UNITED STATES DISTRICT COURT

SOUTHERN DISTRICT OF CALIFORNIA

SPH AMERICA, LLC,

Plaintiff,

v.

ACER, INC., *et al.*,

Defendants.

Case No.: 09cv02535 CAB (KSC)

ORDER ON AGREED CLAIM CONSTRUCTIONS AND CLAIM CONSTRUCTION RULINGS FROM APRIL 10-11, 2012 MARKMAN HEARING

The Court held a claim construction hearing on April 10-11, 2012. Having considered the argument and agreements of counsel, in conjunction with the parties' claim construction briefing [Doc. Nos. 534-544, 556-557, 659], the Joint Submission of Agreed Claim Constructions and Claim Construction Rulings [Doc. No. 678], and for the reasons stated at the hearing, the Court hereby enters the claim constructions set forth below.

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U.S. Patent No. 5,960,029

Claim Term	Agreed Construction/Court's Construction
dual-channel QPSK modulator (Claims 1-5)	**AGREED CONSTRUCTION** A dual-channel QPSK modulator is a modulator where two distinct, independent data streams are Walsh coded and presented to the I and Q branches of a QPSK spreader. Different signals are presented to the I and Q branches
dual-channel QPSK modulating (Claims 14 – 18)	**AGREED CONSTRUCTION** Modulating using a dual-channel QPSK modulator as defined above
a first Walsh-spreading means for receiving first input signals through a first input terminal to carry out a Walsh-spreading; (Claims 1, 2)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: receiving first input signals through a first input terminal to carry out a Walsh-spreading. **Corresponding Structure**: multiplier (13a), and equivalents thereof.
a second Walsh-spreading means for receiving second input signals through a second input terminal to carry out a Walsh-spreading; (Claims 1, 2)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function:** receiving second input signals through a second input terminal to carry out a Walsh-spreading. **Corresponding Structure**: multiplier (13b), and equivalents thereof.

a first pseudo-modulating means for pseudo-random modulating an output of said adder means based on a certain PN code; (Claims 1, 3)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function:** pseudo-random modulating an output of said adder means based on a certain PN code. **Corresponding Structure:** multiplier (15a), and equivalents thereof.
a second pseudo-modulating means for pseudo-random modulating an output of said second Walsh-spreading means based on a certain PN code; (Claims 1, 3)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: pseudo-random modulating an output of said second Walsh-spreading means based on a certain PN code. **Corresponding Structure**: multiplier (15b), and equivalents thereof.
a first amplitude modulating means for amplitude-modulating output signals of said first pulse shaping means; (Claim 1)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function:** amplitude-modulating output signals of said first pulse shaping means. **Corresponding Structure**: multiplier (17a), and equivalents thereof.

a second amplitude modulating means for amplitude-modulating output signals of said second pulse shaping means; and (Claim 1)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function:** amplitude-modulating output signals of said second pulse shaping means. **Corresponding Structure:** multiplier (17b), and equivalents thereof.

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U.S. Patent No. RE40,385

Claim Term	Agreed Construction/Court's Construction
$W_{M,_}$ (e.g. $W_{M,n1}$, $W_{M,n2}$, $W_{M,I}$, $W_{M,Q}$) (Claims 20, 25, 31, 48, 51, 53, 54, 57, 58, 59, 61, 63, 64, 68)	**COURT'S CONSTRUCTION** An orthogonal Hadamard sequence of an entire row or column of an MxM Hadamard matrix consisting of the values of +1 and -1, although the sequence can be represented in other forms such as with 1s and 0s.
P Claims (20, 22, 31, 53)	**AGREED CONSTRUCTION** A sequence
$M_{M,n2}$ (Claim 20)	**COURT'S CONSTRUCTION** An orthogonal Hadamard sequence of an entire row or column of an MxM Hadamard matrix consisting of the values of +1 and -1, although the sequence can be represented in other forms such as with 1s and 0s.
$W_{M,I}$ and $W_{M,Q}$ are orthogonal code sequences. (Claim 20)	$W_{M,I}$ and $W_{M,Q}$ are both sequences of entire rows or columns of MxM Hadamard matrices and have a cross-correlation of zero.
complex multiplier (Claim 31, 53, 77, 84, 177, 208, 272)	A device for multiplying values in complex forms that includes multiplication and addition.
wherein $W_{M,I}$ and $W_{M,Q}$ are predetermined orthogonal code sequence permuted	wherein $W_{M,I}$ and $W_{M,Q}$ have a cross-correlation of zero and both $W_{M,I}$ and $W_{M,Q}$ are permuted.

