

Coherent Beam Combination of Multiple phase modulated optical signals for a coherent Doppler LIDAR. Eisuke Haraguchi, Toshiyuki Ando, Jiro Suzuki and Yoshihito Hirano, Mitsubishi Electric Corporation (Japan).

ABSTRACT

This paper presents Coherent Beam Combination of two phase modulated optical signals using frequency shifter to phase control for a coherent Doppler LIDAR. When phase locking was obtained, we ensured combining efficiency and phase error is 95[%] and 0.2[deg.] (1/1800), respectively. This measurement result is good agreement with designed combining efficiency 99[%] and phase error 0.3[deg.].