

1) Family number: 49006069 (US2011129207A)

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Title: PHOTOGRAPHIC CONTROL SYSTEM, DEVICES AND METHOD

Abstract: A control system for use with preconfigured photographic equipment is disclosed including a controllable photographic device controllable by a controlling photographic device. The controllable photographic device may have a housing, and a device circuit having an upstream portion and a downstream portion coupled by control lines substantially within the housing. An internal module may be physically located substantially within the housing and may include a signal directing arrangement electrically and logistically coupled with the one or more control lines between the upstream portion and the downstream portion. The system may also include an external module configured to be physically located substantially outside of the housing, and electrically and logistically coupled with the internal module. The external module may include a signal receiving device capable of receiving a wireless control signal from the controlling photographic device, and to cause a module generated signal to be sent by the internal module to the downstream portion upon receipt of the wireless control signal.

Classifications:

International (IPC 8-9): G03B17/00 G06F17/30

G06Q10/00 (Advanced/Invention)

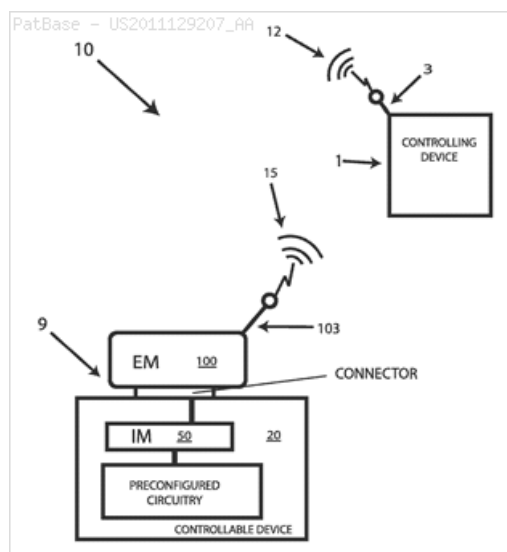
CPC: G03B15/05 G03B2215/0557 H04N5/2256 H04N5/23203

G06F16/58 G06Q10/00 G06F21/10 G06Q30/016

European: G03B15/05 G06F17/30M2 G06F21/10 G06Q10/00

G06Q30/016 H04N5/225L H04N5/232C S03B215/05C4

US: 396/56 396/56P 705/304 705/304P 707/689 707/689S 707/769 707/769S 707/E17.005 707/E17.005S 707/E17.014 707/E17.014S



Family:

Publication number	Publication date	Application number	Application date
US2011129207 AA	20110602	US20100825270	20100628
US2011167008 AA	20110707	US20110986788	20110107
US2012321287 AA	20121220	US20120526440	20120618
US8224170 BB	20120717	US20100825270	20100628

Priority:

US20090221083P 20090628 US20100293145P 20100107 US20100825270 20100628
US20110986788 20110107 US20120526440 20120618

Probable Assignee: PROMARK INT INC

Assignee(s): (std): KACHEVAS MATTHEW M ; KING KEVIN JAMES ; LEAP DEVICES LLC

Assignee(s): PROMARK INT INC

Inventor(s): (std): KACHEVAS MATTHEW M ; KING KEVIN JAMES

2) Family number: 28164109 (US2002009296A)

© PatBase

Title: TRANSCEIVER UNITS AND A TRANSCEIVER SYSTEM FOR THE REMOTE CONTROL OF ELECTRONIC EQUIPMENT

Abstract: The present invention is a transceiver and system for controlling photographic equipment. Each transceiver unit of the present invention can be pre-set as an "originating," "remote" or "relay" unit, and regardless of which setting, each unit is capable of transmitting and receiving coded radio or optical signals. Each unit has at least one selector switch, various input and output connections, a transceiver chip, a microcontroller and associated electronic circuits. Encoded signal pulses containing channel, system, and control codes are transmitted, received and/or relayed between units. The ability to select the function of any one transceiver allows identical units to be flexibly employed as a system and readily configured by the user.

