Abstracts

A SAW Matched Filter Based Spread Spectrum Technique for Indoor Multiple Access Systems

Z. Zhang, F. Seifert and R. Weigel. "A SAW Matched Filter Based Spread Spectrum Technique for Indoor Multiple Access Systems." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 899-902.

Surface Acoustic Wave (SAW) tapped delay lines and convolves functioning as Matched Filters (MFs) are of superior advantages in broadband spread spectrum communication systems in comparison to digital signal processors, SAW MFs allow indoor systems to have a bandwidth larger than the coherence bandwidth of the indoor radio channel. A multiple access technique called Time Code Division Multiple Access (TCDMA) based on SAW MFs is proposed. Using Gold codes of length 128 as spreading codes, our uplink performance simulation results reveal the capacity of TCDMA in a typical indoor cell.

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