Claim Term	Agreed Construction/Court's Construction
(Claim 31)	
First multiplier mechanism (Claims 77, 84)	This term should not be construed under 35 U.S.C. § 112, ¶ 6.
Second multiplier mechanism (Claims 77, 84)	This term should not be construed under 35 U.S.C. § 112, ¶ 6.
SC (Claims 53, 77, 82, 84, 86, 90, 118, 122, 127, 133,260, 276, 272)	**COURT'S CONSTRUCTION** A spreading sequence that has values of +1 and -1, although the sequence can be represented in other forms such as with 1s and 0s.
Systematically (Claims 90, 118, 177, 208)	**AGREED CONSTRUCTION** The desired outcome occurs in a manner that is not random or pseudo-random or the desired feature has been chosen or selected in a manner that is not random or pseudo-random
Third multiplier mechanism (Claim 118)	**AGREED CONSTRUCTION** This term is not governed by 35 U.S.C. § 112, ¶6
receive a first sequence of sequence elements, each (2N−1)th sequence element in the first sequence systematically having a first value and each (2N)th sequence element in the first sequence systematically having a second value, wherein N is a	**COURT'S CONSTRUCTION** Receiving a first sequence of sequence elements, wherein each odd-numbered sequence element in the first sequence systematically has a first value and each even-numbered sequence element in the first sequence has a second value.

Claim Term	Agreed Construction/Court's Construction
positive integer; (Claim 208)	
each (2N−1)th sequence element in the second sequence has a first value and each (2N)th sequence element in the second sequence has a second value, wherein N is a positive integer. (Claim 273)	**COURT'S CONSTRUCTION** Each odd sequence element in the second sequence has a first value and each even sequence element in the second sequence has a second value.

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U.S. Patent No. 7,443,906

Claim Term	Agreed Construction/Court's Construction
channel coding means for encoding the source data to generate (N-1) data parts and a control part (Claim 14)	This is a §112 ¶6 claim element. **Function:** encoding the source data to generate (N-1) data parts and a control part. **Corresponding Structure:** encoder (110), and equivalents thereof.
code generating means for generating spreading codes to be allocated to the channels (Claim 14)	This is a §112 ¶6 claim element. **Function:** generating spreading codes to be allocated to the channels. **Corresponding Structure:** spreading code generator (121), and equivalents thereof.
spreading means for spreading the control channel and the data channels by using the spreading codes (Claim 14)	This is a §112 ¶6 claim element. **Function:** spreading the control channel and the data channels by using the spreading codes. **Corresponding Structure:** spreader (130), and equivalents thereof.

Claim Term	Agreed Construction/Court's Construction
spreading factor generation means for generating a spreading factor related to the data rate of the data part[1] (Claim 14)	This is a §112 ¶6 claim element. **Function:** generating a spreading factor related to the data rate of the data part. **Corresponding structure:** encoder (110), and equivalents thereof.
$C_{256,0}$ (Claims 19, 19, 83)	**AGREED CONSTRUCTION** A code of 256 1s
$C_{4,1}$ (Claims 14, 19, 69)	**AGREED CONSTRUCTION** A code of {1, 1, -1, -1}.
control means responsive to the spreading factor for generating code numbers for the channels (Claim 14)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: generating code numbers for the channels in response to the spreading factor. **Corresponding Structure**: CPU (180) shown in FIG 3, referenced in FIGS 5-7.

[1] This order is without prejudice to Defendants' arguments regarding invalidity.

Claim Term	Agreed Construction/Court's Construction
counting means for consecutively producing a count value in synchronization with a clock signal, (Claim 14)	This is a §112 ¶ 6 claim element. **Function:** consecutively producing a count value in synchronization with a clock signal. **Corresponding Structure:** counter (220), and equivalents thereof.
first spreading code generation means responsive to the count value and the spreading factor for generating the spreading code to be allocated to the data channel (Claim 14)	This is a §112 ¶ 6 claim element. **Function:** generating the spreading code to be allocated to the data channel in response to the count value and the spreading factor. **Corresponding Structure:** logical operator (231) and multiplexer (232), and equivalents thereof.
second spreading code generation means responsive to the count value and the spreading factor for generating the spreading code to be allocated to the control channel (Claim 14)	This is a §112 ¶ 6 claim element. **Function:** generating the spreading code to be allocated to the control channel in response to the count value and the spreading factor. **Corresponding Structure:** logical operator (233) and multiplexer (234), and equivalents thereof.

Claim Term	Agreed Construction/Court's Construction
second logical operation means responsive to the count value for carrying out a logical operation with the spreading factor and the code number related to the control part (Claim 14)	This is a §112 ¶ 6 claim element. **Function:** carrying out a logical operation with the spreading factor and the code number related to the control part in response to the count value. **Corresponding Structure:** logical operator (233), and equivalents thereof.
second selection means for outputting the spreading code related to the control part in response to a select signal as the spreading factor related to the control part (Claim 14)	This is a §112 ¶ 6 claim element. **Function:** outputting the spreading code related to the control part in response to a select signal as the spreading factor related to the control part. **Corresponding Structure:** multiplexer (234), and equivalents thereof.
first logical operation means responsive to the count value for carrying out a logical operation with the spreading factor and the code number related to the data part (Claim 15)	This is a §112 ¶ 6 claim element. **Function:** carrying out a logical operation with the spreading factor and the code number related to the data part in response to the count value **Corresponding Structure:** logical operator (231), and equivalents thereof.

