

1 QUINN EMANUEL URQUHART  
& SULLIVAN, LLP

2 James R. Asperger (Bar No. 083188)  
3 [jimasperger@quinnemanuel.com](mailto:jimasperger@quinnemanuel.com)  
865 S. Figueroa St., 10<sup>th</sup> Floor  
4 Los Angeles, CA 90017  
Telephone: (213) 443-3000  
5 Facsimile: (213) 443-3100

6 Kevin P.B. Johnson (Bar No. 177129)  
7 [kevinjohnson@quinnemanuel.com](mailto:kevinjohnson@quinnemanuel.com)  
Redwood Shores, CA 94065  
Telephone: (650) 801-5000  
8 Facsimile: (650) 801-5100

9 Attorneys for Plaintiff California Institute  
Of Technology

10 *Counsel for Defendants Listed Below*

11  
12 **UNITED STATES DISTRICT COURT**  
13 **CENTRAL DISTRICT OF CALIFORNIA**

14 THE CALIFORNIA INSTITUTE OF  
TECHNOLOGY,

15  
16 Plaintiff,

17 vs.

18 HUGHES COMMUNICATIONS INC.,  
HUGHES NETWORK SYSTEMS LLC,  
19 DISH NETWORK CORPORATION,  
DISH NETWORK LLC, and DISHNET  
20 SATELLITE BROADBAND LLC,

21 Defendant.

Case No. 2:13-cv-07245-MRP-  
JEM

**JOINT CLAIM  
CONSTRUCTION AND  
PREHEARING STATEMENT  
PURSUANT TO THE  
COURT'S AMENDED  
SCHEDULING ORDER  
(DKT. NO. 47)**

The Hon. Mariana R. Pfaelzer  
United States District Court Judge

Hearing Date: July 9, 2014  
Time: 1:30 p.m.  
Place: Courtroom 12

22  
23  
24  
25  
26  
27  
28  
JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT  
Case No. 2:13-cv-07245-MRP-JEM

1 Plaintiff The California Institute of Technology (“Caltech”) and Defendants  
 2 Hughes Communications Inc., Hughes Network Systems LLC, DISH Network  
 3 Corporation, DISH Network LLC, and dishNET Satellite Broadband LLC  
 4 (collectively, “Hughes”) hereby submit this Joint Claim Construction and  
 5 Prehearing Statement pursuant to the Court’s Amended Scheduling Order (Dkt. No.  
 6 47).

7 **I. AGREED CLAIM CONSTRUCTIONS**

8 The parties have reached agreement on the construction of the following  
 9 claim terms:

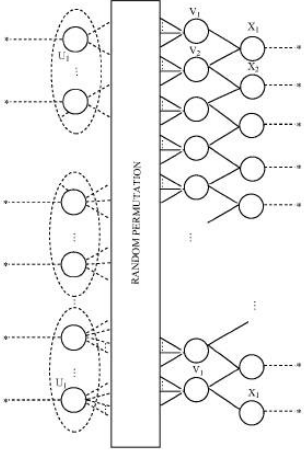
Claim Term(s)	Patent Claim(s)	Agreed Construction
“irregularly”	’710 patent, claim 15; ’032 patent, claim 1	“a different number of times”
“interleaving” / “interleaver” / “scramble”	’710 patent, claims 1, 15, and 19	“changing the order of data elements” / “module that changes the order of data elements”
“sums of bits in subsets of the information bits” / “summing of bits in a subset of the information bits” / “adding additional subsets of information bits”	’781 patent, claims 6, 13, 20, 21, 22	“the result(s) of adding together two or more information bits from a subset of information bits” / “adding together two or more information bits from a subset of information bits”
“wherein two or more memory locations of the first set of memory locations are read by the permutation module different times from one another”	’833 patent, claims 1 and 8	“where two or more memory locations of the first set of memory locations are read by the permutation module a different number of times from one another”
“permutation module”	’833 patent, claims 1, 2, 3, 6 and 8	“a module that changes the order of data

1 elements”

2 If the parties reach agreement as to the constructions of additional terms at a  
 3 later date, they will supplement the Joint Statement to reflect any such additional  
 4 agreement.

5 **II. DISPUTED CLAIM CONSTRUCTIONS**

6 The parties have identified the following terms as disputed, and respectfully  
 7 request that they be construed by the Court:

Claim Term(s)	Patent Claim(s)	Caltech’s Construction	Hughes’s Construction
“repeat”	‘710 patent, claims 1, 6, 11, 15,16, and 19	“re-use in forming a code”	“sequential duplication”
$x_j = x_{j-1} + \sum_{i=1}^a v_{(j-1)(a+i)}$	‘032 claim 1	“The parity bit $X_j$ is the sum of (a) the parity bit $X_{j-1}$ and (b) the sum of a number, “a,” of randomly chosen irregular repeats of the message bits”	This term is indefinite under 35 U.S.C. §112, ¶2. In the alternative, plain meaning.
	‘032 patent, claims 11 and 18	The Tanner Graph shows the generation of parity bits (indicated by $x_i$ ) whose values are each determined by the constraints imposed by the check nodes (indicated by $v_i$ ) they are each connected to. Each check	This term is indefinite under 35 U.S.C. §112, ¶2.  At a minimum, however, this limitation requires “at least three information bits, where each of the three information bits contributes to a

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Claim Term(s)	Patent Claim(s)	Caltech's Construction	Hughes's Construction
		node is also randomly connected to message bits, where subsets of message bits are re-used a different number of times in forming the connections to check nodes; one subset will be re-used two times, one subset will be re-used three times, and at least one additional subset will be re-used more than three times. A check node imposes the constraint that the modulo-2 sum of all bits connected to it is "0."	different number of parity checks."
"transmitting" / "transmission"	'032 patent, claims 1, 8 and 10	"sending over a channel"	"sending over a physical channel"
"codeword"	'781 patent, claims 1-4, 11, 13-16, 19-21	"a discrete encoded sequence of data elements "	"a discrete sequence of data elements encoded for transmission"

00136.23777/6043172.2



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

Claim Term(s)	Patent Claim(s)	Caltech's Construction	Hughes's Construction
"combine"	'833 patent, claims 1, 2, 3, 8, 9, 10, and 13	"performing mod-2 addition or exclusive-OR sum and/or writing the sum to the second set of memory locations based on a corresponding index"	This term is indefinite under 35 U.S.C. §112, ¶2. In the alternative, plain meaning.

The parties respectfully reserve the right to amend, correct, or supplement their respective claim construction positions in response to any change of position by another party or for other good cause.

**III. ANTICIPATED LENGTH OF CLAIM CONSTRUCTION HEARING**

The parties expect that the claim construction hearing will take three hours.

**IV. PROPOSED WITNESSES TO CALL**

The parties do not intend to offer any live witness testimony at the claim construction hearing.



# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.