1 QUINN EMANUEL URQUHART & SULLIVAN, LLP
   Charles K. Verhoeven (Cal. Bar No. 170151)
2 charlesverhoeven@quinnemanuel.com
   50 California Street, 22nd Floor
3 San Francisco, California 94111
   Telephone: (415) 875-6600
4 Facsimile: (415) 875-6700

5 Kevin P.B. Johnson (Cal. Bar No. 177129)
   kevinjohnson@quinnemanuel.com
6 Victoria F. Maroulis (Cal. Bar No. 202603)
   victoriamaroulis@quinnemanuel.com
7 555 Twin Dolphin Drive 5th Floor
   Redwood Shores, California 94065
8 Telephone: (650) 801-5000
   Facsimile: (650) 801-5100
9
   Michael T. Zeller (Cal. Bar No. 196417)
10 michaelzeller@quinnemanuel.com
   865 S. Figueroa St., 10th Floor
11 Los Angeles, California 90017
   Telephone: (213) 443-3000
12 Facsimile: (213) 443-3100

13 Attorneys for SAMSUNG ELECTRONICS
   CO., LTD., SAMSUNG ELECTRONICS
14 AMERICA, INC. and SAMSUNG
   TELECOMMUNICATIONS AMERICA, LLC
15

16   UNITED STATES DISTRICT COURT

17   NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

18 APPLE INC., a California corporation,   CASE NO. 11-cv-01846-LHK

19   Plaintiff,   **SAMSUNG'S OPENING CLAIM
                                                  CONSTRUCTION BRIEF**
20   vs.
                                                  Date: January 20, 2012
21 SAMSUNG ELECTRONICS CO., LTD., a   **Time: 10:00 am**
   Korean business entity; SAMSUNG   **Place: Courtroom 8, 4th Floor**
22 ELECTRONICS AMERICA, INC., a New   **Judge: Hon. Lucy H. Koh**
   York corporation; SAMSUNG
23 TELECOMMUNICATIONS AMERICA,
   LLC, a Delaware limited liability company,   <mark>**SUBMITTED UNDER SEAL**</mark>
24
              Defendants.
25

26

27

28

02198.51845/4468852.5
                                                        Case No. 11-cv-01846-LHK
                              SAMSUNG'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Defendants and counterclaimants Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC (collectively "Samsung") respectfully submit this opening brief on two disputed claim terms from two of the 12 Samsung utility patents infringed by Apple Inc. ("Apple"). The two terms at issue are "symbol" as used in the U.S. Patent No. 7,200,792 (the "'792 Patent") and "applet" as used in U.S. Patent No. 7,698,711 (the "'711 Patent"). Samsung's interpretation of these two terms finds full support in the claim language, specification, and prosecution history. It is also supported by dictionary definitions, and expert and inventor testimony. By contrast, Apple's definitions are litigation-inspired attempts to avoid infringement. The Court should reject Apple's efforts to artificially narrow the claims and should construe the terms in accordance with the intrinsic record and qualifying extrinsic evidence.

II. BACKGROUND REGARDING THE SAMSUNG PATENTS IN SUIT

In 1991, more than 15 years before Apple announced its first phone, Samsung began developing mobile phone technology. Samsung has since invested billions of dollars researching and developing patented technologies necessary to practice modern wireless standards as well as novel feature technology. From 2005 through 2010 alone, Samsung invested more than $35 billion in research and development. More than a quarter of Samsung employees – over 50,100 engineers overall, including about 8,700 who work in telecommunications – engage daily in cutting-edge research and development projects. By 2008, Samsung surpassed the 800 million mark in the number of mobile phones manufactured.

A. Samsung's Standards Essential Patents

Many of Samsung's technological innovations have been incorporated into mobile device standards, which define the protocols for transmitting information wirelessly and ensure that mobile devices made by different manufacturers can operate together within a wireless network. Because interoperability is essential for wireless communications, technical standards are needed to ensure an efficient and functional system. Samsung has been a leader in developing the ideas

1 and protocols needed to increase the efficiency, reliability, and functionality of standards-based

2 wireless networks and the features available in these networks.

3   The standards organization that develops technical standards for mobile communications

4 systems is called the 3rd Generation Partnership Project (3GPP). Samsung joined 3GPP in 1998

5 – the same year 3GPP was created – and has played a critical role in developing the 3GPP

6 standard. Samsung's sustained investment in mobile communications research and development

7 has generated numerous technological advances, including thousands of Samsung patents. Many

8 of these advances have been incorporated into the 3GPP standard, and 3GPP has recognized

9 hundreds of Samsung patents as essential to the 3GPP standard. Samsung has asserted seven

10 such standard essential patents in this action, including the '792 Patent. Because the 3GPP

11 standard defines how information is transmitted over a mobile network, Samsung's standards

12 essential patents are necessarily infringed by products that comply with the 3GPP standard.

