



WINDOWING TECHNIQUES FOR ICI MITIGATION IN MULTICARRIER SYSTEMS (TueAmOR7)

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✳ Abstract :

In multicarrier systems, the time variation of the multipath channel generates intercarrier interference (ICI). In this paper, we investigate ICI mitigation techniques that rely on a band approximation of the minimum mean-squared error (MMSE) block linear equalizer (BLE). We show that windowing is an effective method to reduce the ICI at the output of the BLE. We also point up that receiver windowing is more convenient than transmitter windowing. Finally, we show that the windowed MMSE-BLE outperforms an improved MMSE-BLE that takes into account the covariance of the ICI neglected in the band approximation.