Sounding Reference signal measurement in LTE system

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***(Pt9)Abstract*—** The SRS are physical signals transmitted in uplink to enable the eNB to estimate the CSI over a range of frequencies in LTE system. The estimation of the CSI assists the eNB scheduler to properly allocated radio resource to the UE. The SRS transmission can be also be used to support downlink beamforming.The sub-frame in which SRS is transmitted by any UE within the cell is signaled via cell specific broadcast signaling, there are 15 possible sets of subframe in which SRS may be transmitted within each radio frame. The SRS is based on the extended zadoff-chu sequence and transmitted in the last SC-FDMA symbol of an uplink subframe, the SRS transmitted by the UEs are multiplexed in the time and freq. domain through configuring SRS periodicity SRS, frequency comb pattern, and SRS bandwidth.

Different sets of UE-specific sounding signals are independently allocated for SRS transmission, including transmissi on bandwidth, frequency comb pattern, cyclic shift.

In this paper, transmission subframe, bandwidth, freq. comb pattern, for it suggests ways to reduce the measuremen t performance and HW complexity of the UE between the Sounding RS separated by a Cyclic shift value and Timin g offset measurement method.

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***Keyword*—LTE,SRS**

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