in clause 5.1, which contains the primary licence grant from Philips to Qualcomm. Philips contends that it would be very surprising if the parties had intended third parties to benefit from the equivalent of a royalty-free licence from Philips in respect of products which do not contain any component supplied by Qualcomm, as that would be contrary to both parties' commercial interests. I agree with this.
2. Philips also contends that its interpretation is supported by extrinsic evidence, namely the post-contractual conduct of the parties prior to any dispute arising. In particular, Philips relies upon the terms of notification letters under clause 4.3 sent by Qualcomm to Philips between 2000 and August 2008, upon statements made by Qualcomm in its White Papers from 2004 to 2008 and upon the terms of the SULA, all of which indicate that Qualcomm considered that clause 4.3 was limited to Qualcomm Licensed Products. I agree that this evidence supports Philips’ interpretation.
3. Accordingly, I conclude that, if clause 4.3 extended to HTC’s acts of infringement complained of in these proceedings at all, it would only apply to acts relating to Qualcomm-based products.

Overall conclusion

1. For the reasons given above, I conclude that clause 4.3 of the 1998 Agreement does not extend to HTC’s acts of infringement complained of by Philips in these proceedings.