



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/607,425	10/29/2021	Felix FELLHAUER	17199US01	7749
165418	7590	11/12/2024	EXAMINER	
Xsensus / Sony			KAO, JUTAI	
100 Daingerfield Road, Suite 402			ART UNIT	
Alexandria, VA 22314			PAPER NUMBER	
			2473	
			NOTIFICATION DATE	
			DELIVERY MODE	
			11/12/2024	
			ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Xdocket@XSensus.com
Xsensuspat@XSensus.com
anaquadocketing@XSensus.com

Office Action Summary	Application No. 17/607,425	Applicant(s) FELLHAUER et al.	
	Examiner JUTAI KAO	Art Unit 2473	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/31/2024.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

- 5) ☒ Claim(s) 1-20 is/are pending in the application.
5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-20 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) ☐ All b) ☐ Some** c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 4) ☐ Other: _____

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Response to Amendment

Amendments filed on 10/31/2024 are entered. The amendments change the scopes of the previously presented claims. The current Office Action is made FINAL as necessitated by the claim amendments.

Response to Arguments

Applicant's arguments with respect to claim(s) 1-20 have been considered but are moot because the new ground of rejection does not rely on any reference applied in the prior rejection of record for any teaching or matter specifically challenged in the argument.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims the examiner presumes that the subject matter of the various claims was commonly owned as of the effective filing date of the claimed invention(s) absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and effective filing dates of each claim that was not commonly owned as of the effective filing date of the later invention in order for the examiner to consider the applicability of 35 U.S.C. 102(b)(2)(C) for any potential 35 U.S.C. 102(a)(2) prior art against the later invention.

Claim(s) 1-8, 10-11, 13-15 and 18-20 is/are rejected under 35 U.S.C. 103 as being unpatentable over Banerjea (WO 2017/180845 A1, included in IDS dated 10/29/2021) in views of Fang (US 2019/0289633) and Chu (US 10,237,891 B1).

Banerjea discloses the following features.

Regarding claim 1, a first communication device (see AP 110 in Fig. 1) comprising circuitry configured to simultaneously communicate with a group of two or more second communication devices (see STAs in Fig. 1 and see “multiple STAs to transmit and receive data on a shared wireless medium at the same time” recited in paragraph [0056]), the circuitry being configured to generate schedule information that schedules, for two or more subsequent time slots, the assignment of different resource units to the second communication devices of the group of second communication devices to indicate, per time slot or per group of time slots, which second communication device of the group shall use which resource unit for data transmission (see paragraph [0068], which recites “In some aspects, the AP may announce the **frequency hopping schedule and the allocated RUs to the selected wireless**

device in one or more trigger frames. In other aspects, the AP may announce the frequency hopping schedule to the selected wireless devices in a beacon frame, and may allocate RUs based on the frequency hopping schedule to the selected wireless devices in one or more trigger frames. In still other aspects, the AP may announce the frequency hopping schedule to the selected wireless devices using any suitable broadcast or multicast frame or packet” and see “The AP may combine the various unique frequency hopping patterns into a frequency hopping schedule, and allocate RUs to the selected wireless devices according to the frequency hopping schedule”, and see paragraph [0088] and Fig. 7A), transmit the schedule information to the group of second communication devices (see “The AP may transmit a trigger frame 610 to the stations STA1-STA4 on a DL channel. In some implementations, the trigger frame 610 may announce the frequency hopping schedule to the stations STA1-STA4, and may allocate a unique sequence of RUs to each of the stations STA1-STA4 based on the frequency hopping patterns selected by the AP” recited in paragraph [0075]), and receive data in subsequent time slots from second communication devices of the group that use the resource units according to the assignment scheduled by the schedule information for data transmission (see “The AP may receive the UL MU data 612 from the stations STA1-STA4 at time t_5 ” recited in paragraph [0081], according to trigger frame 610 as shown in Fig. 6A/6B).

Regarding claim 2, wherein the circuitry is configured to generate one or more of, a length of time slots for which the schedule information schedules the assignment of different resource units (see “RU sizes” recited in paragraph [0075]), if data transmitted in subsequent time slots are separated with a time distance and/or by data transmission



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.