Title (en)
   COHERENT RADAR

Title (de)
   KOHÄRENTES RADAR

Title (fr)
   RADAR COHÉRENT

Publication
   EP 2997394 A1 20160323 (EN)

Application
   EP 14741366 A 20140515

Priority
   • IT RM20130290 A 20130515
   • IB 2014061454 W 20140515

Abstract (en)
   [origin: WO2014184760A1] Pulse compression coherent radar provided with a digital generator (1) of pseudo- random waveforms in the form of
   sequences of first numerical pairs in-phase and quadrature (I, Q); a mass memory (2) adapted to record on it at least a selection of said sequences
   of first numerical pairs (I, Q) that represent, and permit to generate, analog signals falling in the range of working frequencies of the radar and
   suitable for transmission by the radar itself; a coherent transceiver comprising a coherent modulator (3), adapted to receive said at least one
   selection of the sequences of the first numerical pairs (I, Q), read from the mass memory (2), and to generate a respective analog signals; a power
   amplifier (4) to amplify said analog signals; at least one antenna (6) to transmit said analog signals and receive analog signals reflected from one
   or more radar target; a coherent demodulator (7) adapted to receive said analog signals reflected and to generate digital signals, representative of
   said analog signals reflected, in the form of sequences of second numerical pairs (I', Q'); a frequency synthesizer (8) adapted to generate reference
   frequencies (fc, fs) used by the coherent modulator (3) and by the coherent demodulator (7); a receiver (9) of the digital correlation type to calculate
   the mutual correlation function between said selection of sequences of the first numerical pairs (I, Q) and said sequences of second numerical pairs
   (I', Q'), suitable to detect the radar targets and determine their distance.

IPC 8 full level
   G01S 7/282 (2006.01); **G01S 7/288** (2006.01)

CPC (source: EP US)
   G01S 7/282 (2013.01 - EP US); **G01S 7/288** (2013.01 - EP); **G01S 7/2886** (2021.05 - EP); G01S 13/91 (2013.01 - EP US);
   G01S 13/93 (2013.01 - EP)

Citation (search report)
   See references of WO 2014184760A1

Designated contracting state (EPC)
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Designated extension state (EPC)
   BA ME

DOCDB simple family (publication)
   WO 2014184760 A1 20141120; AU 2014266849 A1 20160107; EP 2997394 A1 20160323; IT RM20130290 A1 20141116

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