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Patent Number(s): WO2012076994-A1

Title: Passive component for transmission and manipulation electromagnetic signals comprises corrugated or smooth wall unit alone or assembly corrugated or smooth wall unit in hollow guiding rod

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Derwent Primary Accession No.: 2012-G82497

Abstract: NOVELTY - A passive component comprises corrugated (3) or smooth wall unit alone or an assembly corrugated or smooth wall unit in hollow guiding rod (5). An external shape the unit(s) corresponds to the internal shape the hollow guiding rod. The units or entire assembly is metal plated to form the component.

USE - Passive component for transmission and manipulation electromagnetic signals 30 GHz to 100 THz (claimed).

ADVANTAGE - The component includes corrugations providing for low losses in transmission.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) manufacturing corrugated, surface periodic or smooth wall component for the transmission and manipulation electromagnetic signals; and

(2) a photonic band gap like structure in 1D, 2D or 3D.

DESCRIPTION DRAWING(S) - The drawing is a perspective view basic corrugated units to form a corrugated component.

Corrugated unit (3)

Ring (4)

Hollow guiding rod (5)

Drawing:

Derwent Class Code(s): W02 (Broadcasting, Radio and Line Transmission Systems)

Derwent Manual Code(s): W02-A01B2A; W02-A07A; W02-B02B

IPC: H01P-011/00; H01P-003/123; H01Q-013/02

Patent Details:

Patent Number	Publ. Date	Main IPC	Week	Page Count	Language
WO2012076994-A1	14 Jun 2012	H01P-003/123		201241 Pages: 27	English

Application Details and Date:

WO2012076994-A1 WOIB053831 01 Sep 2011

Priority Application Information and Date:

US421293P 09 Dec 2010

Designated States:

WO2012076994-A1:

(National): AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BG; BH; BR; BW; BY; BZ; CA; CH; CL; CN; CO; CR; CU; CZ; DE; DK; DM; DO; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; GT; HN; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LT; LU; LY; MA; MD; ME; MG; MK; MN; MW; MX; MY; MZ; NA; NG; NI; NO; NZ; OM; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SC; SD; SE; SG; SK; SL; SM; ST; SV; SY; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW

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