

Effect of Bends on the Quality of the Output Signal Generated by CW Laser on Single Mode Optical Fiber

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Abstract

The effect of bends on the quality of the output signal generated by CW laser on single mode optical fiber was investigated. A single mode optical fiber cable was subjected to macrobends in the order of 5mm, 10mm, 20mm, 30mm, 40mm and 50mm bend radius. An optical signal from a CW laser emitting beams in the range of 800nm-880nm was transmitted through the cable. Transmission percentage and variation in peaks were noted and graphs plotted corresponding to each bend radius. Transmission percentage was found to be in proportional to the size of the bend radius.

Key words: Bend radius, CW laser, and single mode optical fiber.