

Title (en)

WIDEBAND LOW PHASE NOISE DIGITALLY CONTROLLED OSCILLATOR USING SWITCHED INDUCTORS

Title (de)

DIGITAL GESTEUERTER BREITBANDOSZILLATOR MIT NIEDRIGEM PHASENRAUSCHEN UNTER VERWENDUNG VON GESCHALTETEN INDUKTOREN

Title (fr)

OSCILLATEUR À COMMANDE NUMÉRIQUE À FAIBLE BRUIT À LARGE BANDE UTILISANT DES INDUCTANCES COMMUTÉES

Publication

EP 4211803 A4 20240313 (EN)

Application

EP 21725671 A 20210122

Priority

- US 202063084473 P 20200928
- US 2021014629 W 20210122

Abstract (en)

[origin: WO2021097493A1] A digitally-controlled oscillator (DCO) is provided. In one aspect, the DCO includes a resonant tank that can include multiple inductors and multiple metal-oxide-semiconductor (MOS) transistors. The resonant tank can include a first circuit connected between a first pair of inductors, a second circuit connected between a second pair of inductors, a third circuit connected between a third pair of inductors, and a fourth circuit connected between a fourth pair. Each of the third and fourth circuits can include a capacitor and a switching element. Each of the first and second pair of circuits include an inductor arranged in parallel with a respective switching element. Each of the third and fourth pair of inductors can include an inductor in common with the first pair of inductors and another inductor in common with the second pair of inductors. The fourth pair of inductors can be different from the third pair of inductors.

IPC 8 full level

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CPC (source: EP)

H03B 5/1212 (2013.01); **H03B 5/1228** (2013.01); **H03B 5/1265** (2013.01); **H03B 5/1268** (2013.01); **H03L 7/099** (2013.01)

Citation (search report)

- [A] US 8305151 B2 20121106 - TANABE AKIRA [JP]
- [A] US 2013296217 A1 20131107 - AFSHARI EHSAN [US], et al
- See also references of WO 2021097493A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

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