13 Apple's own expert, Richard Gitlin, acknowledges this. Deposition of Richard D. Gitlin ("Gitlin

14 Dep.") at 12:16-25 (Briggs Decl. at Ex. D).[1]

15   Apple was a late arrival to the mobile communication device market. Apple did not enter

16 this market until 2007 when it released the iPhone. However, Apple made its mobile devices

17 3GPP compliant without securing necessary patent licenses, including licenses from Samsung. In

18 doing so, Apple necessarily infringed and continues to infringe on hundreds of Samsung's

19 standards essential patents worldwide, including the standards essential patents asserted in this

20 action. By taking advantage of the pre-existing 3GPP infrastructure without paying royalties,

21 Apple has been free-riding on Samsung's and other companies' investments in and contributions

22 to mobile communications technology.

23   **B. <u>Samsung's Feature Patents</u>**

24   Samsung has asserted five feature patents against Apple in this action, including the '711

25 Patent. Samsung's feature patents cover aspects that are critical to the use and enjoyment of

26

27   [1] Citations to "Briggs Decl. Ex. ___" refer to the Declaration of Todd M. Briggs in Support
    of Samsung's Opening Claim Construction Brief and the exhibits thereto.

28

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1 Apple's iPhone, iPad and iPod products. These patents provide the user with the ability to fully

2 utilize the features and capabilities of today's smart phones, tablet computers, and music players.

3 Samsung's patents provide functionalities essential to the user experience for these devices,

4 including such fundamental features as the ability to play music on a mobile device while

5 performing other tasks, the simultaneous generation and display of the time in various locations in

6 the world, the ability to email photographs taken using the device, and the ability to show

7 messages on one part of a display while allowing a user to view other functions on another part of

8 the display. The inventions disclosed in Samsung's feature patents have become integral parts of

9 the user experience and are demanded by consumers. They are what makes today's phone a

10 "smartphone." Apple realized the importance of the features covered by Samsung's patents and

11 incorporated them into its mobile communication devices.

12 **III.   CLAIM CONSTRUCTION LAW**

13   Claim construction is a matter of law to be determined by the Court. *Markman v.*

14 *Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370

15 (1996). "It is well-settled that, in interpreting an asserted claim, the court should look first to the

16 intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in

17 evidence, the prosecution history. Such intrinsic evidence is the most significant source of the

18 legally operative meaning of disputed claim language." *Liquid Dynamics Corp. v. Vaughan Co.,*

19 *Inc.*, 355 F.3d 1361, 1367 (Fed. Cir. 2004) (quoting *Vitrionics Corp. v. Conceptronic Inc.*, 90 F.3d

20 1576, 1582 (Fed. Cir. 1996)). In addition to such intrinsic evidence, a court may rely on extrinsic

21 evidence, such as dictionaries and treatises, to shed light on the claimed technology. *Phillips v.*

22 *AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005). However, such evidence is considered "less

23 significant than the intrinsic record" and "less reliable than the patent and its prosecution history in

24 determining how to read claim terms." *Id.* at 1317-18.

25   "[A] district court is not obligated construe terms with ordinary meanings, lest trial courts

26 be inundated with requests to parse the meaning of every word in the asserted claims." *O2 Micro*

27 *Int'l Ltd. v. Beyond Innovation Technology Co., Ltd.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008).

28 "[D]istrict courts are not (and should not be) required to construe *every* limitation present in a

1 patent's asserted claims." *Id.* at 1362. A finding that a claim term "needs no construction" or

2 has the "plain and ordinary meaning" may be inadequate where the plain and ordinary meaning

3 fails to resolve the parties' dispute. *Id.* at 1361. However, a finding of "plain and ordinary

4 meaning" is sufficient where the court rejects the opposing party's claim construction. *See*

5 *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (upholding a

6 finding of "plain and ordinary meaning" where the district court rejected Defendant's claim

7 construction and prevented courtroom argument regarding the meaning of the term).

8 **IV.   U.S. PATENT NO. 7,200,792**

9   **A.   Introduction to the '792 Patent**

10   The '792 Patent, entitled "Interleaving Apparatus and Method for Symbol Mapping in an

11 HSDPA Mobile Communication System," is a standards essential patent that describes novel

12 techniques for interleaving and deinterleaving data in a mobile communication system. The '792

13 Patent is one of a series of patents filed by Samsung that relate to cutting-edge technology

14 developed by Samsung called "symbol mapping based on bit priority" or "SMP." SMP

15 significantly improves the performance of wireless data transmissions, by utilizing the fact that

16 some bits represented by a symbol are less prone to error than others. SMP revolutionized data

17 transmission, and its incorporation into 3GPP was cited in major publications. Deposition of

18 Hun-Kee Kim, Rough Tr. at 54:15-55:12 (Briggs Decl. Ex. A); SAMNDCA00146000 (Briggs

19 Decl. Ex. B); "Samsung Electronics' Asynchronous IMT-2000 Technology Adopted as

20 International Standard Specification," September 20, 2002, iNews24.com (Briggs Decl. Ex. C).

21 SMP technology, including the '792 Patent, was accepted as essential to the 3GPP mobile

22 communication standard, and consequently Apple's products necessarily practice the '792 Patent.

