



## SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 18 74 72 48

Classification of the application (IPC):  
H04B 7/155

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	US 2016135059 A1 (ZHAN HONGTAO [US]) 12 May 2016 (2016-05-12)	1, 2, 6, 12-15
Y	* paragraphs [0031] - [0032], [0035], [0039] - [0046], [0053] - [0060], [0078] - [7983]; figures 2-5a *	3-5
Y	US 2013077502 A1 (GAINEY KENNETH M [US] ET AL) 28 March 2013 (2013-03-28) * abstract; claim 1; figures 1-2 * * paragraph [0028] *	3
Y	US 2010321110 A1 (ICHITSUBO IKUROH [JP] ET AL) 23 December 2010 (2010-12-23) * paragraphs [0005], [0035], [0047], [0067]; examples 3a,3b *	4, 5
Y	US 2015029909 A1 (ASHWORTH CHRISTOPHER K [US] ET AL) 29 January 2015 (2015-01-29) * paragraphs [0067], [0132]; figure 2a *	3
A		1

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 The Hague	Date of completion of the search 07 October 2020	Examiner Staeger, Rainer
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### CATEGORY OF CITED DOCUMENTS

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
A: technological background	E: earlier patent document, but published on, or after the filing date
O: non-written disclosure	D: document cited in the application
& : member of the same patent family, corresponding document	L: document cited for other reasons

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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: 1-6, 12-15

Signal booster

2. claims: 7-11

Triplexer

None of the further search fees have been paid within the fixed time limit. The present (supplementary) European search report has been drawn up for those parts of the European patent application which relate to the first mentioned in the claims, namely claims: 1-6, 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 The Hague	Date of completion of the search 07 October 2020	Examiner Staeger, Rainer
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## ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 18 74 72 48

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 07-10-2020  
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	
US 2016135059	A1	12-05-2016	CA 2814303 A1	26-10-2014
			US 8867572 B1	21-10-2014
			US 2015009889 A1	08-01-2015
			US 2016088494 A1	24-03-2016
			US 2016135059 A1	12-05-2016
			US 2017041809 A1	09-02-2017
			US 2018227770 A1	09-08-2018
			US 2020029226 A1	23-01-2020
US 2013077502	A1	28-03-2013	CN 103828261 A	28-05-2014
			EP 2759074 A1	30-07-2014
			JP 5813882 B2	17-11-2015
			JP 2014531832 A	27-11-2014
			KR 20140069251 A	09-06-2014
			US 2013077502 A1	28-03-2013
			WO 2013044074 A1	28-03-2013
US 2010321110	A1	23-12-2010	NONE	
US 2015029909	A1	29-01-2015	NONE	