Classifications:

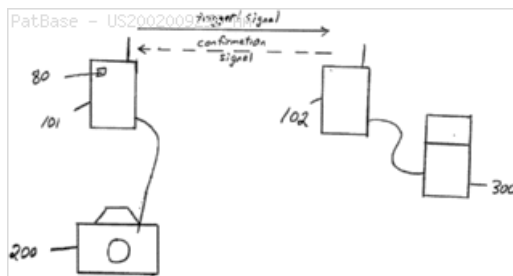
International (IPC 8-9): G03B15/05 G03B17/00 (Advanced/Invention);
G03B15/05 G03B17/00 (Core/Invention)

International (IPC 1-7): G03B15/03 G03B17/00

CPC: G03B2215/05 G03B15/05 G03B17/00

European: G03B15/05 G03B17/00

US: 396/182 396/56



Family:

Publication number	Publication date	Application number	Application date
US2002009296 AA	20020124	US20010899953	20010706

Priority:

US20000220041P 20000721 US20010899953 20010706

Probable Assignee: RILIN GROUP INC

Assignee(s): (std): QUANTUM INSTR INC

Assignee(s): QUANTUM INSTRUMENTS INC ; RILIN GROUP INC

Inventor(s): (std): GONG HENRY ; SHAPER RICHARD

3) Family number: 46548167 (US2010202767A)

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Title: IMAGING APPARATUS, FLASH DEVICE, AND CONTROL METHOD THEREOF

Abstract: An imaging apparatus for performing wireless communication with a flash device, including a generation unit configured to generate a plurality of emitting instructions which include timing information indicating a timing for emitting the flash device, wherein each emitting instruction includes different timing information, and a transmission unit configured to successively transmit the plurality of emitting instructions to the flash device, wherein the transmission unit transmits each emitting instruction in succession based on the timing information.

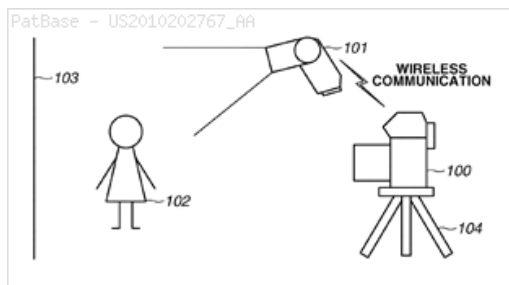
Classifications:

International (IPC 8-9): G03B15/03 G03B15/05 G03B17/00 G03B7/091 H04B7/26 H04N5/225 H04N5/238 (Advanced/Invention); H04N101/00 (Advanced/Non-invention); G03B15/03 G03B15/05 G03B7/091 H04N5/225 H04N5/238 (Core/Invention)

CPC: H04B7/26 H04N5/2256 G03B15/05 G03B2215/0521 G03B2215/0525 G03B2215/0535 G03B2215/0557 G03B2215/056

European: G03B15/05

US: 348/370 396/56 396/56P



Family:

Publication number	Publication date	Application number	Application date
JP2010185958 A2	20100826	JP20090028766	20090210
JP2010185961 A2	20100826	JP20090028803	20090210
JP5247510 B2	20130724	JP20090028803	20090210
JP5692965 B2	20150401	JP20090028766	20090210
US2010202767 AA	20100812	US20100700098	20100204
US2012213502 AA	20120823	US20120463184	20120503
US2013230304 AA	20130905	US20130864981	20130417
US2014037280 AA	20140206	US20130049120	20131008
US2014347554 AA	20141127	US20140457891	20140812
US8195040 BB	20120605	US20100700098	20100204
US8442394 BB	20130514	US20120463184	20120503
US8577215 BB	20131105	US20130864981	20130417
US8837930 BB	20140916	US20130049120	20131008
US9031397 BB	20150512	US20140457891	20140812

Priority:

JP20090028766 20090210 JP20090028803 20090210 US20100700098 20100204
 US20120463184 20120503 US20130864981 20130417 US20130049120 20131008
 US20140457891 20140812

Probable Assignee: CANON INC

Assignee(s): (std): CANON KK ; SHIRAKAWA YUSUKE

Assignee(s): CANON INC ; CANON KABUSHIKI KAISHA

Inventor(s): (std): SHIRAKAWA YUSUKE

Agent(s): CANON USA INC INTELLECTUAL PROPERTY DIVISION; CANON USA INC IP DIVISION; CANON U S A INC IP DIVISION

4) Family number: 13928179 (US6351610B)

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Title: EXTERNAL FLASH CONTROL SYSTEM

Abstract: A flash control system remotely controls an external flash by a camera. In the camera, a guide number is

calculated as an exposure factor for the external flash, and a flash-light emission timing of the external flash is calculated. A built-in flash of the camera is controlled to emit two light signals at a time interval representing the guide number. The external flash detects the two light signals. A timing of a flash-light emission of the external flash is controlled in accordance with one of the two light signals. An amount of the flash-light emission of the external flash is controlled in accordance with the time interval.

