

Title (en)

METHOD AND DEVICE FOR MEASURING THE RADIATION PATTERN OF A RADIATIVE SOURCE IN AN ECHOGENIC MEDIUM

Title (de)

VERFAHREN UND VORRICHTUNG ZUR MESSUNG DES STRAHLENMUSTERS EINER STRAHLUNGSQUELLE IN EINEM ECHOGENEN MEDIUM

Title (fr)

PROCEDE ET DISPOSITIF DE MESURE DE DIAGRAMME DE RAYONNEMENT DE SOURCE RADIATIVE EN MILIEU ECHOGENE

Publication

EP 3204781 A2 20170816 (FR)

Application

EP 15788153 A 20151008

Priority

- FR 1459768 A 20141010
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Abstract (en)

[origin: WO2016055739A2] The device for measuring a radiation pattern of a radiative source (103) of maximum linear size a emitting radiation in a frequency range F_i corresponding to a wavelength range λ_i comprises parallel reflective plates (101, 102) oriented along a longitudinal axis Y, between which plates is placed centrally the radiative source (103). The distance d between the radiative source (103) and each of the plates (101, 102) is larger than or equal to each of the wavelengths λ . At least one probe (104) that is sensitive to the far-field amplitude and phase of the radiation of the radiative source (103) is also placed between the plates (101, 102) at a distance DR from the radiative source (103), the probe furthermore being shifted from the radiative source along a transverse axis X perpendicular to the longitudinal axis Y by a value e larger than or equal to $A_i/10$. The distance DR is larger than or equal to $2a^2\lambda_i$. A device (105, 106) is provided to move the probe (104) stepwise in the transverse direction X. The probe (104) is connected to a vector network analyser (111). A processing unit (110) receives data from the vector network analyser (111), controls the device (105, 106) to move the probe (104) stepwise and acquires, on each step, data from the vector network analyser (111) for a plurality of frequencies F_i separated by a frequency step size of ΔF .

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