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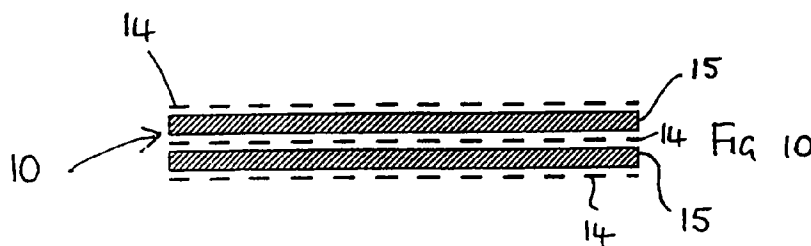
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### (54) Frequency selective surface devices

(57) A frequency selective surface device separates or combines two channels by using two or three spaced layers of resonant elements such as loops 14 which are coupled and which have interactive effects between the layers such that the relatively broad transmission and reflection bands characteristic of the resonant elements are modified by reinforcement of multiple reflections

between the layers in the manner of a Fabry-Perot etalon in order to increase the sharpness of the transition of the transmission and reflection bands and thereby to permit combination or separation of closely spaced channels.



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# EUROPEAN SEARCH REPORT

Application Number  
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 4 125 841 A (MUNK BENEDIKT A) 14 November 1978 * abstract * * column 2, line 29-38 * * column 3, line 38-42 * * column 5, line 61-67 * * column 14, line 26-28 * * figures 1,2,6-9,16,18 *	1-4	H01Q15/00
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Y	ONDE ELECTRIQUE, vol. 71, no. 5, 1 September 1991, pages 54-61, XP000263123 ABBA P ET AL: "CONCEPTION ET REALISATION D'UN RADIOMETRE EN ONDES MILLIMETRIQUES POUR LE SONDAGE VERTICAL DE L'ATMOSPHERE" * page 54, column 1, line 10-15 * * page 55, column 4, line 6-24 *	5	
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	BELL SYSTEM TECHNICAL JOURNAL, vol. 54, no. 2, February 1975, USA, pages 263-283, XP002030965 ARNAUD, J.A. ET AL: "Resonant-Grid Quasi-Optical Diplexers" * page 264, line 17-42 * -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 16 May 1997	Examiner Van Dooren, G
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... &amp; : member of the same patent family, corresponding document</p>			

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