

Title (en)

VCSEL-BASED VARIABLE IMAGE OPTICAL LINE GENERATOR

Title (de)

VCSEL-BASIERTER GENERATOR VON VARIABLEN OPTISCHEN BILDZEILEN

Title (fr)

GÉNÉRATEUR DE LIGNE OPTIQUE À IMAGE VARIABLE À BASE VCSEL

Publication

**EP 3078499 B1 20180926 (EN)**

Application

**EP 16161793 A 20160322**

Priority

US 201514681957 A 20150408

Abstract (en)

[origin: EP3078499A2] A single-pass imaging system utilizes a two-dimensional (2D) light field generator (e.g., one or more VCSEL devices) to generate a modulated two-dimensional modulated light field in accordance with image data for a single row of pixels, and an anamorphic optical system that concentrates the two-dimensional modulated light field in a process direction such that a one-dimensional scan line image extending in a cross-process direction is generated on an imaging surface. The VCSEL array is configured using a scan line image data group made up of pixel image data portions, with associated groups of light emitting elements aligned in the process direction being configured by each pixel image data portion. Gray scaling is achieved either by turning on some of the light emitting elements of the associated group, or by turning the light emitting elements of the associated group partially on, e.g. using a common drive current.

IPC 8 full level

**B41J 2/45** (2006.01)

CPC (source: EP)

**B41J 2/45** (2013.01)

Cited by

EP4140752A1; CN114355384A; CN111386565A; EP3951424A4; CN112041751A; KR20200137031A; EP3785080A4; US11340535B1; WO2019209396A1; US11827037B2

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DOCDB simple family (publication)

**EP 3078499 A2 20161012; EP 3078499 A3 20170726; EP 3078499 B1 20180926;** JP 2016200808 A 20161201; JP 6546868 B2 20190717

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