23 Deposition of Richard D. Gitlin ("Gitlin Dep.") at 12:16-25 (Briggs Decl. Ex. D).

24   As a general matter, mobile communication devices communicate by transmitting and

25 receiving radio frequency signals. Declaration of Richard Wesel In Support of Samsung's

26 Proposed Claim Construction for U.S. Patent No. 7,200,792 ("Wesel Decl.") at ¶15. The

27 properties of these signals are altered, or "modulated," in order to represent bits of information.

28 *Id.* This is somewhat similar to the way radio works by modulating the amplitude (AM) or

frequency (FM) of a signal to send information. However, in digital communications, unlike with analog radio, the signals represent a number of bits of information – in other words, a set of 1's and 0's.

In digital communications systems, data is first encoded using an encoder. This adds additional bits called parity bits that allow for the correction of errors that may occur during transmission. The bits are then "interleaved," or jumbled up, so that any errors that occur will be more widely distributed and easier to correct. A modulator then receives the bits output from the interleaving process and performs a digital-to-analog conversion. This produces a modulated analog signal known as a symbol for wireless transmission.

In this context, a "symbol" is widely understood to describe a modulated signal representing a number of bits of information. Wesel Decl. at ¶15. The modulation technique specifies the number of distinct modulations, or "symbols," that are used. Using more distinct symbols allows each symbol to represent a greater number of bits, as shown below.

Modulation Technique	Number of Distinct Symbols	Number of Bits Represented by Each Symbol
BPSK	2	1
QPSK	4	2
8PSK	8	3
16QAM	16	4
64QAM	64	6

As shown below for the example of 16QAM, the graphical depiction of these symbols is typically in the form of a two-dimensional graph known as a "signal constellation" of symbols, where the amplitude and the angle (or phase) is used to show the separate signals. Each point represents a symbol and corresponds to the amplitude and phase of an analog signal. For instance, the farther away from the center a point is, the greater its amplitude. Each distinct symbol represents a number of bits. In our example, the symbol on the top-right corner has been designated as representing a four bit value, 0-1-1-1. Other symbols have other unique 4-bit values.
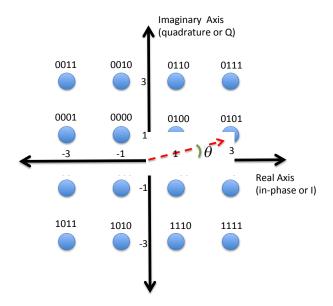
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Imaginary Axis
(quadrature or Q)

0011　　0010　　0110　　0111

0001　　0000　　0100　　0101

θ

Real Axis
(in-phase or I)

1011　　1010　　1110　　1111
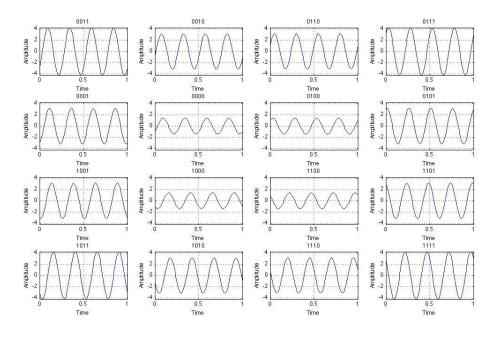
Fig. 1 – Signal Constellation Diagram

Fig. 2 – Analog Signal Corresponding to Each Symbol

The array of waves above offer a more intuitive understanding of the signal constellation. Each waveform in Fig. 2 is the analog signal corresponding to the point on the signal constellation in Fig. 1. For example, consider the symbol in Fig. 1 corresponding to 0-1-0-1 (with a red arrow). The distance between the symbol point and the center (i.e. the length of the red arrow in Fig. 1) corresponds to the amplitude (or size) of the signal in Fig. 2. The further away from the

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center, the higher the amplitude. By comparison, because the point representing the 0-1-1-1 symbol on the upper right corner of Fig. 1 is even further away from the center, it represents a signal of even higher amplitude. (Similarly, the angle/phase represents the amount by which the signal is shifted left or right.)

To summarize, each point on the signal constellation – each distinct symbol – has a unique analog signal. The symbol **represents** a sequence of bits (such as 0-1-0-1 or 0-1-1-1) as depicted by Fig. 1. However, each symbol actually **is** a signal that has been modulated (altered) to change its amplitude and phase. It is these signals/symbols, and not a pattern of 0's and 1's, that are transmitted to allow wireless communication.

