

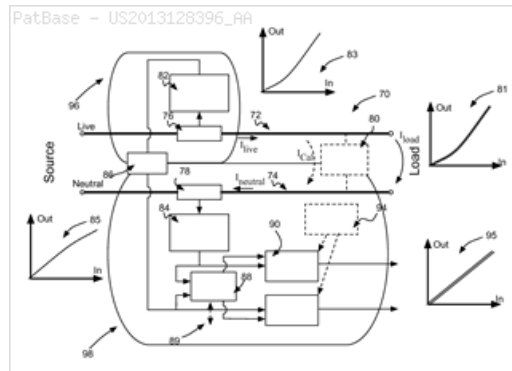
1) Family number: 50555000 (US2013128396A)

Title: **CURRENT** MEASUREMENT

Abstract: The present invention relates to **current** measurement apparatus. The **current** measurement apparatus comprises first and second measurement devices with each of the first and second measurement devices being operative to measure **current** in a respective one of a live conductor and a neutral conductor substantially simultaneously. The **current** measurement apparatus is operative to make plural different determinations in dependence on the substantially simultaneous **current** measurements.

Classifications:

International (IPC 8-9): G01R19/00 G01R19/25 G01R23/02
G01R31/02 G01R35/00 H02H1/00 H02H3/00
H02H3/32 (Advanced/Invention);
G01R19/165 G01R21/06 G01R35/00 (Advanced/Non-invention)
CPC: G01R19/16547 G01R21/06 G01R35/005 H02H1/0015
H02H3/006 H02H3/32 G01R19/00 G01R19/2506 G01R23/02
G01R31/52 G01R31/50
US: 1/1 324/130 324/140R 324/509 324/76.39 361/45



Family:

Publication number	Publication date	Application number	Application date
GB201120295 A0	20120104	GB20110020295	20111124
US2013128396 AA	20130523	US20120684213	20121122
US2016341769 AA	20161124	US20160229815	20160805
US2018252750 AA	20180906	US20180910896	20180302
US9411003 BB	20160809	US20120684213	20121122
US9933463 BB	20180403	US20160229815	20160805

Priority:

US20110563462P	20111123	GB20110020295	20111124	US20120684213	20121122
US20160229815	20160805	US20180910896	20180302		

Probable Assignee: ANALOG DEVICES GLOBAL

Assignee(s): (std): ANALOG DEVICES GLOBAL ; METROIC LTD

Assignee(s): ANALOG DEVICES GLOBAL UNLIMITED CO ; ANALOG DEVICES LTD ; ANALOGDEVICESGLOBAL ; METROIC LIMITED

Inventor(s): (std): HURWITZ JONATHAN EPHRAIM DAVID ; DANESH SEYED AMIR ALI

Agent(s): SCHWEGMAN LUNDBERG AND WOESSNER PA

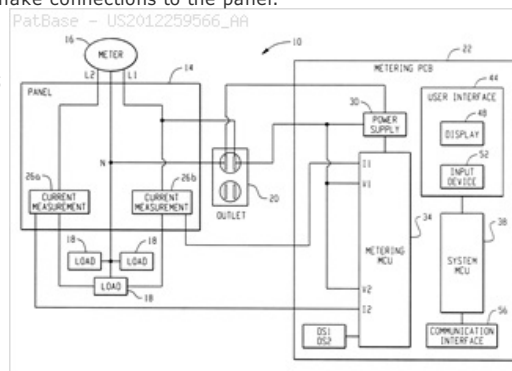
2) Family number: 52118001 (US2012259566A)

Title: DEVICE FOR MEASURING TWO **PHASE** POWER WITH SINGLE VOLTAGE INPUT

Abstract: A device and method for more accurately measuring power consumption in a residential application without having to make connections to high voltage sources in a distribution panel. Since the device calculating the power consumption generally needs to be powered to perform its functions (e.g., plugged into wall outlet), the disclosure utilizes the power supply as a voltage source for measuring voltage without having to make connections to the panel.

Classifications:

International (IPC 8-9): G01R21/06 G01R21/133
G06F19/00 (Advanced/Invention)
CPC: G01R21/133 Y02B70/346 Y02B90/242 Y04S20/322 Y04S20/525
G01D4/004 G01R21/06 G01R21/1331
European: G01R21/06 G01R21/133B
US: 1/1 702/61 702/62



Family:

Publication number	Publication date	Application number	Application date
US2012259566 AA	20121011	US20110081844	20110407

US2012278016 AA	20121101	US20120547243	20120712
US9128131 BB	20150908	US20110081844	20110407

Priority:

US20110081844 20110407 US20120547243 20120712

Probable Assignee: HAIER US APPLIANCE SOLUTIONS INC

Assignee(s): (std): FINCH MICHAEL FRANCIS ; GEN ELECTRIC ; HUFF JOSHUA BLAKE

Assignee(s): GENERAL ELECTRIC CO ; GENERAL ELECTRIC COMPANY ; HAIER US APPLIANCE SOLUTIONS INC

Inventor(s): (std): HUFF JOSHUA BLAKE ; FINCH MICHAEL FRANCIS

Agent(s): DORITY AND MANNING PA

3) Family number: 73175003 (US2020081130A)

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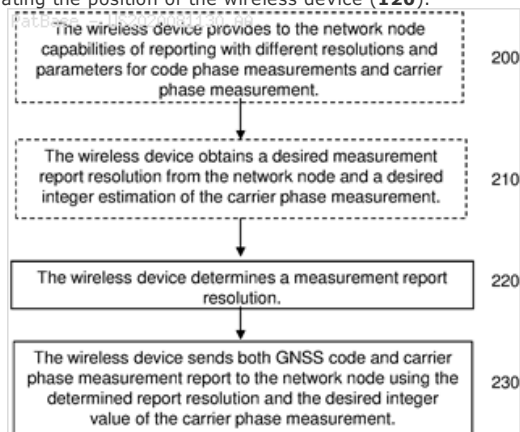
Title: METHOD AND APPARATUS IN A GLOBAL NAVIGATION SYSTEM

