

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NOKIA OF AMERICA CORPORATION, ERICSSON INC., AND T-MOBILE
USA, INC.
Petitioners

v.

GENERAL ACCESS SOLUTIONS, LTD.,
Patent Owner

Case No. IPR2023-01416

U.S. Patent No. 6,947,477

**SUPPLEMENTAL DECLARATION OF DANIEL VAN DER WEIDE,
Ph.D.**

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I. INTRODUCTION

1. I have been retained as a technical expert by counsel for Petitioners Nokia of America Corporation (“Nokia”), Ericsson Inc. (“Ericsson”), and T-Mobile USA, Inc. (“T-Mobile”) to address certain issues regarding U.S. Patent No. 6,794,477 (“the ’477 Patent”).

2. I have personal knowledge of the facts contained in this Declaration, am of legal age, and am otherwise competent to testify.

3. Unless otherwise stated, the matters contained in this Declaration are of my own personal knowledge and, if called as a witness, I could and would testify completely and truthfully with regard to the matters set forth herein.

4. My opinions are based on my years of education, research, and experience, as well as my study of the relevant materials. A list of materials I considered is included at the beginning of this Declaration.

5. I reserve all available rights to supplement this Declaration if further information becomes available, or if I am asked to consider additional information. This Declaration represents only those opinions I have formed to date.

6. Further, I reserve all available rights to consider and comment on any additional expert statements or testimony of Patent Owner’s expert(s) in this matter.

7. I am being compensated at my current consulting rate of \$750 per hour for my time spent working on issues in this matter. My compensation does not depend on the outcome of this matter or the opinions I express.

II. QUALIFICATIONS

8. I hereby incorporate my Qualifications sections from my Declaration filed with the original Petition for *Inter Partes* Review on October 13, 2023. Ex. 1003.

III. LEGAL STANDARDS

9. I hereby incorporate my Legal Standards sections from my Declaration filed with the original Petition for *Inter Partes* Review on October 13, 2023. Ex. 1003.

IV. CLAIM CONSTRUCTION

A. “coupled to”

10. I understand that before the District Court Patent Owner and Petitioners agreed to construe the term “coupled to” as “joined or connected to in any way.” Ex. 1036 at 33:14-21.

11. I agree that this construction is the plain and ordinary meaning to a POSITA in light of the specification, prosecution history, and understanding of one of skill in the art.

12. The phrase “coupled to” occurs twice in claim 1, first in “a profile parameter determiner coupled to receive an indication of an initial burst of the first burst data signal” (Ex. 1001, Claim 1.A) and then again in “a profile parameter storage device coupled to said profile parameter determiner.” While the second use of the term “coupled to” references two components, the first describes a functional relationship, the profile parameter determiner is “coupled to receive,” or coupled for the purpose of receiving. This shows that the term “coupled to” is not limited to a specific, direct, physical relationship, but instead represents a functional relationship.

13. The specification similarly uses the term “coupled” to include components that are explicitly functionally coupled, noting that “[m]odem 302 and modem 304 are selectively coupled to receive uplink signals” (Ex. 1001 at 9:67-10:1) and that “[t]he modems are shown to be functionally coupled to controller 316 via lines 310, for receiving contention results, and 312 for passing parameters, frame times and weight values for the modems to apply to the received signals” (Ex. 1001 at 10:9-13).

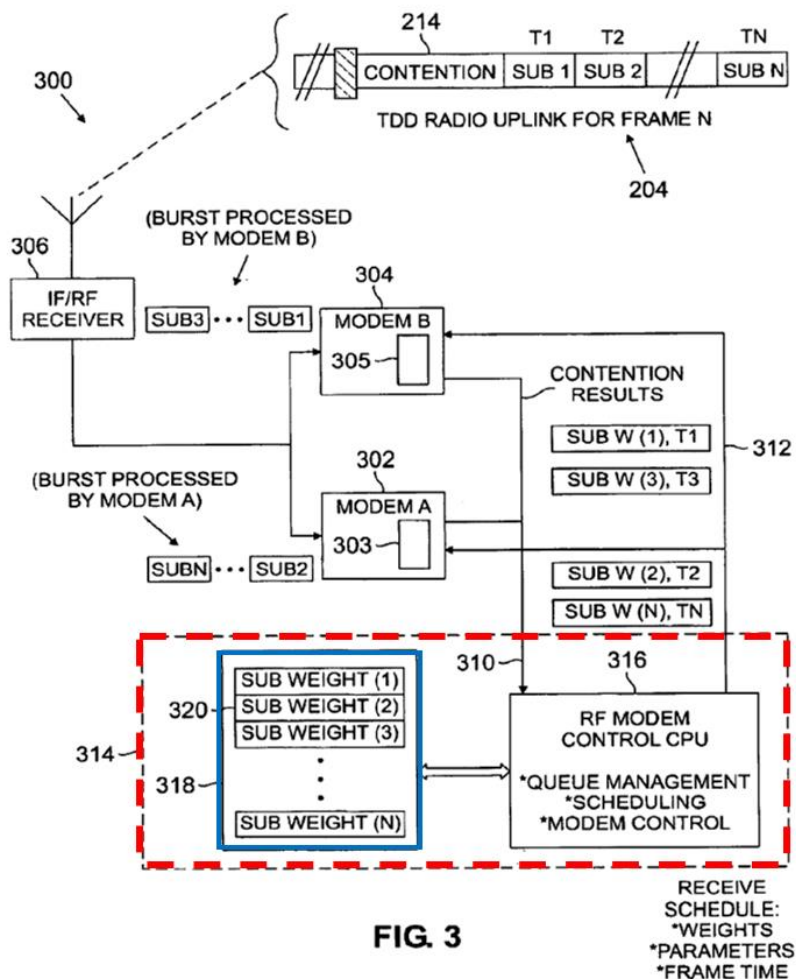
14. A POSITA would understand that coupling two components together describes a functional relationship that includes all components “joined or connected to in any way.”

