

Title (en)  
FOLDED CAVITY-BACKED SLOT ANTENNA

Title (de)  
GEFALTETE HOHLRAUMGESTÜTZTE SCHLITZANTENNE

Title (fr)  
ANTENNE A FENTE A CAVITE REPLIEE

Publication  
**EP 1334536 A2 20030813 (EN)**

Application  
**EP 01968077 A 20010824**

Priority  
• US 38564600 A 20000827  
• US 0126273 W 20010824

Abstract (en)  
[origin: WO0219468A2] An antenna that includes a housing having a plurality of walls forming an enclosure, a slot formed in a first wall of the housing, and, a folded cavity formed in a second wall of the housing opposite the first wall. The folded cavity is preferably a compound cavity that includes a first cavity portion and a second cavity portion joined around their entire respective peripheries by a fold or shelf. Any convenient RF transmission line, e.g., a waveguide or coaxial cables, can be used to inject RF energy into the folded cavity. In certain embodiments, both the width and length of the housing are each less than  $<1/2>$  of a free-space wavelength, and the antenna is capable of producing very accurate circular polarization and is capable of handling very high power levels, e.g., 10 kW, thereby making it suitable for high power applications which require extremely compact antenna elements, e.g., wide-scan phased array antennas.

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IPC 8 full level  
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IPC 8 main group level  
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CPC (source: EP KR)  
**H01P 7/06** (2013.01 - EP); **H01Q 13/10** (2013.01 - KR); **H01Q 13/18** (2013.01 - EP)

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