Abstract: Embodiments relate to a location server, a wireless device and methods performed therein for positioning the wireless device. The wireless device (**120**) is arranged to perform measurements associated to estimating the position of the wireless device (**120**), wherein the wireless device (**120**) is configured to: perform a code **phase** measurement on a satellite signal between a satellite and the wireless device (**120**), wherein the code **phase** measurement indicates a number of cycles of a code **phase** of the satellite signal, the number comprising a first integer part and a first fractional part; perform a carrier **phase** measurement on the first fractional part; and send to a location server (**130**) a report of the code **phase** measurement and the carrier **phase** measurement, for estimating the position of the wireless device (**120**).

Classifications:

International (IPC 8-9): G01R19/02 G01S19/09 G01S19/25
G01S19/44 G01S5/00 G01S5/10 H04W64/00 (Advanced/Invention);
G01S19/43 (Advanced/Non-invention)

CPC: G01S5/0036 G01S19/09 G01S19/43 H04W64/00 G01S19/254
G01R19/02 G01S19/44 H04W64/003 G01S5/10



Family:

Publication number	Publication date	Application number	Application date
CA3071876 AA	20200203	CA20183071876	20180810
US2020081130 AA	20200312	US20180079145	20180627
WO19032004 A1	20190214	WO2018SE50695	20180627
WO19032036 A1	20190214	WO2018SE50813	20180810

Priority:

US20170544237P 20170811 US20170564413P 20170928 WO2018SE50695 20180627
US20180079145 20180627 WO2018SE50813 20180810

Probable Assignee: ERICSSON AB

Assignee(s): (std): ERICSSON AB ; ERICSSON TELEFON AB L M ; TELEFONAKTIEBOLAGET LM ERICSSON PUBL

Assignee(s): ZHANG XIN ; SHREEVASTAV RITESH ; GUNNARSSON FREDRIK ; MODARRES RAZAVI SARA ; RYDEN HENRIK

Inventor(s): (std): MODARRES RAZAVI SARA ; GUNNARSSON FREDRIK ; RYDEN HENRIK ; ZHANG XIN ; SHREEVASTAV RITESH

Agent(s): ERICSSON CANADA PATENT GROUP; AYOUB NABIL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

4) Family number: 51990006 (US2013154643A)

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Title: TECHNIQUES, SYSTEMS AND MACHINE READABLE PROGRAMS FOR MAGNETIC RESONANCE

Abstract: The present disclosure provides various methods and systems for performing magnetic resonance studies. In accordance with many embodiments, image or other information of interest is derived from super radiant pulses.

Classifications:

International (IPC 8-9): A61B5/00 A61B5/026 A61B5/05 A61B5/055

A61M5/00 G01N G01N24/08 G01R33/32 G01R33/36 G01R33/385

G01R33/44 G01R33/46 G01R33/465 G01R33/48 G01R33/483

G01R33/54 G01R33/56 G01R33/561

G01R33/563 (Advanced/Invention);

G01R33/28 G01R33/36 G01R33/46 G01R33/485 G01R33/50

G01R33/56 G01R33/561 G01R33/563 (Advanced/Non-invention);

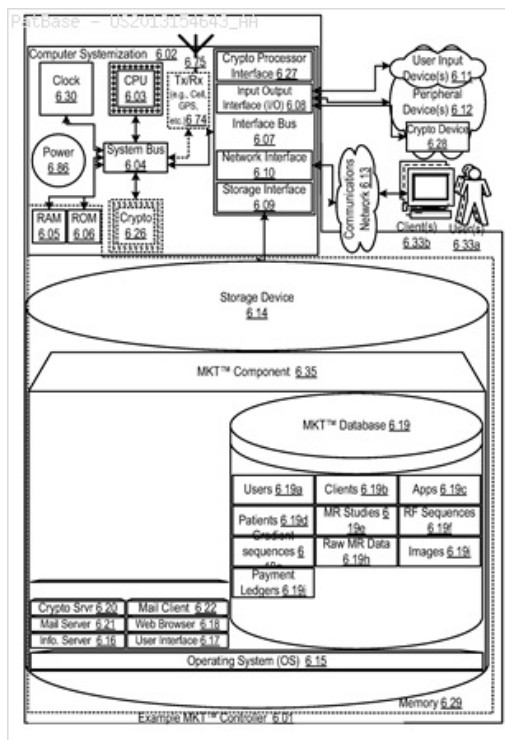
G01N (Subclass/Invention)

CPC: G01R33/543 G01R33/282 G01R33/32 A61M5/007

A61M2205/057 G01R33/4833 G01R33/50 A61B5/055 G01R33/4608

G01R33/485 G01R33/56308 G01R33/56366 G01R33/3607

G01R33/465 A61B5/0263 A61B5/748 A61B2576/00 G01R33/31
G01R33/46 G01R33/48 G01N24/08 G01R33/3621 G01R33/4616
G01R33/4828 G01R33/36 G01R33/483 G01R33/56 G01R33/5601
G01R33/561 G01R33/385 G01R33/5607
European: G01N24/08 G01R33/32 S01R33/28B S01R33/56C
US: 1/1 324/309 600/410 600/419 600/420



Family:

Publication number	Publication date	Application number	Application date
AU2012230778 AA	20120927	AU20120230778	20120323
AU2013286922 AA	20140109	AU20130286922	20130702
AU2015215941 AA	20150910	AU20150215941	20150821
BR112014032825 A2	20170627	BR20141132825	20130702
CA2878010 AA	20141224	CA20132878010	20130702
CA2906729 AA	20150914	CA20142906729	20140314
CN104487830 A	20150401	CN201380039716	20130702
CN104487830 B	20180821	CN201380039716	20130702
CN105190296 A	20151223	CN201480026281	20140314
CN107843861 A	20180327	CN201711177859	20140314
EP2689239 A1	20140129	EP20120761093	20120323
EP2689239 A4	20141224	EP20120761093	20120323
EP2867657 A1	20150506	EP20130813129	20130702
EP2867657 A4	20160511	EP20130813129	20130702
EP2972257 A1	20160120	EP20140763926	20140314
EP2972257 A4	20170118	EP20140763926	20140314
ID201605397 A	20160930	ID2015P0000262	20130702
IL228612 A0	20131231	IL20120228612	20120323
IL236503 A0	20150226	IL20130236503	20130702
IL241611 A0	20151231	IL20140241611	20140314
IN00668DN2015 A	20150626	IN2015DN00668	20150127
IN01795MN2013 A	20140926	IN2013MN01795	20130923
JP2015528719 T2	20151001	JP20150520639T	20130702
JP2016517328 T2	20160616	JP20160502763T	20140314
JP6314208 B2	20180418	JP20160502763T	20140314
KR101887736 B1	20180911	KR20157002351	20130702
KR20150037917 A	20150408	KR20157002351	20130702
KR20150129857 A	20151120	KR20157029592	20140314
MX2013010754 A1	20140326	MX20130010754	20120323
MX2015000038 A1	20150924	MX20150000038	20130702
MX343445 B	20161107	MX20150000038	20130702
NZ615681 A	20150424	NZ20120615681	20120323
SG11201507625T A1	20151029	SG201511107625	20140314
US2013154643 AA	20130620	US20130763967	20130211
US2013253308 AA	20130926	US20120623759	20120920
US2013265048 AA	20131010	US20130844446	20130315
US2014218029 AA	20140807	US20140190945	20140226
US2014247047 AA	20140904	US20140188410	20140224
US2014285191 AA	20140925	US20140210389	20140313
US2015035532 AA	20150205	US20140519848	20141021
US2015293194 AA	20151015	US20150686572	20150414
US2017082711 AA	20170323	US20160230739	20160808
US2017269180 AA	20170921	US20170612456	20170602
US2017322272 AA	20171109	US20170657890	20170724
US2018168480 AA	20180621	US20170837780	20171211
US9014785 BB	20150421	US20140188410	20140224
US9176208 BB	20151103	US20140519848	20141021
US9207298 BB	20151208	US20130844446	20130315
US9714995 BB	20170725	US20140210389	20140313

WO12129512 A1	20120927	WO2012US30384	20120323
WO14008226 A1	20140109	WO2013US49014	20130702
WO14144083 A1	20140918	WO2014US28343	20140314
WO14144083 A9	20150423	WO2014US28343	20140314
ZA201500653 A	20160127	ZA20150000653	20150128

Priority:

US20060775196P	20060221	US20060802699P	20060523	WO2007US04654	20070221
US20080042398P	20080404	US20080193536	20080818	US20080111050P	20081104
WO2009US39696	20090406	US20090238647P	20090831	WO2010US47310	20100831
US20100879634	20100910	US20110466500P	20110323	US20110522076P	20110810
US20110335076	20111222	AU20120230778	20120323	WO2012US30384	20120323
US20120667283P	20120702	US20120623759	20120920	US20120706100P	20120926
US20120706102P	20120926	US20120706106P	20120926	US20120733415P	20121204
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WO2013US49014	20130702	US20130882430P	20130925	US20140188410	20140224
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US20150686572	20150414	AU20150215941	20150821	WO2015US63169	20151201
US20160230739	20160808	US20170612456	20170602	US20170657890	20170724
US20170837780	20171211				

Probable Assignee: MILLIKELVIN TECHNOLOGIES LLC

Assignee(s): (std): HROVAT MIRK ; HROVAT MIRKO ; KALECHOFKY NEAL ; MILIKELVIN TECH LLC ; MILLIKELVIN TECHNOLOGIES LLC ; MILLIKELVIN TECHNOLOGIES LLC ; MILLIKELVIN TECH LLC

Assignee(s): MILLIKELVIN TECHNOLOGIES LLC

Inventor(s): (std): KALECHOFKY NEAL ; NEAL KALECHOFKY ; KALECHOFKY NEIL ; BELZER AVRUM ; MIRKO HROVAT ; HROVAT MIRKO

Inventor(s): HROVAT MIRK ; KALECHOFKY ; NEAL ; HROVAT ; MIRKO

Agent(s): EAGAR BARRY MR; BARRY EAGAR; EAGAR AND MARTIN PTY LTD; EAGAR AND ASSOCIATES PTY LTD; BERESKIN AND PARR LLP SENCRL SRL; MASCHIO ANTONIO; ZACCO DENMARK A S; RATU SANTI ERMAWATI ST; TOKYO ARPA IP AND CO; BRIAN R; DAY PITNEY LLP; CRAWFORD MAUNU PLLC; POLLACK BRIAN R ET AL; POLLACK BRIAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 50783014 (US2012065617A)

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Title: SYSTEMS AND METHODS FOR INTRAVENOUS DRUG MANAGEMENT USING IMMITTANCE SPECTROSCOPY

Abstract: Described herein are devices, systems, and methods for determining the composition of liquids, including the identity of one or more drugs in the liquid, the concentration of the drug, and the type of diluent using immittance spectroscopy. These devices, systems and methods are particularly useful for describing the identity and, in some variations, concentration of one or more components of a medical liquid such as intravenous fluid. In particular, described herein are devices, systems and methods that may operate in low ionic strength diluents. Also described are methods of recognizing complex immittance spectrograph patterns to determine the composition of a liquid by pattern recognition.

