

Title (en)
Radiating coaxial high-frequency cable

Title (de)
Abstrahlendes koaxiales Hochfrequenzkabel

Title (fr)
Cable coaxial rayonnant haute fréquence

Publication
EP 1139491 B1 20050928 (DE)

Application
EP 01440058 A 20010308

Priority
DE 10015379 A 20000328

Abstract (en)
[origin: US6426685B2] A radiating coaxial radio-frequency cable is specified, that comprises an inner conductor, a dielectric surrounding the latter and a tubular outer conductor disposed above the latter and concentric with the inner conductor. In the outer conductor, mutually separated openings (5) are provided that are disposed in a mutually offset manner in the circumferential direction of the cable and, in the longitudinal direction of the latter, are disposed along surface lines extending mutually in parallel in rows (R1, R2, R3) extending over the entire length of the cable. All the openings (5) extend essentially in the circumferential direction of the cable. For as broadband an operation of the cable as possible, in a first row (R1) for operating a frequency range used in mobile radio, openings (5) are disposed in groups (G) in a constantly repeating pattern whose first openings (5), viewed in each case in the axial direction of the cable, are at a mutual spacing (A1) corresponding to half the wavelength of the lowest frequency to be transmitted in the frequency range. In addition, in each group (G), further openings (5) are provided to take account of integral multiples of the lowest frequency to be transmitted in the frequency range. Further openings (5) are situated in at least one second row (R2) on a surface line other than that of the openings (5) of the first row (R1) and are disposed over the entire length of the cable at mutual constant spacing that is less than half the wavelength of the highest frequency to be transmitted over the cable.

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