

Title (en)
MODULATION SCHEME FOR HIGH SPEED MUD PULSE TELEMETRY WITH REDUCED POWER REQUIREMENTS

Title (de)
MODULATIONSSCHEMA ZUR HOCHSCHNELLEN DRUCKPULSTELEMETRIE MIT VERRINGERTEN LEISTUNGSANFORDERUNGEN

Title (fr)
SCHÉMA DE MODULATION POUR TÉLÉMESURE PAR IMPULSIONS DANS LA BOUE À HAUTE VITESSE, À BESOINS EN ALIMENTATION ÉLECTRIQUE RÉDUITS

Publication
EP 3259445 A1 20171227 (EN)

Application
EP 16753058 A 20160218

Priority
• US 201514625813 A 20150219
• US 2016018464 W 20160218

Abstract (en)
[origin: WO2016134143A1] A method for transmitting data from a downhole location to a location at the surface of the earth includes: receiving data using a modulator disposed at the downhole location on a drill tubular in a borehole penetrating the earth and modulating the data using offset quadrature phase shift keying (OQPSK) and smooth transitions between phase shifts to produce a series of two-bit symbols having smooth transitions in transition intervals between phase shifts of both in-phase and quadrature-phase components of the OQPSK modulated data. The method further includes transmitting the series of two-bit symbols as an acoustic signal in drilling fluid disposed in the borehole using a mud-pulser, receiving the acoustic signal using a receiver disposed uphole from the downhole location; and demodulating the acoustic signal using a demodulator coupled to the receiver to provide demodulated data.

IPC 8 full level
E21B 47/12 (2012.01); **E21B 47/18** (2012.01); **E21B 47/20** (2012.01)

CPC (source: EP US)
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Citation (search report)
See references of WO 2016134143A1

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