Classifications:

International (IPC 8-9): A61M A61M5/00 A61M5/168 A61M5/172 G01N27/02 G01N27/04 G01N27/06 G01N27/08 G01N27/416

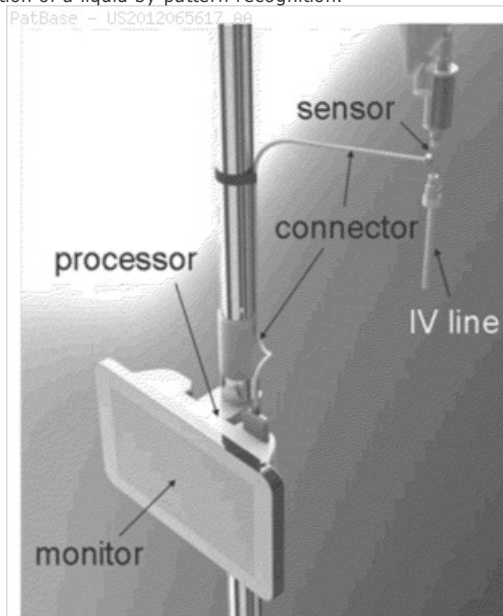
G01N31/00 G01R27/28 G06F19/00 G06Q50/00 (Advanced/Invention)

International (IPC 1-7): A61M5/172 G01N27/06 G01N27/08 G01N27/416

CPC: A61M5/142 A61M2205/0244 A61M2205/3306 A61M2205/3313 A61M2205/3553 A61M2205/3561 A61M2205/6018 G01N27/026 Y02A90/26 G01N27/4166

European: G01N27/02D

US: 324/425 324/649 324/649S 604/503 604/503P 604/66 604/66S 702/22 702/25 702/25S 73/61.61 73/61.610S



Family:

Publication number	Publication date	Application number	Application date
AU2011299019 AA	20120315	AU20110299019	20110909
AU2011299019 AA	20130328	AU20110299019	20110909
AU2011299019 AB	20130404	AU20110299019	20110909
BR112013005720 A2	20190924	BR20131105720	20110909
CA2809875 AA	20130227	CA20112809875	20110909
CN103501839 A	20140108	CN201180053735	20110909
EP2613826 A2	20130717	EP20110824215	20110909
EP2613826 A4	20171129	EP20110824215	20110909

IL224996 A0	20130430	IL20110224996	20110909
IN01783DN2013 A	20141024	IN2013DN01783	20130227
JP2013542414 T2	20131121	JP20130528354T	20110909
KR20140022755 A	20140225	KR20137009062	20110909
MX2013002664 A1	20130419	MX20130002664	20110909
RU2013115758 A	20141020	RU20130115758	20110909
SG187977 A1	20130430	SG20130014873	20110909
US2012065617 AA	20120315	US20110229597	20110909
US2014375324 AA	20141225	US20140457937	20140812
US8838395 BB	20140916	US20110229597	20110909
WO12034084 A2	20120315	WO2011US51098	20110909
WO12034084 A3	20120628	WO2011US51098	20110909

Priority:

US20100381076P 20100909 US20100394775P 20101020 US20100462325P 20101205
US20110429461P 20110104 US20110229597 20110909 WO2011US51098 20110909
US20140457937 20140812

Probable Assignee: BENNETT JAMES W

Assignee(s): (std): BENNETT JAMES W ; BLANKE KIT ; LITVINTSEVA SVETLANA ; SMITH MATTHEW F ; WEICKERT MICHAEL J ; MATSIEV LEONID F ; S E A MEDICAL SYSTEMS INC

Assignee(s): SEA MEDICAL SYSTEMS INC ; MATSIEV LEONID

Inventor(s): (std): KIT BLANKE ; SVETLANA LITVINTSEVA ; MATTHEW F SMITH ; JAMES W BENNETT ; MICHAEL J WEICKERT ; LEONID F MATSIEV ; MATSIEV LEONID F ; BENNETT JAMES W ; WEICKERT MICHAEL J ; BLANKE KIT ; SMITH MATTHEW F ; LITVINTSEVA SVETLANA

Agent(s): GRIFFITH HACK; FETHERSTONHAUGH AND CO; PRICE NIGEL JOHN KING; UESUGI HIROSHI; OHTSUKA FUMIAKI; SUDA HIROYUKI; KUMAKURA YOSHIO; NISHIJIMA TAKAKI; SHAY GLENN LLP; SHOOP RICHARD D ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

6) Family number: 55114014 (US2013293026A)

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Title: DETECTION DEVICE, POWER RECEPTION DEVICE, POWER TRANSMISSION DEVICE AND NON-CONTACT POWER SUPPLY SYSTEM

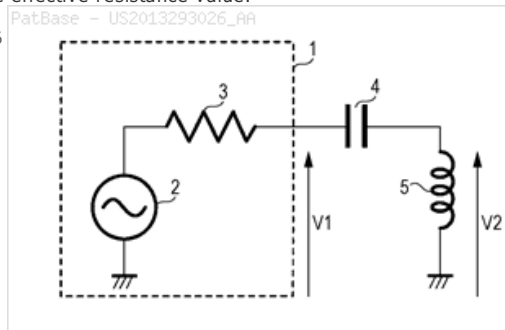
Abstract: A detection device, including: one or a plurality of magnetic coupling elements configured to have one or a plurality of coils; and a detection unit that measures or calculates an effective resistance values of the magnetic coupling elements or an effective resistance value of a circuit including at least the magnetic coupling elements and determines a presence or absence of a foreign substance based on a change in the effective resistance value.