Classifications:

International (IPC 8-9): G03B15/02 G03B15/05

G03B7/16 (Advanced/Invention);

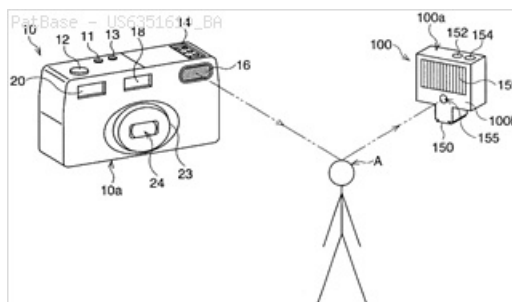
G03B15/02 G03B15/05 G03B7/16 (Core/Invention)

International (IPC 1-7): G03B15/02 G03B15/05 G03B7/16

CPC: G03B2215/0503 G03B2215/0557 G03B15/05 G03B7/16

European: G03B15/05 G03B7/16

US: 396/171 396/180 396/182 396/56



Family:

Publication number	Publication date	Application number	Application date
DE10013113 A1	20000921	DE20001013113	20000317
DE10013113 B4	20100708	DE20001013113	20000317
FR2791146 A1	20000922	FR20000003537	20000320
FR2791146 B1	20010824	FR20000003537	20000320
GB200006713 A0	20000510	GB20000006713	20000320
GB2349705 A1	20001108	GB20000006713	20000320
GB2349705 B2	20030402	GB20000006713	20000320
JP2000338573 A2	20001208	JP20000077645	20000321
JP3746934 B2	20060222	JP20000077645	20000321
US6351610 BA	20020226	US20000531480	20000320

Priority:

JP19990076147 19990319 JP20000077645 20000321

Probable Assignee: HOYA CORP

Assignee(s): (std): ASAHI OPTICAL CO LTD ; HOYA CORP

Assignee(s): PENTAX RICOH IMAGING CO LTD ; PENTAX CORP ; ASAHI KOGAKU KOGYO K K TOKIO TOKYO ; ASAHI KOGAKU KOGYO KK

Inventor(s): (std): NUMAKO NORIO ; KAWASAKI MASAHIRO

Inventor(s): MASAHIRO KAWASAKI ; NORIO NUMAKO

5) Family number: 13928182 (US6366737B)

© PatBase

Title: EXTERNAL FLASH CONTROL SYSTEM

Abstract: A flash control system remotely controls an external flash by a camera. In the camera, a stop value is calculated as a photographic exposure factor for the external flash, and a flash-light emission timing of the external flash is calculated. A built-in flash of the camera is controlled to emit two light signals at a time interval representing the stop value. The external flash detects the two light signals. A timing of a flash-light emission of the external flash is controlled in accordance with one of the two light signals. An amount of the flash-light emission of the external flash is controlled in accordance with the time interval.

Classifications:

International (IPC 8-9): G03B15/05 G03B7/16 (Advanced/Invention);

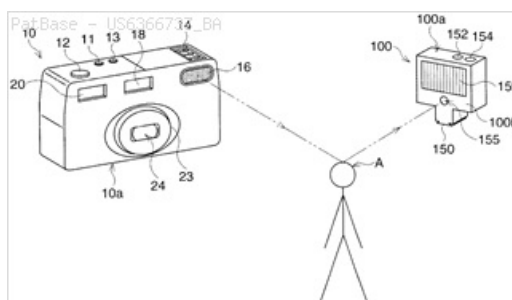
G03B15/05 G03B7/16 (Core/Invention)

International (IPC 1-7): G03B15/05 G03B17/02 G03B7/16

CPC: G03B2215/0503 G03B2215/0557 G03B15/05 G03B7/16

European: G03B15/05 G03B7/16

US: 396/171 396/180 396/182 396/56



Family:

Publication number	Publication date	Application number	Application date
DE10013015 A1	20000921	DE20001013015	20000317
DE10013015 B4	20100708	DE20001013015	20000317
FR2791149 A1	20000922	FR20000003538	20000320
FR2791149 B1	20010914	FR20000003538	20000320
GB200006718 A0	20000510	GB20000006718	20000320
GB2349706 A1	20001108	GB20000006718	20000320
GB2349706 B2	20030402	GB20000006718	20000320
JP2000338574 A2	20001208	JP20000077705	20000321
JP3718404 B2	20051124	JP20000077705	20000321
US6366737 BA	20020402	US20000531481	20000320

