UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

SIRIUS XM RADIO INC.,
Petitioner,

v.

FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG DER ANGEWANDTEN FORSCHUNG E.V.,
Patent Owner.

_____

Case No. _____
Patent No. 6,314,289

PETITION FOR INTER PARTES REVIEW OF U.S. PATENT NO. 6,314,289

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

TABLE OF CONTENTS

Page

I. Introduction....1
II. Grounds for Standing....2
III. PAYMENT OF FEES (37 C.F.R. § 42.103)....2
IV. Mandatory Notices....2
A. Real Party in Interest....2
B. Related Matters....2
C. Lead and Backup Counsel....3
D. Service Information....3
V. Background....3
A. Technology Tutorial....3
1. Fading and Shadowing....5
2. Time and Space Diversity....5
3. Forward Error Correction Coding ("FEC")....6
B. The '289 Patent....7
1. Overview of the '289 Patent....7
2. The Challenged Claims....9
VI. Person of Ordinary Skill in the Art....11
VII. Claim Construction....11
1. "delay means for delaying the second portion of output bits transmitted via the second channel" (claims 1 and 5)....11

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

2. "delay means for delaying the portion of bits received via one channel to compensate for a delay imposed on the portion of bits received via the other channel" (claim 11) 12

3. "means for transmitting the output bits of the first portion via a first channel and the output bits of the second portion via a second channel" (claim 2) 12

4. "receiving means for receiving the first portion of bits via a first channel and the second portion of bits via a second channel" (claims 10, 13) 13

5. "depuncturing means for compensating for a puncturing operation in a transmitter" (claim 13).....14

VIII. Statement of the Precise Relief Requested.....15

IX. Overview of the Prior Art.....15

A. Overview of the Smallcomb Reference (Ex. 1003) 15

B. Overview of the Chen Reference (Ex. 1004) 17

C. Overview of the Campanella Reference (Ex. 1005) 19

D. Motivation to Combine Chen and Campanella.....22

X. Detailed Explanation of the Grounds for Unpatentability.....24

A. Chen In View of Campanella Renders Obvious Claims 1-15, 17-33, and 35 of the '289 Patent Under 35 U.S.C. § 103 24

1. Claim 1 24

(a) Element 1[a].....24

(b) Element 1[e].....25

(c) Element 1[f] 26

(d) Element 1[g] 27

(e) Element 1[h] 28

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

(f) Element 1[i]; 30
(g) Element 1[j] 32
(h) Elements 1[k] 33
(i) Elements 1[l] and 1[n] 37
(j) Element 1[q] 38
2. Claim 2 38
(a) Elements 2[a] and 2[e]-2[k] 38
(b) Element 2[m] 39
3. Claim 3 41
(a) Element 3[o] 41
4. Claim 4 41
(a) Element 4[p] 41
5. Claim 5 43
(a) Element 5[q] 43
6. Claim 6 43
(a) Elements 6[a] and 6[e]-6[k] 43
(b) Element 6[r] 43
(c) Element 6[s] 44
7. Claim 7 44
(a) Element 7[t] 44
(b) Element 7[u] 45
8. Claim 8 46
(a) Element 8[v] 46

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

9. Claim 9 48
(a) Elements 9[a] and 9[e]-9[k] 48
(b) Element 9[r] 48
(c) Element 9[w] 49
(d) Element 9[x] 51
10. Claim 10 52
(a) Element 10[c] 52
(b) Elements 10[f]-10[i] 53
(c) Element 10[k] 54
(d) Element 10[y] 55
(e) Element 10[z] 56
(f) Element 10[aa] 57
11. Claim 11 59
(a) Element 11[q] 59
12. Claim 12 60
(a) Element 12 60
13. Claim 13 61
(a) Elements 13[c], 13[f]-13[i], 13[k], and 13[y]-13[aa] 61
(a) Element 13[z] 61
(b) Element 13[cc] 61
14. Claim 14 62
(a) Element 14[dd] 62

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

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.