

ABSTRACT

In this research, an attempt was made to implement filters to reduce EMI interference on LED load to comply with IEC 61000-3-2 class C and Insertion Loss analysis. The filter used is passive harmonics type: Parallel Filter, Series Filter and Low Pass Filter. The measurement results on the LED shown a high number of total harmonic distortion 131.4%. Harmonics has been successfully reduced and meets IEC 61000-3-2 class C standards with the use of Low Pass Filter. Total harmonics fell to 24.6%, power quality increased, but real power also increased. The LPF shows Insertion Loss with a value at normal frequency (50 Hz) 25 dB and harmonic (150) 34.5 dB.

Keywords: *harmonic, LED, EMI, EMC, Insertion Loss, filter*