Classifications:

International (IPC 8-9): B60L11/18 B60L53/12 B60L53/30 B60L53/36 G01N27/04 G01R27/26 G01R33/12 G01V3/08 G01V3/10 H01F38/14 H01H31/34 H02J17/00 H02J50/12 H02J50/60 H02J50/70 H02J50/80 H02J7/00 H02J7/02 H04B5/02 (Advanced/Invention); H02J5/00 H02J7/00 (Advanced/Non-invention)

CPC: B60L11/182 B60L11/1833 B60L2230/00 H02J50/80 H02J7/00034 G01V3/10 H02J50/12 H02J50/60 B60L53/12 B60L53/30 B60L53/36 B60L2270/147 G01R33/123 Y02T10/7005 Y02T10/7088 Y02T90/121 Y02T90/122 Y02T90/125 Y02T90/14 G01N27/045 G01V3/08 H02J50/70 H02J2310/48 H02J7/025 H02J5/005

US: 1/1 307/104 324/655 324/708



Family:

Publication number	Publication date	Application number	Application date
CN103389515 A	20131113	CN201310156684	20130428
CN103389515 B	20170908	CN201310156684	20130428
CN107482791 A	20171215	CN201710683251	20130428
JP2013236422 A2	20131121	JP20120105768	20120507
JP2016201994 A2	20161201	JP20160142301	20160720
JP2018046746 A2	20180322	JP20170244128	20171220
JP2019097383 A2	20190620	JP20190002000	20190109
JP5976385 B2	20160823	JP20120105768	20120507
JP6466557 B2	20190206	JP20170244128	20171220
US2013293026 AA	20131107	US20130867235	20130422
US2016195485 AA	20160707	US20160072020	20160316
US2018003659 AA	20180104	US20170702059	20170912
US2019252927 AA	20190815	US20190390421	20190422
US9518948 BB	20161213	US20130867235	20130422
US10256673 BB	20190409	US20160072020	20160316
US10326318 BB	20190618	US20170702059	20170912

Priority:

JP20120105768 20120507 JP20160142301 20120507 JP20170244128 20120507
US20130867235 20130422 CN201310156684 20130428 US20160072020 20160316
JP20160142301 20160720 US20170702059 20170912 JP20170244128 20171220
JP20190002000 20190109 US20190390421 20190422

Probable Assignee: SONY CORP

Assignee(s): (std): SONY CORP
Inventor(s): (std): MIYAMOTO SO ; NAKANO HIROAKI ; MIYAMOTO TAKASHI ; MURAKAMI TOMOMICHI
Agent(s): CHIP LAW GROUP; MICHAEL BEST AND FRIEDRICH LLP

7) Family number: 63667015 (US2016285310A)

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Title: SMART ELECTRICAL POWER **METER** WITH AUTO-SWITCHING CONTROL FOR OPTIMIZING ENERGY SAVINGS

Abstract: The present invention is a power **meter** with auto switching control. It comprises a power measurement unit where the power and energy data can be display either locally as well as remotely through wireless communications, an electrical receptacle, plug or strip connecting power to electrically powered equipment or devices; a switch with open and close states to control power off and on; a combination of buttons for manual controls and settings; embedded or externally connected **sensors** to provide signal input, for example but not limited to, occupancy **sensors** and infrared **sensors**; a **processing** unit to automatically control the power on/off according to the measured power, **sensor** signals, user input, schedules and control strategies; and storage units to hold these control strategies and algorithms and save data.

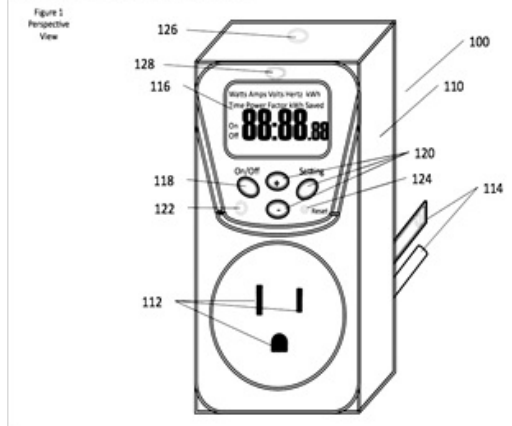
Classifications:

International (IPC 8-9): G01R22/06 G01R22/10 G01V8/10
H02J13/00 (Advanced/Invention)

CPC: G01R22/068 G01R22/10 Y04S10/40 H02J13/00001
H02J13/0079

US: 1/1 307/116

PatBase - US2016285310_RR



Family:

Publication number	Publication date	Application number	Application date
US2016285310 AA	20160929	US20160077653	20160322

Priority:

US20150136855P 20150323 US20160077653 20160322

Probable Assignee: BRITE THINGS INC

Assignee(s): (std): BRITE THINGS INC ; HU XIN ; TAN LIANGCAI ; WILSON MICHAEL

Inventor(s): (std): HU XIN ; TAN LIANGCAI ; WILSON MICHAEL

8) Family number: 3356022 (US4874942A)

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Title: ROTATION, ACCELERATION, AND GRAVITY **SENSORS** USING QUANTUM-MECHANICAL MATTER-WAVE INTERFEROMETRY WITH NEUTRAL ATOMS AND MOLECULES