Priority:

JP19990076232 19990319 JP20000077705 20000321

Probable Assignee: HOYA CORP

Assignee(s): (std): ASAHI OPTICAL CO LTD ; HOYA CORP

Assignee(s): PENTAX RICOH IMAGING CO LTD ; PENTAX CORP ; ASAHI KOGAKU KOGYO K K ; ASAHI KOGAKU KOGYO K K TOKIO TOKYO ; ASAHI KOGAKU KOGYO KK

Inventor(s): (std): NUMAKO NORIO ; KAWASAKI MASAHIRO

Inventor(s): MASAHIRO KAWASAKI ; NORIO NUMAKO

Agent(s): SANTARELLI

6) Family number: 13928191 (US6353711B)

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Title: EXTERNAL FLASH CONTROL SYSTEM

Abstract: A flash control system remotely controls an external flash by a camera. In the camera, a first factor is calculated to determine an amount of a flash-light to be emitted from a built-in flash of the camera, and a second factor to determine an amount of a flash-light to be emitted from the external flash, a total amount of both the flash-light emissions of the flashes corresponding to a proper exposure with which an object should be photographed. The built-in flash emits two light signals therefrom at a time interval such that the second factor is represented by the time interval between the signals. An amount of the flash-light emission of the external flash is controlled according to the time interval such that the flash-light amount of the external flash coincides with the second factor.

Classifications:

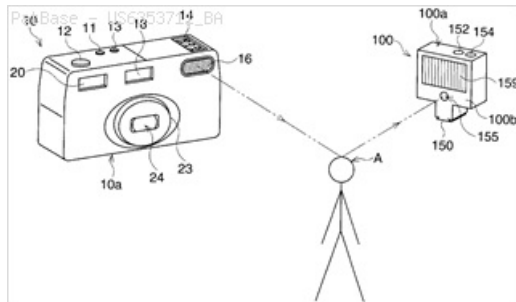
International (IPC 8-9): G03B15/02 G03B15/03 G03B15/05 G03B7/16 (Advanced/Invention);
G03B15/02 G03B15/03 G03B15/05 G03B7/16 (Core/Invention)

International (IPC 1-7): G03B15/02 G03B15/03 G03B15/05 G03B17/02 G03B7/16

CPC: G03B2215/0503 G03B2215/0557 G03B15/05 G03B7/16

European: G03B15/05 G03B7/16

US: 396/171 396/180 396/182 396/56



Family:

Publication number	Publication date	Application number	Application date
DE10013010 A1	20000921	DE20001013010	20000317
FR2791148 A1	20000922	FR20000003496	20000317
FR2791148 B1	20010824	FR20000003496	20000317
GB200006730 A0	20000510	GB20000006730	20000320
GB2349707 A1	20001108	GB20000006730	20000320
GB2349707 B2	20030402	GB20000006730	20000320
JP2000338575 A2	20001208	JP20000078398	20000321
JP2000338576 A2	20001208	JP20000078428	20000321
US6353711 BA	20020305	US20000531476	20000320

Priority:

JP19990076108 19990319 JP19990076434 19990319 JP20000078398 20000321
JP20000078428 20000321

Probable Assignee: ASAHI KOGAKU KOGYO KK

Assignee(s): (std): ASAHI OPTICAL CO LTD

Assignee(s): PENTAX CORP ; ASAHI KOGAKU KOGYO K K TOKIO TOKYO ; ASAHI KOGAKU KOGYO KK

Inventor(s): (std): NUMAKO NORIO ; KAWASAKI MASAHIRO

Inventor(s): MASAHIRO KAWASAKI ; NORIO NUMAKO

7) Family number: 42616295 (US2008298792A)

© PatBase

Title: POWER MANAGEMENT SYSTEM AND METHOD FOR PHOTOGRAPHIC WIRELESS COMMUNICATION

Abstract: A system and method for setting the power operating condition of a photographic wireless communication device. An information representing a shutter speed of a camera body is detected from the camera body. A shutter speed of the camera body is determined from the information representing a shutter speed. The power operating condition of the photographic wireless communication device is automatically set based on the shutter speed of the camera body.

