

**Title:** Microstrip antenna array for multiband dedicated short range communications systems

**Author(s):** Varum, Tiago<sup>1</sup>; Matos, João<sup>2</sup>; **Pinho, Pedro**<sup>3</sup>; Abreu, Ricardo<sup>1</sup>; Oliveira, Arnaldo<sup>2</sup>; Lopes, Jorge<sup>4</sup>

**Source:** Microwave and Optical Technology Letters

**Volume:** 53 **Issue:** 12 **Pages:** 2794-2796 **DOI:** 10.1002/mop.26394 **Published:** Dec 2011

**Document Type:** Article

**Language:** English

**Abstract:** Dedicated Short Range Communications (DSRC) is the key enabling technology for the present and future vehicular communication for various applications, such as safety improvement and traffic jam mitigation. This paper describes the development of a microstrip antenna array for the roadside equipment of a DSRC system, whose characteristics are according with the vehicular communications standards. The proposed antenna, with circular polarization, has a wide bandwidth, enough to cover the current European DSRC 5.8 GHz band and the future 5.9 GHz band for next generation DSRC communications. (C) 2011 Wiley Periodicals, Inc. Microwave Opt Technol Lett 53: 2794-2796, 2011; View this article online at wileyonlinelibrary.com. DOI 10.1002/mop.26394

**Author Keywords:** Microstrip Antenna; Dedicated Short Range Communications; Circular Polarization; Antenna Bandwidth

**Reprint Address:** Varum, T (reprint author), Inst Telecomunicações, Aveiro, Portugal.

**Addresses:**

1. Inst Telecomunicações, Aveiro, Portugal
2. Univ Aveiro, Dept Engrn Elect Telecomunicações & Informática, Inst Telecomunicações, P-3800 Aveiro, Portugal
3. Inst Super Engrn Lisboa, Inst Telecomunicações, Aveiro, Portugal
4. Brisa Inovação & Tecnol, Aveiro, Portugal

**E-mail Address:** tiago.varum@ua.pt

**Publisher:** Wiley-Blackwell

**Publisher Address:** Commerce Place, 350 Main St, Malden 02148, MA USA

**ISSN:** 0895-2477

**Citation:** VARUM, Tiago; MATOS, João; PINHO, Pedro; ABREU, Ricardo; OLIVEIRA, Arnaldo; LOPES, Jorge - Microstrip antenna array for multiband dedicated short range communications systems. Microwave and Optical Technology Letters. ISSN 0895-2477. Vol. 53, n.º 12 (2011) p. 2794-2796.