Abstract: The invention is a neutral atom (and/or molecule) matter-wave interferometer (and/or set of interferometers) that can be used as an inertial **sensor** with a sensitivity exceeding that of conventional mechanical **sensors** and multiple circuit optical interferometers (including ring lasers) by many powers of ten. An interferometer in which matter-wave propagation beam paths enclose a finite area will sense rotations via the Sagnac effect. One with the paths displaced from each other will sense acceleration plus gravity. The matter-wave energy and mass dependence of the **phase** shifts that are due to rotation and acceleration are different. Thus a pair of interferometers with different energies and/or masses can perform simultaneous independent measurements of rotation and acceleration. Interferometers with paths that follow a figure-eight pattern yield a gravitational gradiometer. Laser cooling and slowing of a beam of neutral atoms provides a low energy nearly monochromatic source. One form of the invention comprises a sequence of slits and/or diffraction gratings operation in high order. Gratings consist of slits in a solid material or near-resonant standing-wave laser beams. Path curvature due to acceleration and rotation is canceled by magnetic and/or **electric** field gradients that produce an effective levitation of slow atoms. A feedback system that maintains an interferometer **phase** null is employed with its error signal yielding the inertial effect signals. Magnetic fields are used for producing matter-wave **phase** shifts. One form of detector images the Moire pattern formed in the light emitted from the resonance fluorescence of a standing matter-wave fringe pattern and a standing-wave laser beam.

Classifications:

International (IPC 8-9): G01B15/00 G01C19/00 G01C19/58
G01C19/60 G01C19/64 G01P15/00 G01P15/08 G01P15/093
G01P15/14 G01P3/44 G01V7/00 G21K1/06 H05H3/00

H05H3/02 (Advanced/Invention);

G01C19/58 G01P15/14 (Advanced/Non-invention);

G01C19/58 G01P15/08 G01V7/00 H05H3/00 (Core/Invention)

International (IPC 1-7): G01B15/00 G01C19/00 G01C19/58

G01C19/60 G01C19/64 G01P15/00 G01P15/14 G01R19/00

G01R19/165 G01V7/00 G01V7/04 H05H3/00

CPC: G01P3/44 G21K1/06 G21K2201/062 G21K2201/068 H05H3/00

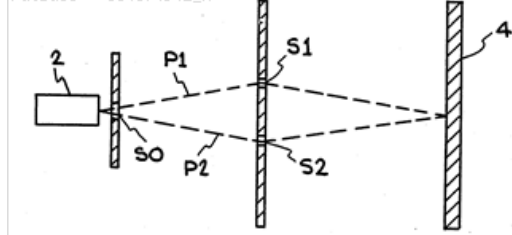
G01C19/58 G01P15/08 G01P15/093 G01V7/00 H05H3/02

European: G01C19/58 G01P15/08 G01P15/08D G01P15/093

G01P3/44 G01V7/00 G21K1/06 H05H3/00 H05H3/02 S21K201/06C S21K201/06N

US: 250/251 250/256 250/269 324/117R 73/382G 73/504.01 73/514 73/514.27 73/517A

PatBase - US4874942_A



Family:

Publication number	Publication date	Application number	Application date
AU199067126 A1	19910311	AU19900067126	19900305

AU637654 B2	19930603	AU19900067126	19900305
CA2033341 AA	19910130	CA19902033341	19900305
CA2033341 C	19960130	CA19902033341	19900305
EP0486624 A1	19920527	EP19900916629	19900305
EP0486624 A4	19921209	EP19900916629	19900305
JP5501453 T2	19930318	JP19900515480T	19900305
US4874942 A	19891017	US19870113620	19871026
US4992656 A	19910212	US19890393285	19890810
WO9102444 A1	19910221	WO1990US01198	19900305

Priority:

US19870113620 19871026 US19890393285 19890810 WO1990US01198 19900305

Probable Assignee: CLAUSER JOHN F

Assignee(s): (std): CLAUSER JOHN F ; CLAUSER JOHN FRANCIS ; JOHN FRANCIS CLAUSER

Inventor(s): (std): CLAUSER JOHN F ; CLAUSER JOHN FRANCIS

Inventor(s): JOHN FRANCIS CLAUSER

Agent(s): HALFORDS IP; FINLAYSON AND SINGLEHURST

Designated states: AT AU BE CA CH DE DK ES FR GB IT JP LI LU NL NO SE SU

9) Family number: 30141025 (US2002120723A)

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Title: SYSTEMS FOR IN THE FIELD CONFIGURATION OF INTELLIGENT ELECTRONIC DEVICES

Abstract: A system for modifying the functionality of intelligent electronic devices installed and operating in the field is disclosed. Each of the intelligent electronic devices operates with a software configuration to monitor electrical energy. A copy of the software configurations may be maintained in a database. Changes to the operation of one or more of the intelligent electronic devices may be made as a function of modifications to the database.

Classifications:

International (IPC 8-9): G01D4/00 G01R1/00 G01R11/02 G01R21/00

G01R21/06 G01R22/00 G01R35/04 G06F11/30 G06F12/14

G06F15/173 G06F15/177 G06F19/00 G06F9/44 G06F9/445

H02B1/052 H04L29/06 H04L29/08 H04L9/10

H04L9/32 (Advanced/Invention);

G01R21/133 H02B1/052 H04L12/16 H04L29/08 (Advanced/Non-

invention);

G01R1/00 G01R22/00 G06F19/00 H02B1/015 (Core/Invention);

H04L29/08 (Core/Non-invention)

