ABSTRACT

Right-angled triangular spectrum (RTS) has been modeled on chirped fiber Bragg grating (CFBG). Parameters such as spectral peak position (λ_{max}), length of FBG (L), chirped coefficient (Cp), each segment length (Ls), and the effective refractive index (neff) are observed to affect the output spectrum.The simulation defined a positive real number z_1 which determine the position of λ_{max} . In case of L = 2 cm, the right-angled triangular (RTS) output occurs when λ_{max} is set at z_1 = L/5. The variation of L and Cp influence the shape and spectral width; larger value of L and Cp caused wider spectral width. The change of this spectral width causes the change of pulse shape. Variation of Ls changes the pulse shape. However, the positions of λ_{max} and spectral width do not change. RTS is formed for Ls = 1 mm . Furthermore, the spectrum noise is found to be low. The variation of neff shifts the λ_{max} to the larger value.

***Keywords**: Fiber Bragg Grating, Chirped Fiber Bragg Grating, right-angled triangular spectrum.*