

Title (en)
Radioholographic aeralis apparatus and method therefor

Title (de)
Verfahren und Herstellung eines Radiohologramms

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

Publication
EP 1291972 A1 20030312 (EN)

Application
EP 01120855 A 20010830

Priority
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Abstract (en)
The invention concerns to a radio engineering and can be used for construction of radioholographic aeralis with the required diagram of an orientation (D.O.) mainly in a range of a MICROWAVE, including flat radioholographic aeralis for satellite communication. The application of a way provides expansion of classes of created aeralis, high accuracy of reproduction required D.O., opportunity of reduction of the sizes of flat radioholographic aeralis. 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 λ 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 ϵ - dielectrical permeability of dielectrical material of substrate 17. <IMAGE>

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Citation (search report)

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