International (IPC 1-7): G01D18/00 G01R1/00 G01R11/32

G01R21/00 G01R21/06 G01R22/00 G06F11/30 G06F15/177

G06F17/00 G06F17/60 G06F19/00 G06F3/06 G06F7/00 H02B1/00

H04L12/16 H04L9/00 H04L9/32 H04L9/38

CPC: Y02B90/241 Y04S20/30 Y04S20/32 Y10S707/99945

Y10S707/99948 H04L9/3242 H04L2209/56 H04L2209/80 Y04S40/24

Y02B90/248 Y04S20/52 G01R21/133 G01R22/00 G06Q50/06

H04L67/34 H04L69/329 G01D4/004 G01R22/10 Y02B90/242

Y02B90/246 Y04S20/322 Y04S20/42 Y02B90/24 H02B1/052

H02B1/0523 Y10T403/599 H04L69/28 H04L9/38 H04L29/06

G06F8/656

European: G01D4/00R1 G01R22/00 G06F8/67 G06Q50/06

H02B1/052 H04L29/06 H04L29/08N33 H04L9/32 H04L9/32R

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Y02B90/24B Y02B90/24B2 Y02B90/24F Y04S20/30 Y04S20/32

Y04S20/32B Y04S20/42

US: 1/1 1/1P 200/295 324/103.00R 324/103R 324/110 324/110P

324/142 324/157 324/500 361/659 361/659S 361/668 361/679

361/809 361/823 403/325 439/532 70/26.5 700/291 702/104

702/104P 702/57 702/60 702/61 702/62 702/62P 702/65 705/412

705/412S 705/63 705/63S 707/100 707/104.1 707/999.1

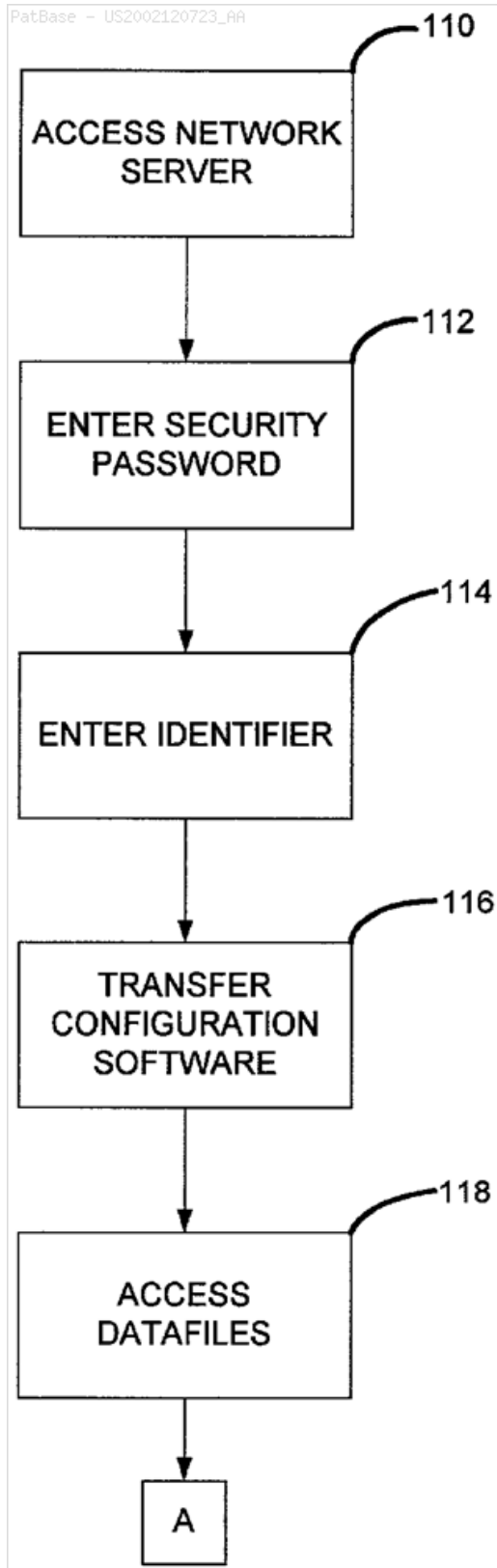
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713/200 713/340 714/6.32 714/7 717/11 717/168 717/168P 726/26

726/26S 726/36 726/36P D10/99 D13/147

Locarno class: 10/04

**Family:**

Publication number	Publication date	Application number	Application date
CA2369965 AA	20020823	CA20022369965	20020201
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CA2370020 AA	20020823	CA20022370020	20020129
CA2370020 C	20090526	CA20022370020	20020129
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CA97356 S	20030428	CA20010097356F	20010823
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US2002165677 AA	20021107	US20010931527	20010815
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US2005071106 AA	20050331	US20040991898	20041118

US2006230394 AA	20061012	US20060454480	20060616
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Priority:

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US20080047774	20080313				

Probable Assignee: POWER MEASUREMENT LTD

Assignee(s): (std): POWER MEASUREMENT LTD

Assignee(s): POWER MANAGEMENT LTD ; HYATT GEOFFREY T ; LIGHTBODY SIMON H ; JONKER RENE T ; PRZYDATEK PIOTR B ; OZCETIN KURTULUS H ; CAROLSFELD RUDOLF SCHNORR VON ; COWAN PETER C ; DAGG JORDAN M ; DAGG JORDON M ; HANCOCK MARTIN A ; FORTH J BRADFORD ; HIRSCHBOLD MARKUS F ; HAYTT GEOFFREY T ; HUBER BENEDIKT T ; ETHERIDGE HAL E

Inventor(s): (std): HIRSCHBOLD MARKUS F ; FORTH J BRADFORD ; LIGHTBODY SIMON H ; HANCOCK MARTIN A ; HYATT GEOFFREY T ; DAGG JORDON M ; HUBER BENEDIKT T ; OZCETIN KURTULUS H ; ETHERIDGE HAL E ; PRZYDATEK PIOTR B ; CAROLSFELD RUDOLF SCHNORR VON ; COWAN PETER C ; JONKER RENE T ; GILBERT BRYAN J ; VON CAROLSFELD RUDOLF SCHNORR ; MACFARLANE I ROSS ; HARDING STEWART J ; SIMBECK WERNER REINHARD ; FORTH J B ; HAYTT GEOFFREY T ; DAGG JORDAN M

