

Title (en)
POWER FEEDER

Title (de)
LEISTUNGSZUFÜHRER

Title (fr)
LIGNE D'ALIMENTATION EN ÉNERGIE

Publication
EP 3121900 A4 20170322 (EN)

Application
EP 14891056 A 20140430

Priority
CN 2014076655 W 20140430

Abstract (en)
[origin: EP3121900A1] Embodiments of the present invention disclose a feeding apparatus, which may include a horn antenna 10, a dielectric substrate 20, and a transmission line 30 and a grounding portion 40 that are disposed on the dielectric substrate 20, where the horn antenna 10 includes a horn opening end 11 and a horn feeding input end 12 that are disposed opposite to each other and includes a cavity located between the horn opening end 11 and the horn feeding input end 12, where the cavity includes a first inner surface 13; and the transmission line 30 includes a straight portion 31 and a bent portion 32, where the grounding portion 40 is laid at two sides of the straight portion 31, the straight portion 31, the bent portion 32, and the grounding portion 40 extend into the cavity through the horn feeding input end 12, the straight portion 31 is attached to the first inner surface 13, and a particular angle is formed between the bent portion 32 and the first inner surface 13. A transmission structure for sending a signal to an antenna can be simplified and a transmission distance can be shortened, so that a free space loss is reduced in a transmission process. In addition, a transmission line and a horn antenna with a high gain are coplanar, and integration of the horn antenna on a circuit board is facilitated.

IPC 8 full level
H01Q 13/02 (2006.01)

CPC (source: EP)
H01Q 13/02 (2013.01)

Citation (search report)

- [Y] US 2398095 A 19460409 - MARTIN KATZIN
- [A] US 3495062 A 19700210 - PUSCHNER HERBERT AUGUST
- [X] BO PAN ET AL: "A 60-GHz CPW-Fed High-Gain and Broadband Integrated Horn Antenna", IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, IEEE SERVICE CENTER, PISCATAWAY, NJ, US, vol. 57, no. 4, 1 April 2009 (2009-04-01), pages 1050 - 1056, XP011255062, ISSN: 0018-926X
- [Y] YUAN LI ET AL: "A Fully Micromachined W-Band Coplanar Waveguide to Rectangular Waveguide Transition", MICROWAVE SYMPOSIUM, 2007. IEEE/MTT-S INTERNATIONAL, IEEE, PI, 1 June 2007 (2007-06-01), pages 1031 - 1034, XP031112104, ISBN: 978-1-4244-0687-6
- See references of WO 2015165098A1

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