

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

Apple Inc.,  
Petitioner

v.

California Institute of Technology  
Patent Owner

---

IPR2017-00219  
U.S. Patent No. 7,116,710

---

**PETITIONER'S UPDATED EXHIBIT LIST**

Pursuant to the Board granting Petitioner's Motions to Submit

Supplemental Information on October 27, 2017, Petitioner hereby submits the Supplemental Information authorized by the Board and this updated Exhibit List. Exhibit 1227 in Petitioner's Motion is now numbered Exhibit 1242. Exhibit 1228 in Petitioner's Motion is now numbered Exhibit 1243.

Dated: October 30, 2017

/Michael Smith/

---

Michael Smith  
Registration No. 71,190

**CERTIFICATE OF SERVICE**

I hereby certify that on October 31, 2017, I caused a true and correct copy of the foregoing materials:

- Petitioner's Updated Exhibit List
- Exhibits 1229-1243

to be served via electronic mail on the following correspondents of record as listed in Patent Owners' Mandatory Notices:

Michael Rosato (mrosato@wsgr.com)  
Matthew Argenti (margenti@wsgr.com)  
Richard Torczon (rtorczon@wsgr.com)  
Kevin P.B. Johnson (kevinjohnson@quinnemanuel.com)  
Todd M. Briggs (toddbriggs@quinnemanuel.com)

/Michael Smith/  
Michael Smith  
Registration No. 71,190

**PETITIONER'S UPDATED EXHIBIT LIST**

**IPR2017-00219**

1201	U.S. Patent 7,116,710
1202	Replacement copy of Frey, B. J. and MacKay, D. J. C., "Irregular Turbocodes," <i>Proc. 37th Allerton Conf. on Comm., Control and Computing</i> , Monticello, Illinois, published on or before March 20, 2000
1203	Replacement copy of D. Divsalar, H. Jin, and R. J. McEliece, "Coding theorems for "turbo-like" codes," <i>Proc. 36th Allerton Conf. on Comm., Control and Computing</i> , Allerton, Illinois, pp. 201-10, March, 1999
1204	Luby, M. <i>et al.</i> , "Analysis of Low Density Codes and Improved Designs Using Irregular Graphs," <i>STOC '98</i> , pp. 249-59, published in 1998
1205	Pfister <i>et al.</i> , "The Serial Concatenation of Rate-1 Codes Through Uniform Random Interleavers" (Exhibit 1 to the Siegel Declaration)
1206	Declaration of Professor James Davis, Ph.D. ("Davis Declaration")
1207	Gallager, R., <i>Low-Density Parity-Check Codes</i> , Monograph, M.I.T. Press, 1963
1208	Berrou <i>et al.</i> , "Near Shannon Limit Error-Correcting Coding and Decoding: Turbo Codes," <i>ICC '93</i> , Technical Program, Conference Record 1064, Geneva 1993
1209	MacKay, D. J. C, and Neal, R. M. "Near Shannon Limit Performance of Low Density Parity Check Codes," <i>Electronics Letters</i> , vol. 32, pp. 1645-46, 1996
1210	Benedetto, S. <i>et al.</i> , <i>Serial Concatenation of Block and Convolutional Codes</i> , 32.10 <i>Electronics Letters</i> 887-8, 1996
1211	Luby, M. <i>et al.</i> , "Practical Loss-Resilient Codes," <i>STOC '97</i> , 1997
1212	Declaration of Robin Fradenburgh Concerning the "Proceedings, 36th Allerton Conference on Communications, Control, and Computing" Reference

1213	Frey, B. J. and MacKay, D. J. C., "Irregular Turbo-Like Codes" presented at the 1999 Allerton Conference on Communications, Control, and Computing.
1214	Prosecution History of the '710 Patent, Response Dated May 5, 2005
1215	Table of Contents of <i>Proceedings of the 37th Allerton Conference on Communication, Control and Computing</i> from September 22-24, 1999
1216	Joint Claim Construction Statement (Case No. 2:13-cv-07245, Dkt. No. 47)
1217	Expert Report of Dr. Brendan Frey (Case No. 2:13-cv-07245)
1218	Aamod Khandekar, "Graph-based Codes and Iterative Decoding," Thesis submitted June 10, 2002
1219	Richardson, Shokrollahi, and Urbanke, "Design of Provably Good Low-Density Parity Check Codes"
1220	Replacement copy of the Declaration of Paul H. Siegel
1221	U.S. Provisional Application No. 60/205,095
1222	Mitzenmacher, M. "Studying balanced allocations with differential equations," <i>Combinatorics, Probability &amp; Computing</i> 8.5, pp. 473-482, September 1999
1223	Barg <i>et al.</i> , "Linear-time Binary Codes Correcting Localized Erasures," <i>IEEE Transactions on Information Theory</i> 45.7, pp. 2545-2550, November 1999
1224	Shokrollahi, "New Sequences of Linear Time Erasure Codes Approaching the Channel Capacity," <i>Applied Algebra, Algebraic Algorithms and Error-Correcting Codes</i> , pp. 65-76, 1999
1225	Declaration Of Richard Goldenberg In Support Of Unopposed Motions To Submit Replacement Exhibits Pursuant To 37 C.F.R. § 42.104(c)
1226	Declaration Of Jonathan Barbee In Support Of Unopposed Motions To Submit Replacement Exhibits Pursuant To 37 C.F.R. § 42.104(c)
1227	Declaration of James M. Dowd in Support of Motion for Admission <i>Pro Hac Vice</i>

# 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.