Title (en)

ELECTROMAGNETIC WAVE TRANSMISSION STRUCTURE

Title (de

STRUKTUR ZUR ÜBERTRAGUNG ELEKTROMAGNETISCHER WELLEN

Title (fr)

STRUCTURE DE TRANSMISSION D'ONDE ÉLECTROMAGNÉTIQUE

Publication

EP 4145636 B1 20240306 (EN)

Application

EP 22152928 A 20220124

Priority

- TW 110148503 A 20211223
- US 202163254537 P 20211012
- US 202163241503 P 20210907

Abstract (en

[origin: EP4145636A1] An electromagnetic wave transmission structure including a substrate, at least one transmission line, antennas, and tunable dielectric units is provided. The transmission line includes a first extending portion and second extending portions. The first extending portion is extended in a first direction. The second extending portions are respectively extended from two opposite edges of the first extending portion, and an extending direction thereof is parallel to a second direction. The second extending portions are arranged along the first direction. The antennas are disposed near the at least one transmission line. The tunable dielectric units are overlapped with portions of the at least one transmission line located between the antennas. Each tunable dielectric unit has an overlapped first electrode layer and controllable dielectric layer. The controllable dielectric layer is disposed between the first electrode layer and the at least one transmission line.

IPC 8 full leve

H01Q 3/44 (2006.01); H01Q 25/00 (2006.01)

CPC (source: EP

H01Q 3/44 (2013.01); H01Q 25/005 (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 4145636 A1 20230308; EP 4145636 B1 20240306; CN 115775961 A 20230310; JP 2023038918 A 20230317; JP 7371184 B2 20231030

DOCDB simple family (application)

EP 22152928 A 20220124; CN 202210837317 A 20220715; JP 2022135023 A 20220826