

Title (en)  
Radioholographic aeriels apparatus and method therefor

Title (de)  
Verfahren und Herstellung eines Radiohogramms

Title (fr)  
Méthode et appareil pour la production d'hogrammes

Publication  
**EP 1291972 A1 20030312 (EN)**

Application  
**EP 01120855 A 20010830**

Priority  
EP 01120855 A 20010830

Abstract (en)  
The invention concerns a radio engineering and can be used for construction of radioholographic aeriels with the required diagram of an orientation (D.O.) mainly in a range of a MICROWAVE, including flat radioholographic aeriels for satellite communication. The application of a way provides expansion of classes of created aeriels, high accuracy of reproduction required D.O., opportunity of reduction of the sizes of flat radioholographic aeriels. Record of the radiohologram carry out by an electrical way. Thus use a subject radiowave as a field complex-connected required D.O. The binary radiohologram, made by results of record, reproduces required D.O. In the flat radioholographic aerial irradiator (receiver) 3 is placed at an end face flat binary radiohologram and is combined by the phase centre with the centre O; the concentric circles which have been carried out with a step, equal to length wave  $\lambda$  of irradiator. On concentric circles are located or arc metal strips 18, or strips 18 and arc of crack 21, or arc of crack 20, displaying structure of radiohologram. The introduction of the metal screen 16 provides sharp-directed D.O. in perpendicular plane; direction and opportunity of reduction of thickness radiohologram up to a level commensurable with  $\lambda/4\sqrt{\epsilon}$  where  $\epsilon$  - dielectrical permeability of dielectrical material of substrate 17. <IMAGE>

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IPC 8 full level  
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CPC (source: EP)  
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Citation (search report)

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