15. A POSITA would understand that joining or connecting components in any way would include components that are joined within each other. The claimed “profile parameter determiner” performs the functions of “receiv[ing] an indication of an initial burst of the first burst data signal” and “determining a value of at least one signal-related parameter and at least one channel-related parameter” (Ex. 1001 Cl. 1). Figure 3 of the ’477 Patent sets forth that “[p]rofiles (not shown) are created and maintained by controller 314 in a memory such as memory device 318. The profiles include values which represent channel characteristics upon which uplink signals are transmitted as well as characteristics of the uplink signals” (Ex. 1001 at 10:18-24). The controller 314 can satisfy the claimed profile parameter determiner.

16. Family members of the ’477 Patent confirm that a controller can satisfy the claimed profile parameter determiner. *See* Ex. 1040 at 10:43-49 (“the term ‘controller’ means any device, system or part thereof that controls at least one operation, such a device may be implemented in hardware, firmware or software, or some combination of at least two of the same. It should be noted that the functionality associated with any particular controller may be centralized or distributed, whether locally or remotely.”); *see also* Ex. 1041 at 10:60-66 (same).

17. U.S. Patent Nos. 6,891,810 (Ex. 1040) and 7,002,929 (Ex. 1041) descend from at least Provisional Application No. 60/273,579, from which the ’477 Patent also descends (*compare* Ex. 1001 at p. 1 *with* Exs. 1040 and 1041 at p. 1).

18. Memory device 318 (shown in blue) is a joined within controller 314 (shown in red).



19. The '477 Patent further sets forth that “an embodiment of the present invention is implemented at the base station of a fixed wireless access communication system.... The modems are controlled by a controller, such as a base station central processing unit (CPU), to control demodulation operations thereat. The controller maintains profiles associated with the channels wherein separate ones of the data bursts are communicated” (Ex. 1001 6:50-62). The controller or base

station central processing unit contains components which control demodulation operations and components which maintain profiles associated with channels.

20. Under the proper construction of “coupled to”, i.e., joined or connected to in any way, the profile parameter storage device may be joined within the profile parameter determiner.

B. “said profile parameter storage device for storing values representative of the at least one signal-related parameter and the at least one channel-related parameter”

21. The plain and ordinary meaning of the term “said profile parameter storage device for storing values representative of the at least one signal-related parameter and the at least one channel-related parameter” does not require the signal-related parameter and channel-related parameter be stored together. A POSITA would understand that this term could contemplate plural storage devices holding one or more of the at-issue parameters.

C. “channel-related parameter”

22. The plain and ordinary meaning of the term “channel-related parameter” does not require the signal-related parameter and channel-related parameter be stored together. A POSITA would understand that this term could contemplate plural storage devices holding one or more of the at-issue parameters.

23. The '477 Patent specification contains an open-ended list describing channel-related parameters. It states that “channel-related parameters *include* values

of equalization weighting, antenna parameters, either at the subscriber station or at the base station, *etc.*” (Ex. 1001 at 11:62-64 (emphasis added)). This is an open-ended list as it states that channel-related parameters “include” the listed options and uses the term “*etc.*” A POSITA would not understand this list to limit the term “channel-related parameters” to only examples lifted from the specification. A POSITA would not understand the term to be limited to “antenna parameters” much less to applications where such parameters are “antenna combining parameters when antenna diversity and/or beamforming is utilized.”

V. GENOSSAR ANTICIPATES “A PROFILE PARAMETER STORAGE DEVICE COUPLED TO SAID PROFILE PARAMETER DETERMINER.”

24. The construction of the term “coupled to” discussed above in Section IV.A does not materially alter my analysis of claim limitation 1.C. As set forth in my prior declaration (Ex. 1003) this limitation is anticipated by Genossar.

