

Title (en)

METHOD AND DEVICE FOR PHASE DETECTION OF A SIGNAL VIA A HYBRID COUPLER, USING A REFERENCE PHASE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR PHASENDETEKTION EINES SIGNALS ÜBER EINEN HYBRIDKOPPLER UNTER VERWENDUNG EINER REFERENZPHASE

Title (fr)

PROCÉDÉ ET DISPOSITIF DE DÉTECTION DE PHASE D'UN SIGNAL VIA UN COUPLEUR HYBRIDE, UTILISANT UNE PHASE DE RÉFÉRENCE

Publication

EP 3914917 A1 20211201 (FR)

Application

EP 19740043 A 20190122

Priority

FR 2019050137 W 20190122

Abstract (en)

[origin: WO2020152400A1] Disclosed is a method for detecting the phase ($\Phi 1$) of an analogue signal (SA1) via a hybrid coupler (CH1) operating in a power combiner mode, the hybrid coupler (CH1) comprising a first input (BE1) intended to receive the analogue signal (SA1), a second input (BE2) intended to receive a reference signal (SREF) having a reference phase ($\Phi 2$) and a same frequency (FREF) as the analogue signal (SA1), and two outputs (BS1, BS2), and configured to respectively generate, at these two outputs (BS1, BS2), a first output signal (SS1) and a second output signal (SS2), comprising a measurement of the peak values (A1, A2, A3, A4) of the analogue signal (SA1), of the reference signal (SREF) and of at least one of the first and second output signals (SS1, SS2), a calculation of the phase-shift ($\Phi 1 - \Phi 2$) between the phase ($\Phi 1$) of the analogue signal and the reference phase ($\Phi 2$) as a function of the measured peak values (A1, A2, A3, A4), and determination of the phase ($\Phi 1$) of the analogue signal (SA1) as a function of this calculated phase shift ($\Phi 1 - \Phi 2$) and of the reference phase ($\Phi 2$).

IPC 8 full level

G01R 25/02 (2006.01); **G01R 25/04** (2006.01)

CPC (source: EP US)

G01R 25/02 (2013.01 - EP); **G01R 25/04** (2013.01 - US); **H04B 17/21** (2015.01 - US); **G01R 25/04** (2013.01 - EP)

Citation (search report)

See references of WO 2020152400A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020152400 A1 20200730; CN 113348371 A 20210903; EP 3914917 A1 20211201; US 2022099718 A1 20220331

DOCDB simple family (application)

FR 2019050137 W 20190122; CN 201980089856 A 20190122; EP 19740043 A 20190122; US 201917421801 A 20190122