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(54) Title: OPTICAL RANGE FINDING

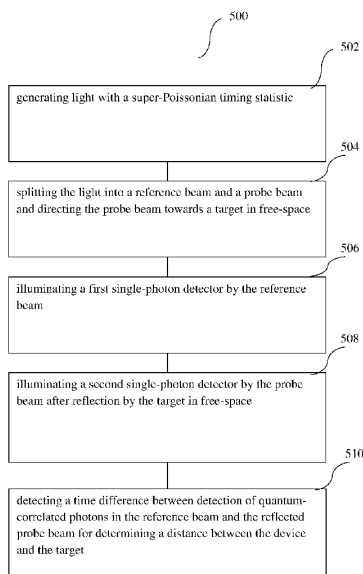


Figure 5

(57) Abstract: An optical range finding device and an optical range finding method. The method comprises the steps of generating light with a super Poissonian timing statistic; splitting the light into a reference beam and a probe beam and directing the probe beam towards a target in free-space; illuminating a first single-photon detector by the reference beam; illuminating a second single-photon detector by the probe beam after reflection by the target in free-space; detecting a time difference between detection of quantum-correlated photons in the reference beam and the reflected probe beam for determining a distance between the device and the target.

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