B. "Symbol"

Samsung's Proposed Construction	Apple's Proposed Construction
Plain and ordinary meaning If the court decides a construction is necessary: "a modulated signal representing a number of bits specified according to the modulation technique."	"a modulated pattern in a sequence of such patterns that represents a plurality of bits"

The term "symbol" appears in claims 11 and 14 of the '792 Patent. Claim 11 is provided below for context.

11. An apparatus for receiving data in a communication system, comprising:

a demodulator for demodulating a received **symbol** into a plurality of systematic bits and parity bits;

a first deinterleaver for writing the plurality of systematic bits on a column by column basis and performing inter-column permutation;

a second deinterleaver for writing the plurality of parity bits on a column by column basis and performing inter-column permutation;

a rate matcher for rate matching the de-interleaved systematic bits and parity bits; and

a decoder for decoding the rate matched systematic bits and parity bits, wherein a size of the first deinterleaver is equal to a size of the second deinterleaver.

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1   No construction of this term is necessary because it has a well-understood meaning in the

2 art.   However, if the Court determines that this term does require construction, Apple's

3 construction should be rejected as it contains limitations that are nonsensical, unnecessary, and

4 find no support in the intrinsic or extrinsic evidence.   Samsung's alternative construction, on the

5 other hand, finds complete support in the intrinsic and extrinsic evidence.

6   **1.   "Symbol" Should be Given Its Plain and Ordinary Meaning**

7   The term "symbol" should be given its plain and ordinary meaning and need not be further

8 construed.   In the field of communications, "symbol" is a ubiquitous and well-understood term.

9 Wesel Decl. at ¶14.   Indeed, Dr. Gitlin himself uses "symbol" without definition in his textbook.

10 *See* Gitlin, Hayes and Weinstein, DATA COMMUNICATIONS PRINCIPLES, Kluwer Academic/Plenum

11 Publishers (1992) ("Gitlin et. al., DATA COMMUNICATIONS PRINCIPLES") (Briggs Decl. Ex. E);

12 Wesel Decl. at ¶14.   As discussed above, mobile communication devices generally communicate

13 by transmitting and receiving modulated signals.   Wesel Decl. at ¶15.   These modulated signals

14 are known as "symbols" and each symbol represents a number of bits specified according to the

15 modulation technique.   *Id*.   Claims 11 and 14 use "symbol" in this well-understood manner.

16 The specification also uses "symbol" in an ordinary sense.   *See, e.g.* '792 Patent at 21:48-51

17 (describing how a "received signal" is in the form of a symbol).

18   **2.   If the Court Determines that "Symbol" Warrants Construction, the**
                        Intrinsic and Extrinsic Evidence Support Samsung's Alternative
19   **Construction**

20   If the Court determines a construction of "symbol" is necessary, "symbol" should be

21 construed consistent with its ordinary meaning: "a modulated signal representing a number of bits

22 specified according to the modulation technique."   Samsung's proposed alternative construction

23 is consistent with how a person of ordinary skill in the art would understand the term.   Apple's

24 proposed construction, in contrast, adds three unnecessary and unsupportable limitations.

25   **(a)   A symbol is "a modulated signal" and not "a modulated**
                           pattern"
26

27   A symbol is a "signal."   Wesel Decl. at ¶16.   Although it may represent a series or pattern

28 of bits, a "symbol" is not itself a "pattern."   *Id.*   This is consistent with the plain and ordinary

meaning of symbol, as supported by the intrinsic evidence. For instance, Claims 11 and 14 require "demodulating a received **symbol**." '792 Patent at Claims 11 and 14 (Briggs Decl. Ex. G). In order to be "received," a "symbol" must first have been transmitted. This requires that the symbol be a signal. *Id.* at ¶17. A "pattern," on the other hand, may or may not be capable of transmission. The claim language also specifies that the received symbol is converted (demodulated) into "a plurality of systematic bits and parity bits." *Id.* The ordinary meaning of "demodulating" requires a demodulator to receive a modulated signal. *Id.*

The specification strongly confirms that symbols are a type of signal. The specification closely tracks the language of Claims 11 and 14 describing "symbol," explaining that a symbol is a modulated signal. A comparison between the specification and the claims removes any doubt that they are discussing the same signal/symbol:

'792 Patent, 21:48-51	Claim 11	Claim 14
"Since a **received signal** is in the form of a symbol modulated in the transmitter, the received signal is first **demodulated** by a demodulator and then provided to a **deinterleaver**."	"An apparatus for receiving data in a communication system comprising: a demodulator for **demodulating** a **received symbol** into a plurality of systematic bits and parity bits; a first **deinterleaver** …"	"A method for receiving data in a communication system, comprising: **demodulating** a **received symbol** into a plurality of systematic bits and parity bits; writing the plurality of systematic bits on a column by column basis in a first **deinterleaver**…"

