

Digital Beamforming In Wireless Communications

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Beamforming can be used at both the transmitting and receiving ends in order to achieve spatial selectivity. The improvement compared with omnidirectional reception/tra

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Millimeter wave, 5G cellular, Low resolution quantizers, Digital beamforming. I. INTRODUCTION The need for more bandwidth, driven by ever higher demand, has brought millimeter wave (mmWave) communication into the spotlight as an enabling technology for the 5th generation (5G) wireless communication systems.

A Case for Digital Beamforming at mmWave

Digital beamforming is implemented at the modem, which is a prototype based on a millimeter wave (mmWave) communication product. Moreover, suitable converter and signal conditioning boards as an interface to the THz frontends have been fabricated and utilized for the experimental setup.

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