

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 519 308 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92109750.7**(51) Int. Cl.⁵: **H01P 7/06, H01P 7/10,
H01P 1/208**(22) Date of filing: **10.06.92**(30) Priority: **19.06.91 IT MI911687**(43) Date of publication of application:
23.12.92 Bulletin 92/52(84) Designated Contracting States:
DE ES FR GB GR IT SE(88) Date of deferred publication of the search report:
04.08.93 Bulletin 93/31(71) Applicant: **SIEMENS TELECOMUNICAZIONI
S.P.A.**

**SS. 11 Padana Superiore Km. 158
I-20060 Cassina de Pecchi (Milano)(IT)**

(72) Inventor: **Abbiati, Antonio**
Via Cap. G. Antoninetti, 62
I-20079 S. Angelo Lodigiano (MI)(IT)
Inventor: **Agorri, Iginio Renzo**
Via Indipendenza, 9/11
I-20050 Mezzago (MI)(IT)
Inventor: **Buoli, Carlo**
Via di Dietro, 21
I-41030 Mirandola (MO)(IT)

(54) **Resonating microwave cavity with double dielectric resonator and tunable resonance frequency.**

(57) The primary dielectric resonator (RDP) is sealed in a quartz support (SQP) which holds up a secondary dielectric resonator (RDS) and keeps it at a fixed distance from the primary resonator. Tuning is achieved by a metal screw (VS) with adjustable distance from the secondary resonator. There is obtained a strong structure which minimizes the negative effects of mechanical vibrations on the resonance frequency whose adjustment is linear with the distance of the screw from the resonator. In addition the Q-factor of the cavity remains constant with the variation of the tuning frequency.

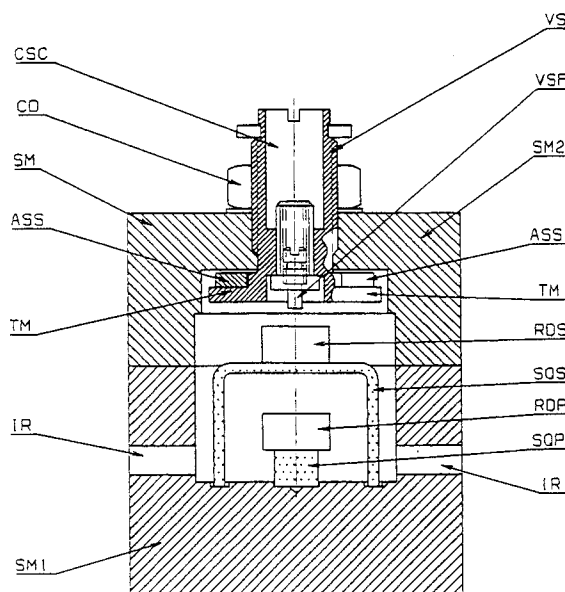


FIG. 1

EP 0 519 308 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 10 9750

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.5)
D,A	US-A-4 565 979 (FIEDZIUSZKO) * the whole document * ---	1,3,7	H01P7/06 H01P7/10 H01P1/208
A	15TH EUROPEAN MICROWAVE CONFERENCE- PROCEEDINGS;9-13 september 1985,Paris,FR MICROWAVE EXHIBITIONS AND PUBLISHERS LTD,Tunbridge Wells,GB,1985 K. WADA et al.:"Wideband tunable DR VCO" pages 407-412 *page 408,lines 1-3;figure 1(a)* ---	1	
A	EP-A-0 337 371 (SIEMENS AG) * column 1, line 52 - column 2, line 41; figure 1 * ---	1,3,4,7	
A	PATENT ABSTRACTS OF JAPAN vol. 11, no. 59 (E-482)(2506) 24 February 1987 & JP-A-61 218 202 (NIPPON SOKEN INC) 27 September 1986 * abstract * -----	5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			H01P H03B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 03 JUNE 1993	Examiner DEN OTTER A.M.
CATEGORY OF CITED DOCUMENTS 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 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 ----- & : member of the same patent family, corresponding document			