

Mobile Coherent Doppler LIDAR system for wind sensing.
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ABSTRACT

We have developed ultra compact all-fiber Coherent Doppler LIDAR (CDL) system for wind sensing, called Man Pack LIDAR. The dimension of the man pack LIDAR is 40x30x16.5cm, its weight is reduced to 13.9kg and its power consumption is only 50W. Thanks to low power consumption optical transmitter/ receiver unit, this new LIDAR system can be operated by two Lithium polymer batteries, and continue to measure over two hours without exchanging batteries. This man pack LIDAR has also successfully marked the maximum range for wind velocities more than 1km as long as our conventional all-fiber CDL product (LR-FC series).