Abstracts

A compact Ka-band 156 Mbps transceiver for a wireless LAN system using PTFE/FR-4 laminated MCMs

K. Takahashi, S. Fujita, M. Inoue, Gang Wu and H. Yabuki. "A compact Ka-band 156 Mbps transceiver for a wireless LAN system using PTFE/FR-4 laminated MCMs." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 787-790 vol.2.

A millimeter-wave radio access system has a number of features that makes it appealing as one approach to broadband communications. However, for a millimeterwave system to come into wide use, it must be miniaturized and the associated costs reduced. We have succeeded in realizing a compact 156 Mbps radio transceiver with a 38 GHz band optimizing RF architecture. We also adopted newly developed three-dimensional laminated MCMs using low cost plastic materials. It was confirmed in the initial experiments that this millimeter-wave wireless LAN equipment can cover a sufficient service area for broadband telecommunications in an indoor environment.

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