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(21) International Application Number: PCT/GB97/00085 (22) International Filing Date: 10 January 1997 (10.01.97) (30) Priority Data: 9601250.5 ✓ 23 January 1996 (23.01.96) ✓ GB 9610581.2 ✓ 21 May 1996 (21.05.96) ✓ GB (71) Applicant (for all designated States except US): SYMMETRI-COM, INC. [US/US]; 85 West Tasman Drive, San Jose, CA 95143-1703 (US). PLS CHECK PFB (72) Inventor; and (75) Inventor/Applicant (for US only): LEISTEN, Oliver, Paul [GB/GB]; 355 Welford Road, Kingsthorpe, Northampton NN2 8PT (GB). PLS CHECK PFB (74) Agents: BLATCHFORD, William, Michael et al.; Withers & Rogers, 4 Dyer's Buildings, Holborn, London EC1N 2JT (GB).			(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UO), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published With international search report.

(54) Title: ANTENNA FOR FREQUENCIES IN EXCESS OF 200 MHz

(57) Abstract

A miniature antenna (10) for operation at frequencies in excess of 200 MHz has a ceramic core (12) in the form of a cylindrical rod having a relative dielectric constant greater than 5. Plated on the outer surfaces of the core is an antenna element structure comprising a single pair of oppositely disposed helical elements (10A, 10B) having a common central axis coincident with the central axis of the core. At a distal end of the antenna, they are connected to a coaxial feeder structure passing axially through the core, and at their proximal ends they are connected to the rim of a cylindrical trap conductor (20) which, at the proximal end of the core is coupled to the screen of the feeder structure. At the operating frequency, the antenna behaves as a loop, the radiation response having nulls directed generally perpendicularly on each side of a plane containing the central axis of the core and the connections of the helical elements with the feeder structure and with the conductive sleeve. The antenna is intended primarily for a handheld communication unit such as a cellular or cordless telephone handset, the present of the nulls in the radiation pattern reducing radiation into the user's head.