VI. BARRATT ’470 ANTICIPATES “A PROFILE PARAMETER STORAGE DEVICE COUPLED TO SAID PROFILE PARAMETER DETERMINER.”

25. The construction of the term “coupled to” discussed above in Section IV.A does not materially alter my analysis of claim limitation 1.C. As set forth in my prior declaration (Ex. 1003) this limitation is anticipated by Barratt ’470.

26. Specifically, I note that Barratt ’470 states that a Motorola Inc., DSP56301 “maintains values associated with the signals received during that timeslot, including: an initial weight matrix, frequency offset, and time alignment

parameters” (Ex. 1007 at 8:36-61, 16:17-17:7, 24:24-28). I am personally familiar with the Motorola Inc. DSP56301.

27. The Motorola Inc. DSP56301 contains a Memory Expansion Area which includes a “Program Ram... Instruction-Cache”, an “X Memory RAM” and a “Y Memory RAM” (Ex. 1042 at 56).

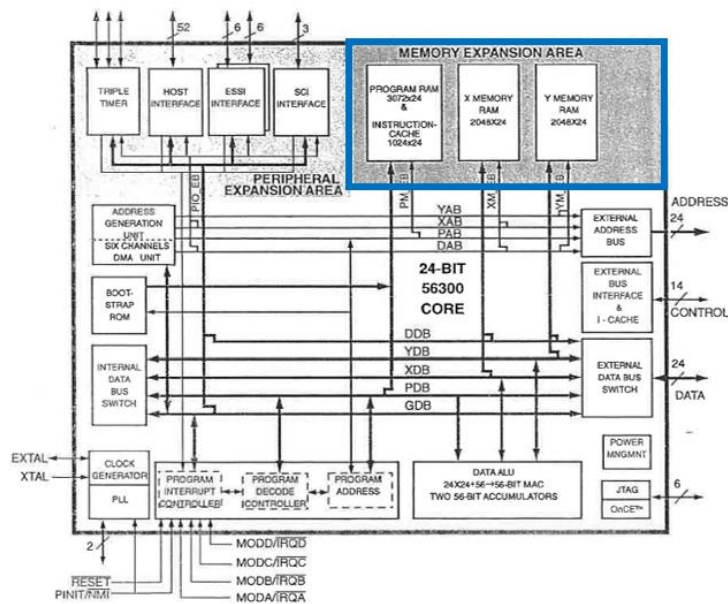


Figure 1 DSP56301 Block Diagram

OnCETM is a trademark of Motorola, Inc.



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Ex. 1042 at p. 56 (annotated).

28. I am aware that a copy of the Motorola Inc. DSP56301 datasheet reflecting the same was submitted by Motorola during prosecution of one of its patents, U.S. Patent No. 6,145,070 (Ex. 1042 at 55-56). The certified file history of U.S. Patent No. 6,145,070 states that the datasheet was considered by the examiner

on November 18, 1998, prior to the earliest alleged priority date of the '477 Patent (Ex. 1042 at 55-56).

29. The memory components of the Motorola Inc. DSP56301 would have “maintained” the at-issue values and these components were “coupled to” the other components of the DSP56301 in that they were joined within device. For these reasons, and those set forth in my initial declaration, Barratt '470 anticipates this limitation.

VII. GENOSSAR ANTICIPATES “SAID PROFILE PARAMETER STORAGE DEVICE FOR STORING VALUES REPRESENTATIVE OF THE AT LEAST ONE SIGNAL-RELATED PARAMETER AND THE AT LEAST ONE CHANNEL-RELATED PARAMETER.”

30. For the reasons set forth above in Sections IV and V, and in my initial declaration, Genossar anticipates this limitation.

VIII. BARRATT '470 ANTICIPATES “SAID PROFILE PARAMETER STORAGE DEVICE FOR STORING VALUES REPRESENTATIVE OF THE AT LEAST ONE SIGNAL-RELATED PARAMETER AND THE AT LEAST ONE CHANNEL-RELATED PARAMETER.”

31. For the reasons set forth above in sections IV and VI, and in my initial declaration, Barratt '470 anticipates this limitation. As discussed above in Section VI, a Motorola DSP56301 maintains the at-issue values, and the memory components thereof, which correspond with the claimed profile parameter storage device, would inherently store “the at least one signal-related parameter and the at least one channel-related parameter.”

IX. BARRATT '470 DISCLOSES "CHANNEL-RELATED PARAMETERS."

32. For the reasons set forth above in Section IV.C, and in my initial declaration, Barratt '470 anticipates this limitation. The antenna parameters of Barratt '470 are based on the channel environment, as they address co-channel interference in the disclosed spatial processing techniques (Ex. 1007 at 1:35-2:14, 2:47-51). The antenna weights or weight vectors are therefore representative of channel conditions for each remote terminal.

X. CONCLUSION

I declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Dated: October 14, 2024



Daniel van der Weide, Ph.D.