



SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 83 78 32

Classification of the application (IPC):
H04B 7/06

Technical fields searched (IPC):
H04B

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X Y	WO 2020063457 A1 (INTEL CORP [US]; ZHANG YUSHU [CN] ET AL.) 02 April 2020 (2020-04-02) * paragraphs [0051] - [0061], [0085], [0090] - [0091] *	1-3, 7, 9-11 4, 5, 12, 13, 15
A	US 2018262313 A1 (NAM YOUNG-HAN [US] ET AL) 13 September 2018 (2018-09-13) * paragraphs [0451] - [0453] *	2, 10
Y	CN 110537334 A (BEIJING XIAOMI MOBILE SOFTWARE CO LTD) 03 December 2019 (2019-12-03) * paragraphs [0450] - [0456] *	4, 5, 12, 13
X	LENOVO ET AL: "Discussion of multi-beam operation", 3GPP DRAFT; R1-1906275_MULTI_BEAM_FINAL, 3RD GENERATION PARTNERSHIP PROJECT (3GPP), MOBILE COMPETENCE CENTRE ; 650, ROUTE DES LUCIOLES ; F-06921 SOPHIA-ANTIPOLIS CEDEX ; FRANCE, 13 May 2019 (2019-05-13), vol. RAN WG1, no. Reno, USA; 20190513 - 20190517 URL: http://www.3gpp.org/ftp/Meetings%5F3GPP%5FSYNC/RAN1/Docs/R1%2D1906275%2Ezip [retrieved on 13 May 2019 (2019-05-13)] XP051727727 * page 4 *	1, 6, 8, 9, 14
Y A T	CN 110868231 A (HUAWEI TECH CO LTD) 06 March 2020 (2020-03-06) * the whole document * & US 2021168714 A1 (GUAN PENG [CN] ET AL) 03 June 2021 (2021-06-03) * paragraph [0172] *	15 7 7
Y	US 2020106168 A1 (HAKOLA SAMI [FI] ET AL) 02 April 2020 (2020-04-02) * paragraphs [0004], [0005] *	4, 7, 12, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 06 November 2024	Examiner Franz, Volker
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CATEGORY OF CITED DOCUMENTS

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| X: particularly relevant if taken alone | P: intermediate document |
| Y: particularly relevant if combined with another document of the same category | T: theory or principle underlying the invention |
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| O: non-written disclosure | D: document cited in the application |
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Application number:
EP 21 83 78 32

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
Y	US 2019081675 A1 (JUNG HYEJUNG [US] ET AL) 14 March 2019 (2019-03-14) * paragraphs [0127] - [0128] *	7, 15

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 06 November 2024	Examiner Franz, Volker
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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-3, 9-11

Wherein each AGC further comprises a number of ports or layers that can be supported by the UE.

2. claims: 4, 5, 12, 13

Wherein each AGC further comprises an active panel state that indicates whether the UE can perform uplink, UL, transmission to the network node, can perform downlink, DL, reception from the network node, or can perform UL transmission to the network node and DL reception from the network node.

3. claims: 6, 8, 14

Wherein the CRIs or SSBRIs associated with different AGCs can be received simultaneously by the UE, and wherein the CRIs or SSBRIs associated with the same AGC cannot be received simultaneously by the UE. Wherein CRIs or SSBRIs in different beam reports associated with different AGCs can be received simultaneously by the UE, wherein the CRIs or SSBRIs in different beam reports associated with the same AGC cannot be received simultaneously by the LTE, and wherein the CRIs or SSBRIs in the same beam report cannot be received simultaneously by the UE.

4. claims: 7, 15

Further comprising: selecting and activating a panel by the UE according to the AGC in an event that the beam report is associated with one AGC configured by the network node; or wherein the method further comprises: receiving a set of Transmission Configuration Indicator, TCI, states configured by the network node via a radio resource control, RRC, signaling, wherein each TCI state associates with an AGC; or wherein the method further comprises: reporting a panel-related capability to the network node, wherein the panel-related capability comprises at least one of a maximum number of active panels, a maximum number of panels, a maximum number of configured AGCs, a maximum number of ports or layers of a panel, and a supported active panel state of a panel.

All further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for all claims.

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

Place of search Munich	Date of completion of the search 06 November 2024	Examiner Franz, Volker
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ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:
EP 21 83 78 32

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 06-11-2024
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2020063457 A1	02-04-2020	US 2021258811 A1 WO 2020063457 A1	19-08-2021 02-04-2020
US 2018262313 A1	13-09-2018	CN 110574328 A KR 20190119659 A US 2018262313 A1 WO 2018164515 A1	13-12-2019 22-10-2019 13-09-2018 13-09-2018
CN 110537334 A	03-12-2019	BR 112021021327 A2 CN 110537334 A EP 3958600 A1 JP 7313474 B2 JP 2022529846 A KR 20210153686 A SG 11202111694W A US 2023080333 A1 WO 2020215335 A1	14-12-2021 03-12-2019 23-02-2022 24-07-2023 24-06-2022 17-12-2021 29-11-2021 16-03-2023 29-10-2020
CN 110868231 A	06-03-2020	BR 112021002452 A2 CN 110868231 A EP 3820050 A1 US 2021168714 A1 WO 2020030010 A1	04-05-2021 06-03-2020 12-05-2021 03-06-2021 13-02-2020
US 2020106168 A1	02-04-2020	US 2020106168 A1 US 2023299467 A1 WO 2020064267 A1	02-04-2020 21-09-2023 02-04-2020
US 2019081675 A1	14-03-2019	CN 111052627 A CN 111095845 A EP 3682561 A2 EP 3682587 A1 US 2019081675 A1 US 2019081753 A1 US 2020358574 A1 US 2023208579 A1 WO 2019048932 A2 WO 2019048934 A1	21-04-2020 01-05-2020 22-07-2020 22-07-2020 14-03-2019 14-03-2019 12-11-2020 29-06-2023 14-03-2019 14-03-2019