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(54) Title: LIDAR SYSTEM WITH IMPROVED SCANNING SPEED FOR HIGH-RESOLUTION DEPTH MAPPING

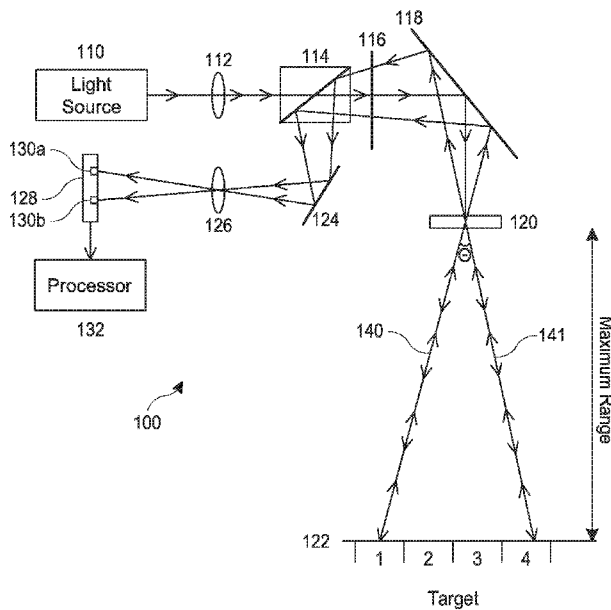


FIG. 1

(57) Abstract: A lidar system may have a light source configured to emit a pulse of light and a scanner that scans a field of view of the light source in a forward-scanning direction across a plurality of pixels located downrange from the lidar system. The scanner can direct the pulse of light toward the second pixel and scan a field of view of a first detector. The first-detector field of view can be offset from the light-source field of view in a direction opposite the forward-scanning direction. When the pulse is emitted, the first-detector field of view can at least partially overlap the first pixel and the light-source field of view can at least partially overlap the second pixel. The first detector can be configured to detect a portion of the pulse of light scattered by a target located at least partially within the second pixel.



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