

Title (en)

APPARATUS FOR COUPLING HOLLOW WAVEGUIDE TO PLANAR TRANSMISSION MEDIA, AND RADAR SYSTEM COMPRISING SUCH AN APPARATUS

Title (de)

VORRICHTUNG ZUR KOPPLUNG EINES HOHLWELLENLEITERS MIT PLANAREN ÜBERTRAGUNGSMEDIEN UND RADARSYSTEM MIT EINER SOLCHEN VORRICHTUNG

Title (fr)

APPAREIL POUR COUPLER UN GUIDE D'ONDES CREUX À DES SUPPORTS DE TRANSMISSION PLANS, ET SYSTÈME RADAR COMPRENANT UN TEL APPAREIL

Publication

EP 3942647 A1 20220126 (EN)

Application

EP 20712913 A 20200318

Priority

- EP 19164247 A 20190321
- EP 2020057442 W 20200318

Abstract (en)

[origin: WO2020187983A1] Apparatus (100) comprising - a dielectric substrate (101; 152) having a top plane and an opposite bottom plane with an at least partial metallization (153), - a ridged waveguide (200), - a metal patch (104), integrated in said dielectric substrate (101; 152), which comprises at least one conductive via hole (108) connecting said metal patch (104) and said metallization (153), - a slot (103) being provided in said metal patch (104) and having an orientation with respect to a first axis (x) of said top plane being defined by an angle in the range $0^\circ < \text{angle} < 360^\circ$, wherein said ridged waveguide (200) - is field-coupled to said slot (103) via an air gap, which extends parallel to said top plane, so as to be able to couple an electromagnetic wave travelling along said ridged waveguide (200) via said air gap into said slot (103) and/or to couple an electromagnetic wave emitted by said slot (103) via said air gap into said ridged waveguide (200).

IPC 8 full level

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