

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZTE (USA), INC

Petitioner,

v.

FRACTUS S.A.,

Patent Owner.

IPR No. IPR2018-01455

U.S. Patent No. 7,394,432

Issue Date: July 1, 2008

Ex Parte Reexamination Certificate Date: April 7, 2015

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 7,394,432 PURSUANT TO
35 U.S.C. §§ 311-319 & 37 C.F.R. 42**

Fractus S.A.

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| | “geometric elements ” | 22 |
| | “frequency band”..... | 23 |
| | “said second [and third] portion[s] being located substantially within the first portion”..... | 23 |
| | “radio electric behavior substantially similar” | 24 |
| | “the second portion is a second level of structural detail within the first level of structural detail” | 24 |
| | “number of sides” | 24 |
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LIST OF EXHIBITS

| Exhibit No. | Document |
|--------------------|--|
| Ex. 1001 | U.S. Patent No. 7,394,432 |
| Ex. 1002 | Declaration of Dr. Chris Bartone |
| Ex. 1003 | Misra et al., "Study of Impedance and Radiation Properties of a Concentric Microstrip Triangular-Ring Antenna and Its Modeling Techniques Using FDTD Method," IEEE Transactions on Antennas and Propagations, Vol, 46, No. 4, April, 1998 (" <i>Misra I</i> ") |
| Ex. 1004 | Misra et al., "Experimental Investigations on the Impedance and Radiation Properties of a Three-Element Concentric Microstrip Antenna," Microwave and Optical Technology Letters, Vol, 11, No. 2, February, 1996 (" <i>Misra II</i> ") |
| Ex. 1005 | U.S Patent No. 6,133,879 (" <i>Grangeat</i> ") |
| Ex. 1006 | U.S Patent No. 6,195,048 (" <i>Chiba</i> ") |
| Ex. 1007 | Declaration of Brian Durrance |
| Ex. 1008 | Fractus v. ZTE et al., Case No. 2:17-cv-00561 (D.I. 71) |
| Ex. 1009 | Fractus v. Samsung et al., Case No. 6:09-cv-00203 (D.I. 526) |
| Ex. 1010 | Reexamination Certificate of '432 patent |
| Ex. 1011 | <i>Ex parte</i> Reexamination Response to Non-Final Office Action 90/013,024 |
| Ex. 1012 | <i>Ex parte</i> Reexamination Non-final Office Action 90/013,024 |
| Ex. 1013 | <i>Ex parte</i> Reexamination Request Decision 90/013,024 |
| Ex. 1014 | <i>Ex parte</i> Reexamination Petition 90/013,024 |
| Ex. 1015 | <i>inter partes</i> Reexamination Request 95/001,483 |
| Ex. 1016 | <i>inter partes</i> Reexamination Non-final Office Action 95/001,483 |
| Ex. 1017 | <i>inter partes</i> Reexamination Action Closing Prosecution 95/001,483 |
| Ex. 1018 | <i>inter partes</i> Reexamination Termination 95/001,483 |
| Ex. 1019 | Order on <i>Inter Partes</i> Reexam Petition 95/002,349 |
| Ex. 1020 | Patent Owner's Statutory Disclaimer |
| Ex. 1021 | Claim 17 of App. No. PCT/ES99/00296, filed Sep. 20, 1999 |
| Ex. 1022 | Ex. N from Patent Owner's Claim Construction Brief, Fractus v. ZTE et al., Case No. 2:17-cv-00561 |
| Ex. 1023 | U.S. Patent No. 7,015,868 |

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| Ex. 1024 | January 15, 2008 Office Action in U.S. Serial No. 11/550,256 ('432 Patent) |
| Ex. 1025 | February 28, 2008 Office Action Response in U.S. Serial No. 11/550,256 ('432 Patent) |
| Ex. 1026 | March 28, 2008 Notice of Allowance in U.S. Serial No. 11/550,256 ('432 Patent) |
| Ex. 1027 | July 18, 2018 Certified Letter from Library of Congress regarding <i>Misra I</i> |
| Ex. 1028 | July 18, 2018 Certified Letter from Library of Congress regarding <i>Misra II</i> |
| Ex. 1029 | Declaration of Gang Chen |

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I. INTRODUCTION

ZTE (USA), Inc. (“Petitioner”) requests *inter partes* review (“IPR”) of claims 5-13 (“the challenged claims”) of U.S. Patent No. 7,394,432 (“the ’432 patent”) (Ex. 1001), which on its face is assigned to Fractus, S.A. (“Patent Owner”).

As explained below, the ’432 patent was subject to an *inter partes* reexamination (“IPX”), where original claims 1-3 and 6 were found invalid over the prior art. Patent Owner filed an appeal with the Board. Before the Board ruled on the merits, the appeal was terminated as moot due to Patent Owner’s settlement of concurrent litigation involving the ’432 patent. Patent Owner subsequently amended claim 6 to overcome invalidity rejections in an *ex parte* reexamination (“EPX”) filed by Samsung, and later sued Petitioner for infringement of that claim. But no claim of the ’432 patent has been found valid in the PTO when an opposing party had the opportunity to explain why Patent Owner’s amendments and arguments failed to establish patentability.

The challenged claims should be found unpatentable and canceled on the grounds discussed below, which were not previously considered by the PTO.

II. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-in-Interest

Petitioner identifies ZTE Corporation, ZTE (USA), Inc. and ZTE (TX), Inc. as the real parties-in-interest.

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