

Abstracts

Smart antenna system implementation based on digital beam-forming and software radio technologies

J. Wu, W.-X. Sheng, K.-P. Chan, W.-K. Chung, K.-K.M. Cheng and K.-L. Wu. "Smart antenna system implementation based on digital beam-forming and software radio technologies." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 323-326 vol. 1.

This paper presents the design and implementation of a complete receiving smart antenna system. By using software radio techniques, the system can be re-programmed to meet different modulation standards. The platform consists of antenna array, RF module, digital IF module and digital signal processing module. Digital beam-forming and demodulation algorithms are all Implemented on DSP. Experimental results are shown for both anechoic chamber and outdoor measurements.

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