

Title (en)  
Patch antenna

Title (de)  
Patchantenne

Title (fr)  
Antenne Patch

Publication  
**EP 2477275 A1 20120718 (EN)**

Application  
**EP 11360006 A 20110112**

Priority  
EP 11360006 A 20110112

Abstract (en)  
A compact patch antenna for use in an antenna array in a wireless telecommunications network. The patch antenna is operable to receive a feed signal and transform that feed signal to a radiated output signal. The compact patch antenna comprises: a ground plate and a radiating element operable to radiate the output signal. The radiating element is located substantially parallel to, and spaced from, the ground plate. The antenna further comprises a capacitive loading element extending from the ground plate. The loading element is arranged to define a cavity between the radiating element and the ground plate, and is spaced from the radiating element to define a predetermined capacitive gap between the radiating element and the capacitive loading element. The predetermined capacitive gap is selected to alter capacitance of the cavity. The antenna also comprises a differential signal feed mechanism operable to couple the feed signal to the radiating element, and alter inductance of the cavity in a predetermined manner selected to substantially compensate for a reduction in output signal bandwidth caused by the alteration to the cavity capacitance caused by the predetermined capacitive gap.

IPC 8 full level  
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Citation (search report)  
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Designated extension state (EPC)  
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