The extrinsic evidence also confirms that a "symbol" is ordinarily a "signal," and not a "pattern." Apple's expert, Dr. Gitlin, uses "symbol" and "signal" interchangeably in his textbook. *See, e.g.* Gitlin et al., DATA COMMUNICATIONS PRINCIPLES at 72-78 (Briggs Decl. Ex. E); Gitlin. Dep. at 93:6-94:13. This is because "symbol" ordinarily refers to a "modulated signal." However, Dr. Gitlin does not use "pattern" in the same manner. *See* Gitlin Dep. at 95:16-21. Indeed, Dr. Gitlin cannot cite *any* examples in the intrinsic or extrinsic evidence where "pattern" is used to refer to a "symbol." *See, e.g. id*. at 98:1-17. Dr. Gitlin's declaration also refers to a "signal constellation of symbols." Declaration of Prof. Richard D. Gitlin in Support of Apple's Proposed Claim Construction for U.S. Patent No. 7,200,792, dated November 14, 2011

1 ("Gitlin Decl."), at ¶57; Wesel Decl. at ¶21. Consistent with its plain meaning, the Court should
2 construe "symbol" as a signal, not a pattern.

3   Apple seeks to uphold its position that a "symbol" is a "pattern" by focusing on other
4 specification language that discusses "symbol pattern." However, "symbol pattern" refers to the
5 pattern of bits that are then mapped onto a symbol. *See* Wesel Decl. at ¶23-25, '792 Patent at
6 10:53-56, 20:13 (describing the use of "symbol pattern" to refer to systematic and parity bits).
7 Dr. Gitlin himself uses the term "pattern" to refer to a pattern of bits that are input into a
8 "mapper." Gitlin Dep. at 62:23-63:1 (Q: Okay. So when you use the term "pattern," that's
9 referring to the pattern of bits that are input into the mapper? A: Yes.). Since "pattern" refers to
10 a pattern of bits, "pattern" cannot refer to a "symbol" because both Apple and Samsung agree that
11 a symbol *represents* a number of bits.

12   In order to salvage its defective argument, Apple claims that a "modulator" is not a
13 modulator. Instead, Apple proposes that a "modulator" is a mapper. *See, e.g.* Gitlin Dep. at
14 56:19-57:1, 114:1-16 (describing the alleged use of the term "modulator" to mean "mapper," and
15 "demodulator" to mean "demapper"). Apple's interpretation of "modulator" is incorrect. The
16 plain language of the claims speak of demodulating a "received symbol." '792 Patent, Claims 11
17 and 14. Again, in order to be received, a symbol must be transmitted. That transmission can
18 only happen if a modulator modulates a signal. Unsurprisingly, "modulator" is properly
19 interpreted as a "modulator," and not a "mapper."

20   **(b)   A symbol is a signal "representing a number of bits specified
                      according to the modulation technique," not a sequence of
21   patterns "that represents a plurality of bits."**

22   A symbol represents a number of bits specified according to the modulation technique used
23 to generate the symbol. In plain and ordinary usage, a symbol could represent just one bit, such
24 as under BPSK (Binary Phase-Shift Keying). Wesel Decl. at ¶26. It could represent 6 bits,
25 under 64QAM (64-ary Quadrature Amplitude Modulation). *Id.* Regardless, the number of bits
26 in a symbol is specified by the modulation technique. *Id.* This is confirmed by the language of
27 the claims and specification. *See, e.g.*, '792 Patent at Claim 10 ("if the modulation scheme is
28 16QAM… mapping onto one modulation symbol 2 bits from the first interleaver and 2 bits from

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1   the second interleaver), '792 Patent at 22:11-13 ("The DEMUX demultiplexes as many input bits

2   as a prescribed number **according to a modulation technique**."). Dr. Gitlin fully agrees that

3   "symbol" ordinarily includes symbols that represent only one bit. As he states, **"[O]ne of**

4   **ordinary skill in the field of the '792 Patent would be aware of symbols that do not represent**

5   **a plurality of bits."** Gitlin Decl. at ¶53; *see also* Wesel Decl. at ¶32. Indeed, Dr. Gitlin agrees

6   with Samsung's proposed language, "representing a number of bits specified according to the

7   modulation technique." Gitlin Dep. at 120:25-121:10. (Q: I mean, would you agree that a

8   symbol represents a number of bits specified according to a modulation technique? A: Yes. Q.

9   Okay. So your real issue with Samsung's proposed construction is the portion that states "a

10 modulated signal"? A: Yes.)

