

**Information on Search Strategy - Pilot phase (see OJ 2015, A86)**

The type of information contained in this sheet may change during the pilot for improving the usefulness of this new service.

Application Number

PCT/US2019/056029

TITLE: FRACTIONAL FREQUENCY SYNTHESIS BY SIGMA-DELTA MODULATING FREQUENCY OF A REFERENCE CLOCK

APPLICANT: CIENA CORPORATION

IPC CLASSIFICATION: H03L7/18, H03L7/22

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CONSULTED DATABASES: EPODOC, WPI, TXT+, NPL

CLASSIFICATION SYMBOLS DEFINING EXTENT OF THE SEARCH:

IPC:

CPC: H03L7/16, H03L7/18, H03L7/22/LOW, H03L7/22

FI/F-TERMS:

KEYWORDS OR OTHER ELEMENTS FEATURING THE INVENTION:

Fractional-N frequency generator using a fractional-N frequency divider, driven by a sigma-delta modulator, in the reference path of an integer-N PLL. The output signal of the divider is multiplied by the integer-N PLL to provide an output signal having a relationship  $F_{out}=(M/I+F)*F_{in}$ , wherein I and F are the integer and fractional parts of the divisor value respectively, and M is the multiplication factor of the integer-N PLL.