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The spatiotemporal structure of density fluctuations measured by Beam Emission Spectroscopy with slit-shaped sightlines in the Large Helical Device is presented. Figures (a) and (b) are the cross-correlation functions of BES signals with a magnetic probe signal as a reference in the poloidal direction and the radial direction, respectively. Poloidal and radial spatial distributions of the phase with respect to time are shown in Fig. (c) and Fig. (d), respectively. The density fluctuation measured at the outboard side on the midplane in the high beta plasma was found to have phase velocity in the direction of E x B drift and finite phase delay in the radial direction.