11   Apple argues that the '792 deviates from this plain and ordinary meaning and adopts a

12 special definition of "symbol," as representing a "plurality of bits." However, Apple is

13 improperly limiting the definition of "symbol." Samsung acknowledges that Claims 11 and 14

14 include limitations requiring a "plurality of ... bits." However, these limitations are found in other

15 claim terms, not the term "symbol." Wesel Decl. at ¶33. Claim 11 reads "... a demodulator for

16 demodulating a received symbol into a **plurality** of systematic bits and parity bits." If "symbol"

17 inherently meant signals representing "a plurality of bits," then the use of "plurality" in Claim 11

18 would be redundant. *Id.* In other words, "symbol" is used according to its plain and ordinary

19 meaning, even though Claims 11 and 14 as a whole refer to a "plurality of ... bits." *Id.* In

20 contrast, Apple's construction contradicts the plain and ordinary meaning. The Court should

21 reject Apple's position and find that no construction of "symbol" is necessary.

22   **(c)   A symbol is not "in a sequence" of such symbols**

23   Apple's position, that a symbol must be "in a sequence" of such symbols, should also be

24 rejected because it is contrary to the plain and ordinary meaning of symbol and not supported by

25 the evidence. A symbol can appear alone, outside of a sequence. Gitlin Dep. at 100:13-17. It is

26 true that a symbol typically appears in a sequence of symbols when transmitting data. Wesel

27 Decl. at ¶35. Indeed, the deinterleavers described in Claims 11 and 14 operate on sequences of

28 symbols, because the deinterleaving process only makes sense in the context of a sequence of

1   symbols. *Id.* However, this limitation does not extend to the term "symbol." A symbol does

2   not cease to be a symbol simply because it is by itself. Wesel Decl. at ¶36. As an analogy,

3   words often appear in a sequence of words, as in a sentence or a paragraph. However, a word

4   standing alone is still a word. Wesel Decl. at ¶34. One would not define "word" by stating that

5   a word appears in a sequence of words. *Id.* Likewise, it would be improper to define "symbol"

6   by stating that a symbol appears in a sequence of symbols. A "symbol" is still a "symbol," even

7   if it does not appear "in a sequence" of symbols.

8   ## V.   U.S. PATENT NO. 7,698,711

9   ### A.   Introduction to the '711 Patent

10 The '711 Patent, entitled "Multi-Tasking Apparatus and Method in Portable Terminal,"

11 describes an "apparatus and method capable of performing multiple tasks in a portable terminal …

12 in which the menu functions of the portable terminal can be implemented while continuing to play

13 the music." '711 Patent Abstract (Briggs Decl. Ex. H). The apparatus and method of the '711

14 Patent were invented to address the problem of users' inability to multi-task while listening to

15 music in the background. In the prior art, users could not "simultaneously work on several menus

16 of the portable terminal while listening to the music using the conventional MP3 music function."

17 '711 Patent at 1:39-41. The '711 Patent solved this problem by disclosing an apparatus and

18 method by which "menu functions of the portable terminal can be implemented while continuing

19 to play a music file." '711 Patent at 1:58-61. The invention of the '711 patent allowed users to

20 do what consumers now take for granted: schedule appointments, email, and look at their photos

21 while listening to their favorite songs.

22 One of the features that distinguishes the invention disclosed in the '711 Patent is its use of

23 applets to offer the user a rich multi-tasking experience. The music background player not only

24 contains the ability to play music while the user multi-tasks, but it also contains application

25 modules and applets that allow the user to access many different types of programs and menus, all

26 while still listening to MP3 files. '711 Patent Col. 3:8-14, Fig. 2. Unlike the prior art, which

27 was limited in what type of multi-tasking could be performed, the '711 Patent's use of applets to

28 integrate full multi-tasking functionality created an enhanced user experience.

B. "Applet"

Samsung's Proposed Construction	Apple's Proposed Construction
"A small application designed to run within another program."	"An operating system-independent computer program that runs within an application module."

The term "applet" appears in independent Claims 1, 9 and 17 of the '711 Patent. Claim 1 illustrates how "applet" is used in the claims:

> 1. A multi-tasking method in a pocket-sized mobile communication device including an MP3 playing capability, the multi-tasking method comprising:
>
> generating a music background play object, wherein the music background play object includes an application module including at least one **applet**;
>
> providing an interface for music play by the music background play object;
>
> selecting an MP3 mode in the pocket-sized mobile communication device using the interface;
>
> selecting and playing a music file in the pocket-sized mobile communication device in the MP3 mode;
>
> switching the MP3 mode to a standby mode while the playing of the music file continues;
>
> displaying an indication that the music file is being played in the standby mode;
>
> selecting and performing at least one function of the pocket-sized mobile communication device from the standby mode while the playing of the music file continues; and
>
> continuing to display the indication that the music file is being played while performing the selected function.