Inventor(s): HYATT GEOFFREY ; LIGHTBODY SIMON ; HIRSCHBOLD MARKUS ; HANCOCK MARTIN ; FORTH J ; GILBERT BRYAN ; DAGG JORDON ; HUBER BENEDIKT ; OZCETIN KURTULUS ; ETHERIDGE HAL ; PRZYDATEK PIOTR ; DAGG JORDAN ; STEWART J HARDING ; MARKUS F HIRSCHBOLD ; I ROSS MACFARLANE ; WERNER REINHARD SIMBECK ; J BRADFORD FORTH ; JORDON M DAGG ; MARTIN A HANCOCK ; GEOFFREY T HYATT ; SIMON H LIGHTBODY ; PIOTR B PRZYDATEK ; BENEDIKT T HUBER

Agent(s): SMART AND BIGGAR; FETHERSTONHAUGH AND CO; BRINKS HOFER GILSON AND LIONE; BRINKS HOFER GILSON AND LIONE/PML, INDIANAPOLIS OFFICE; BRINKS HOFER GILSON AND LIONE PML INDIANAPOLIS OFFICE; BRINKS HOFER GILSON AND LIONE/PML; BRINKS HOFER GILSON AND LIONE PML

10) Family number: 59284027 (US2015137684A)

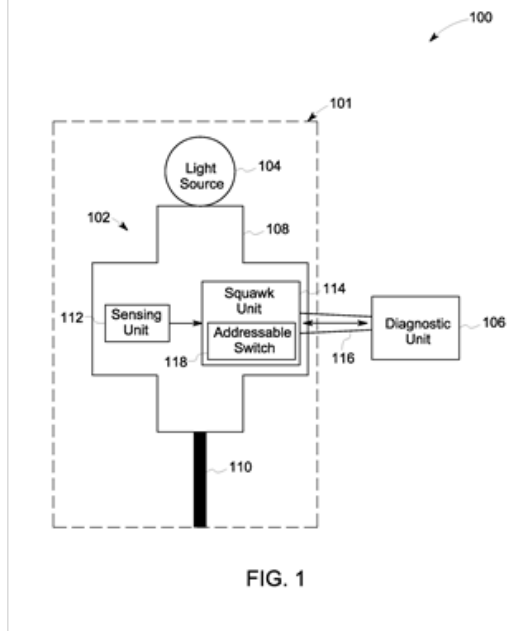
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Title: SYSTEM AND METHOD FOR MONITORING STREET LIGHTING LUMINAIRES

Abstract: A system for identifying a fault in a light source is presented. The system includes at least one luminaire that includes the light source configured to emit light. Also, the at least one luminaire includes a monitoring device disposed proximate to the light source. The monitoring device includes a sensing unit configured to measure an amount of light emitted by the light source, and a squawk unit configured to generate a squawk signal based on the amount of light emitted from the light source, where the squawk signal is indicative of the fault in the light source. Further, the system includes a diagnostic unit communicatively coupled to the at least one luminaire and configured to determine the fault in the light source based on the squawk signal, and transmit a termination signal to the squawk unit to decouple an electrical power supply from the light source.

Classifications:

International (IPC 8-9): F21S2/00 F21S8/08 F21V23/04 F21V33/00
F21W131/103 G01P15/18 G01R22/06 G01S11/02 G01S11/06
G01S11/12 G01S13/88 G01S19/14 G01S19/47 G01S7/00 G08B21/18
G08B3/00 G08C17/02 G08C19/00 G08C19/16 G08C19/22
G08C23/04 G08G1/00 G08G1/01 G08G1/017 G08G1/04 G08G1/048
G08G1/054 G08G1/07 G08G1/08 G08G1/087 G08G1/09 G08G1/095
G08G1/0965 H02J7/00 H02J7/34 H04B10/112 H04Q9/00 H04W4/02
H04W4/04 H05B33/08 H05B37/02 H05B37/03
H05B47/10 (Advanced/Invention);
F21S2/00 F21S8/08 F21V23/04 F21V33/00 F21W131/103 G01S11/02
G01S11/12 H02J7/34 H05B33/08 H05B37/02 (Advanced/Non-invention)
CP: F21S2/00 F21S8/08 F21V23/0435 Y02B20/48 G01S7/003
G01S13/88 H05B47/175 H05B47/19 H02J7/00 H05B45/10 H05B45/37
H05B47/18 H05B47/22 H04W4/026 F21S8/085 F21V33/00
F21W2131/103 G01P15/18 G01R22/06 G01S11/02 G01S11/06
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Y02B20/72 H05B47/10 H05B47/185 G08G1/0116 G08G1/0129
G08G1/0133 G08G1/0141 G08G1/0145 G08G1/0175 G08G1/04
G08G1/054 G08G1/091 H04B3/544 G08G1/095 G08G1/207
F21S8/086 F21S8/088 G08G1/048 H05B47/115 H05B47/105
US: 1/1 307/18 315/120 315/294 315/312 340/686.1 340/906
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**Family:**

Publication number	Publication date	Application number	Application date
AU2014352747 AA	20160609	AU20140352747	20141121
AU2014352747 BB	20180118	AU20140352747	20141121
AU2014352751 AA	20160609	AU20140352751	20141121
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AU2019200553 AA	20190214	AU20190200553	20190129
AU2019204346 AA	20190711	AU20190204346	20190620
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BR112016011563 A2	20170808	BR20161111563	20141121
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AU20190200553	20190129	AU20190204346	20190620		

Probable Assignee: CURRENT LIGHTING SOLUTIONS LLC F K A GE LIGHTING SOLUTIONS LLC

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Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG

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