Claim Term	Agreed Construction/Court's Construction
first selection means for outputting the spreading code related to the data part in response to a select signal as the spreading factor related to the data part (Claim 15)	This is a §112 ¶ 6 claim element. **Function:** outputting the spreading code related to the data part in response to a select signal as the spreading factor related to the data part. **Corresponding Structure:** multiplexer (232), and equivalents thereof
The apparatus as recited in claim 15, wherein the first logical operation means carries out a logical operation of $\prod^{N-2} \oplus I_i \cdot B_N - 1 - 1$ if the predetermined spreading factor is 2^N where N is 2 to 8. (Claim 16)	This claim limitation narrows the recited function of a §112 ¶6 claim element. **Function**: The function of "carrying out a logical operation with the spreading factor and the code number related to the data part, to thereby generate the spreading code related to the data part in response to the count value" is further limited to "carrying out a logical operation of $\boldsymbol{\prod^{N-2} \oplus I_i \cdot B_N - 1 - 1}$ if the predetermined spreading factor is 2^N where N is 2 to 8." **Corresponding Structure:** logical operator (231), and equivalents thereof.

Claim Term	Agreed Construction/Court's Construction
The apparatus as recited in claim 17, wherein the second logical operation means carries out a logical operation of $\prod^{N-2} \oplus I_i \cdot B_N - 1 - 1$ if the predetermined spreading factor is 2^N where N is 2 to 8 (Claim 18)	This claim limitation narrows the recited function of a §112 ¶6 claim element. **Function**: The function of "carrying out a logical operation with the spreading factor and the code number related to the control part, to thereby generate the spreading code related to the control part in response to the count value" is further limited to "carrying out a logical operation of $\prod^{N-2} \oplus I_i \cdot B_N - 1 - 1$ if the predetermined spreading factor is 2^N where N is 2 to 8." **Corresponding Structure:** logical operator (232), and equivalents thereof.
$C_{4,3}$ (Claim 69)	**AGREED CONSTRUCTION** A code of {1, -1, -1, 1}.

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U.S. Patent RE40,253

Claim term	Agreed Construction/Court's Construction
a plurality of terminals randomly access to a reverse common channel (Claim 34)	**AGREED CONSTRUCTION** This phrase from the preamble is not a limitation.
means for receiving state information broadcasted from the base station[2] (Claim 34)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: receiving state information broadcasted from the base station. **Corresponding Structure**: RF antenna, broadcast signal receiver 114, terminal RF signal processor 113, and equivalents thereof.
Preamble (Claims 34, 35, 36, 43, 44, 45, 48, 51, 52, 54)	The portion of the data packet used by the base station for code synchronization detection.

[2] This order is without prejudice to Defendants' arguments regarding invalidity.

Claim term	Agreed Construction/Court's Construction
data transmission determination means for determining whether the code synchronization of the data packet is acquired or not based on the state information, allowing the terminal to transmit the data packet in the same time slot as the data packet of which the code synchronization is acquired if the code synchronization of the data packet is acquired, and allowing the terminal to stop transmission of the data packets if the code synchronization of the data packet is not acquired.[3] (Claim 34)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: determining whether the code synchronization of the data packet is acquired or not based on the state information, allowing the terminal to transmit the data packet in the same time slot as the data packet of which the code synchronization is acquired if the code synchronization of the data packet is acquired, and allowing the terminal to stop transmission of the data packets if the code synchronization of the data packet is not acquired **Corresponding Structure**: Data transmission determination circuit 115, and equivalents thereof.

[3] This order is without prejudice to Defendants' arguments regarding invalidity.

Claim term	Agreed Construction/Court's Construction
at data transmission determination means, determining whether the code synchronization of the data packet is acquired or not based on the broadcast signal, allowing the data transmitter to continue to transmit the data packet if the code synchronization of the data packet is acquired, and allowing the data transmitter to stop transmission of the data packets if the code synchronization of the data packet is not acquired[4] (Claim 44)	This limitation is governed by 35 U.S.C. § 112, ¶ 6. **Function**: determining whether the code synchronization of the data packet is acquired or not based on the broadcast signal, allowing the data transmitter to continue to transmit the data packet if the code synchronization of the data packet is acquired, and allowing the data transmitter to stop transmission of the data packets if the code synchronization of the data packet is not acquired. **Corresponding Structure**: Data transmission determination circuit 115, and equivalents thereof.

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[4] This order is without prejudice to Defendants' arguments regarding invalidity.

U.S. Patent 7,768,973

Claim Term	Agreed Construction
$C_{4,1}$ (Claims 48, 49, 66)	A code of {1, 1, -1, -1}
$C_{4,3}$ (Claims 48, 49, 66)	A code of {1, -1, -1, 1}
$C_{256,0}$ (Claim 50)	A code of 256 1s

IT IS SO ORDERED.

Dated: May 23, 2012

Honorable Cathy Ann Bencivengo
UNITED STATES DISTRICT JUDGE