The dispute boils down to whether an "applet" must be "operating system-independent," as Apple contends, or not as Samsung contends. As explained below, nothing in the intrinsic evidence requires or even mentions operating system dependence or independence and the extrinsic evidence demonstrates that an "applet" can be either operating system dependent or independent. The Court should reject Apple's attempt to import a limitation that appears only in a cherry-picked set of extrinsic sources. Samsung's construction is supported by the intrinsic and extrinsic evidence and should be adopted by the Court.

1. **The Intrinsic Evidence Supports Samsung's Construction**

Samsung's construction is based directly on the '711 specification.

The term "applet" appears only once in the specification. That portion refers to "applet" as follows:

> FIG.1 is a block diagram of a portable terminal according to an exemplary embodiment of the present invention, in which an MP3 music control processor is not included. Application modules of the portable terminal include at least one **applet** and each of the application modules, that is each menu of the portable terminal, independently performs multi-tasking.

'711 Patent at 3:8-14 (emphasis added).

This description closely tracks Samsung's proposed construction: "A small application designed to run within another program." Nothing in the specification even remotely suggests that an "applet" must be operating system independent. In fact, the specification does not even use the term operating system.

The prosecution history also supports Samsung's construction. The term "applet" was added during prosecution at the request of the Patent Examiner. As detailed in an interview summary, the "Examiner suggested to further include the definition 'a music background play object' as 'wherein the music background play objects including an application module includes at least one applet' as argued during the interview to distinct [sic] from the icon as taught by KOKUBO." U.S. Patent Application No. 11/778,466, Examiner's Interview Summary of December 16, 2009 (Briggs Decl. at Ex. I). As a result of this request, the applicant amended the claims to include the language , "wherein the music background play object includes an application module including at least one applet." U.S. Patent Application No. 11/778,466, Applicant's December 8, 2009 Arguments/Remarks Made in an Amendment at pp. 2-4. During the amendment process, neither the examiner nor the applicant, provided a definition of the term "applet." Furthermore, the Kokubo patent, which prompted the amendment, does not disclose, or even discuss, operating system dependence or independence. The prosecution history thus confirms that inclusion of the term "applet" in the '711 patent had absolutely nothing to do with dependence on or independence of a particular operating system.

The extrinsic evidence confirms that Apple's construction is improper. As explained by Samsung's expert, Joe Tipton Cole, one of ordinary skill in the art would have understood that there were many different types of applets written in many different types of languages and that those applets may be operating system dependent or independent. Cole Decl.[2] at ¶¶ 49-58. Thus, one skilled in the art would have been aware of the operating system dependent nature of many of the applets used in 2005. For example, there were applets that were designed specifically for the Windows environment, as well as the Linux environment, and even for Apple's own operating system environment that were operating system dependent. *Id*. at ¶¶ 65-66. When confronted with this list of applets, Apple's expert, Tony Givargis, agreed that these were examples of non-Java applets that existed in 2005, and that those in the art would be aware of these different types of applets. Deposition Transcript of Tony Givargis ("Givargis Dep.") at 30:17-33:12, 44:18-21 ("Givargis Dep.") (Briggs Decl. at Ex. F).

Supporting Mr. Cole's opinion and the contemporaneous evidence of operating system dependent applets, are the contemporaneous notes and testimony of the inventor of the '711 Patent, Moon-Sang Jeong. His notes include an entire page dedicated to applets and interfaces. While there is no mention of a specific operating system-independent or Java applet, there are dozens of other applets that have nothing to do with operating system-independent applets. *See* Cole Ex. 4 (SAMNDCA00139800). Furthermore, Dr. Joeng testified that at the time of the invention "applet" could be used in both an operating system dependent and independent fashion. Deposition of Moon-Sang Jeong at 30:15-31:1 (Cole Ex. 3). While "applet" generally could be used in both fashions, Dr. Jeong explained that he was using "applet" in an operating system-*dependent* fashion based on his development of the '711 invention in the context of his development of the Qualcomm platform that used only Qualcomm chipsets. *Id*. at 35:4-36:16. When confronted with Mr. Jeong's testimony, Dr. Givargis, admitted that the applets that Mr.

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1   Jeong was working with – i.e. the invention that would issue as the '711 patent – were *system*

2   *dependent*.   Givargis Dep. at 40:10-16.

3   **2.   Apple's Attempt To Import A Limitation From Carefully Selected
                                         Extrinsic Sources Should Be Rejected**

4

5   Apple and Dr. Givargis rely exclusively on cherry-picked extrinsic evidence relating to the

6   use of "applet" in an operating system independent fashion, such as the use of Java applets.

7   Apple and Dr. Givargis completely ignore the intrinsic evidence and the abundance of extrinsic

8   evidence establishing that applets can be operating system dependent.

9   Dr. Givargis tries to rationalize his reliance on Java-type applets by stating in his report

10   that in 2005 "mobile phone manufacturers increasingly produced Java-enabled devices."

