

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 (C_p), each segment length (L_s), and the effective refractive index (n_{eff}) 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 C_p influence the shape and spectral width; larger value of L and C_p caused wider spectral width. The change of this spectral width causes the change of pulse shape. Variation of L_s changes the pulse shape. However, the positions of λ_{max} and spectral width do not change. RTS is formed for $L_s = 1$ mm. Furthermore, the spectrum noise is found to be low. The variation of n_{eff} shifts the λ_{max} to the larger value.

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