

Title (en)
Radio antenna.

Title (de)
Funkantenne.

Title (fr)
Antenne radio.

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Application
EP 94108577 A 19940604

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Abstract (en)
In an antenna attached to a casing of a radio apparatus, the antenna is used being extended during communication but retracted during no-communication. The antenna includes a first coil-shaped antenna element (10) and a second rod-shaped antenna element (14), and these two antenna elements are coupled to each other via a trap circuit (12,16,18;40,50). When extended, both the first and second antenna elements (10,14) project outside the casing, so that only the second antenna element (14) is connected to a radio circuit via a feeding member. When retracted, the second antenna element (14) is kept inside the casing and only the first antenna element (10) is kept outside the casing, so that only the first antenna element (10) is connected to the radio circuit via the feeding member (30). The trap circuit (50) is a parallel resonance circuit composed of a capacitance (40) and an inductance (12). The resonance frequency of the trap circuit is determined to be an intermediate value between those of the first and second antenna elements. Owing to the presence of the trap circuit, both the first and second antenna elements can function independently.
<IMAGE>

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IPC 8 full level
H01Q 1/10 (2006.01); **H01Q 1/24** (2006.01); **H01Q 5/02** (2006.01); **H01Q 5/15** (2015.01)

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H01Q 1/10 (2013.01); **H01Q 1/244** (2013.01); **H01Q 5/321** (2015.01)

Citation (search report)
• [YA] GB 2030778 A 19800410 - SHAKESPEARE CO
• [A] US 4730195 A 19880308 - PHILLIPS JAMES P [US], et al
• [A] US 4496952 A 19850129 - NEWCOMB DONALD R [US]
• [A] EP 0522806 A2 19930113 - NIPPON TELEGRAPH & TELEPHONE [JP]
• [A] EP 0467822 A2 19920122 - GALTRONICS LTD [IL]
• [A] EP 0516490 A2 19921202 - TECHNOPHONE LTD [GB]
• [DY] PATENT ABSTRACTS OF JAPAN vol. 16, no. 37 (E - 1160) 29 January 1992 (1992-01-29)

Cited by
EP0773633A3; US5606327A; US6016431A; EP0755091A4; US6031493A; DE19741792B4; EP1052722A3; US5999133A; US6057807A; CN1110105C; CN107221742A; EP1345283A1; US5995064A; EP0814536A3; EP0892457A1; US6115000A; AU747529B2; US6336036B1; US9806396B2; US6515625B1; US6301489B1; US6208301B1; SG92615A1; GB2326531A; US6097341A; AU740076B2; GB2326531B; CN1129975C; EP0772255A1; US6011516A; EP0896384A3; WO0003454A1; WO9637007A1; WO9917399A1; WO9849740A1; US6232924B1; US6249688B1; JP201552227A; WO9843312A1; WO9730489A1

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