11   Declaration of Tony Givargis, PhD in Support of Apple's Proposed Claim Construction for U.S.

12   Patent No. 7,698,711 ("Givargis Decl.") at ¶ 22.   While Dr. Givargis points to supposed trends in

13   mobile phone manufacturing to support his emphasis on Java, he is unable to point to any

14   reference to Java in the '711 Patent or any evidence that would connect the '711 Patent to Java

15   type devices.   Givargis Dep. at 35:20-36:23.   In fact, Dr. Givargis admitted that "[t]here is

16   absolutely no reference to Java" in the entire file history of the '711 patent.   *Id* at 35:20-24.   Not

17   only is there no reference to Java in the file history, but Dr. Givargis admitted that there is no

18   reference to Java in the portions of the specification and claims that refer to "applet".   *Id*. at

19   36:15-19.

20   After erroneously concluding that the "applet" of the '711 Patent refers to a Java applet,

21   Dr. Givargis uses the extrinsic sources that discuss Java applets to further narrow "applet" to

22   require "operating system-independence."   That is rather like citing only books about dogs as

23   evidence that all animals have four legs and a tail.   While Java applets are often operating system

24   independent, that is simply not true for all applets.   When asked to point out where the '711

25   Patent mentions operating system independence with regards to the term "applet," Dr. Givargis

26   admitted that there was no such language in the patent.   *Id*. at 36:15-23, 39:17-40:1.   When asked

27   the same question regarding the prosecution history, Dr. Givargis likewise failed to find any

28   support for his position.   *Id*. at 35:25-36:4.   Much like his unsupported reliance on Java, Dr.

1 Givargis has no intrinsic support for his position that "applet" is limited to "operating system-

2 independent" applets. Therefore, the Court should disregard Apple's construction. *Seachange*

3 *Intern., Inc. v. C-COR, Inc*, 413 F.3d 1361, 1376 (Fed. Cir. 2005) ("[I]t is improper to import a

4 limitation into a claim where the limitation has no basis in the intrinsic record."); *Clearwater*

5 *Systems Corp. v. Evapco, Inc.*, No. 2009-1284, 2010 WL 3448148, *6 (Fed. Cir. Aug. 30, 2010)

6 (overruling the district court's construction when an extraneous limitation was imported into the

7 claim and there was no limiting language in the claims, written description, or prosecution history

8 requiring such a limitation).

9   Not only does the intrinsic evidence not support Dr. Givargis' position, but the very

10 extrinsic evidence he cites does not support his absolute position that "applet" *must* be operating

11 system-independent. The *Java Developer's Resource* (1997) by Eliotte Harold states that Java

12 applets "**can be** independent of the host platform." Givargis Decl. at ¶ 45. Dr. Givargis also cites

13 the McGraw-Hill Dictionary of Scientific and Technical Terms (6th Ed., 2003) at page 124, which

14 defines applet as "a small program, **typically** written in Java." Givargis Decl. at ¶ 42. At best,

15 the references make general statements about **the possibility** of making applets independent of an

16 operating system, or the possibility of using Java for applets. In none of these cases is operating

17 system independence **a requirement**.

18   In short, Apple's attempt to import a limitation that has no basis in the intrinsic record

19 from selected extrinsic sources is improper and should be rejected. *See Specialty* Composites *v.*

20 *Cabot Corp.*, 845 F.2d 981, 987 (Fed. Cir. 1988) (overturning the district court's construction of

21 the term "plasticizer" that narrowed the term to "external plasticizer" when there was no evidence

22 in the intrinsic record to narrow the claim term and those skilled in the art used "plasticizer" as a

23 broad and inclusive term); *Protective Optics, Inc. v. Panoptx, Inc,* 458 F.Supp.2d 1053, 1061 -

24 1063 (N.D.Cal. 2006) ("Where a claim is expressed in general descriptive words, the court will

25 not put a narrowing modifier before an otherwise general term that stands unmodified in a claim.")

26 The Court should therefore adopt Samsung's construction of "applet" which does not import such

27 limitations and instead conforms to the general meaning of the term to one skilled in the art as

28 well as conforming with the intent and practice of the inventor of the '711 Patent.

1 **VI.   CONCLUSION**

2   For the foregoing reasons, Samsung respectfully requests that this Court adopt its claim

3   constructions for "symbol" and "applet."

4   DATED: December 8, 2011   QUINN EMANUEL URQUHART &
                                               SULLIVAN, LLP
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7   By */s/ Victoria F. Maroulis*
                                            Charles K. Verhoeven
8   Kevin P.B. Johnson
                                            Victoria F. Maroulis
9   Michael T. Zeller
                                            Attorneys for SAMSUNG ELECTRONICS
10   CO., LTD., SAMSUNG ELECTRONICS
                                            AMERICA, INC., and SAMSUNG
11   TELECOMMUNICATIONS AMERICA, LLC

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