Classifications:

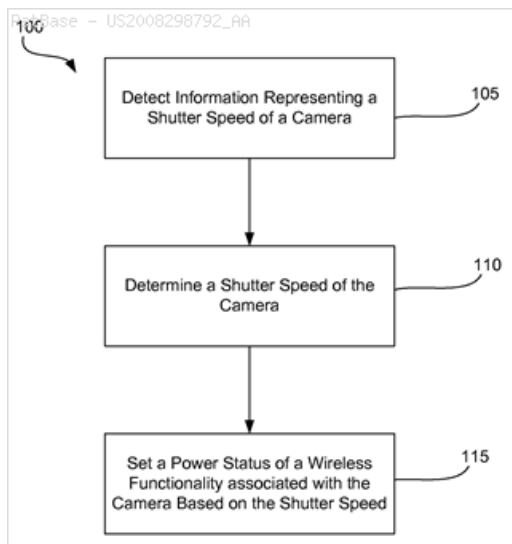
International (IPC 8-9): F21K5/16 G03B15/02 G03B15/03 G03B15/05 G03B15/07 G03B17/00 G03B17/56 G03B7/16 G03B9/70 G03G15/05 H04N5/04 H04N5/225 H04N5/232 H04N5/235 H04N5/44 (Advanced/Invention);
G03B15/03 G03B17/00 H04N5/225 (Core/Invention)

CPC: G03B17/00 H04N5/23241 H04N5/23203 G03B15/05

G03B2215/056 H04N5/2256 G03B17/566

European: G03B17/00 H04N5/225L H04N5/232C H04N5/232P

US: 1/1 296/56 348/370 348/371 348/375 396/157 396/180 396/180S 396/182 396/189 396/198 396/198P 396/205 396/56 396/56P 396/57 396/57P



Family:

Publication number	Publication date	Application number	Application date
EP2162792 A1	20100317	EP20080756458	20080529
EP2162792 A4	20110824	EP20080756458	20080529
JP2010529749 T2	20100826	JP20100510491T	20080529
JP5220104 B2	20130626	JP20100510491T	20080529
US2008298792 AA	20081204	US20080129447	20080529
US2008298793 AA	20081204	US20080129402	20080529
US2010316364 AA	20101216	US20100861445	20100823
US2011123185 AA	20110526	US20110021951	20110207
US2012027395 AA	20120202	US20110253596	20111005
US2013100340 AA	20130425	US20120708326	20121207
US2013343742 AA	20131226	US20130015336	20130830
US2014369673 AA	20141218	US20140472320	20140828
US2016119524 AA	20160428	US20160987589	20160104
US2017201666 AA	20170713	US20170464293	20170320
US7775575 BB	20100817	US20080129447	20080529
US7783188 BB	20100824	US20080129402	20080529
US7885533 BB	20110208	US20100861445	20100823
US8326140 BB	20121204	US20110253596	20111005
US8331776 BB	20121211	US20110021951	20110207
US8526808 BB	20130903	US20120708326	20121207
US8824882 BB	20140902	US20130015336	20130830
US9250499 BB	20160202	US20140472320	20140828
US9602707 BB	20170321	US20160987589	20160104
US10429724 BB	20191001	US20170464293	20170320
WO08150902 A1	20081211	WO2008US65137	20080529
WO08150904 A1	20081211	WO2008US65139	20080529

Priority:

US20070940693P	20070529	US20070940694P	20070529	US20080030558P	20080221
US20080030558	20080221	US20080129447	20080529	US20080129402	20080529
WO2008US65137	20080529	US20100861445	20100823	US20110021951	20110207
US20110253596	20111005	US20120708326	20121207	US20130015336	20130830
US20140472320	20140828	US20160987589	20160104	US20170464293	20170320

Probable Assignee: LAB PARTNERS ASSOCIATES INC

Assignee(s): (std): CLARK JAMES E ; LAB PARTNERS ASS INC ; LAB PARTNERS ASSOCIATES INC

Inventor(s): (std): CLARK JAMES E

Agent(s): WIHLSSON JOAKIM PER MAGNUS; NAKANISHI MOTOHARU; ONO SHINJIRO; SHAMOTO ICHIO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; DOWNS RACHLIN MARTIN PLLC; BIRCH TREE IP LAW AND STRATEGY PLLC; JAMIE; GALLAGHER JAMIE T; MEIER LAWRENCE H

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 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 PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

8) Family number: 5188309 (US5159375A)

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Title: Camera having a remote control function

Abstract: A camera system includes a remote controller and a body of a camera. The remote controller is incorporated in a lens cap of the camera. A photographing magnification for an object is set by the remote controller. A taking lens of the camera is automatically driven to attain an in-focus position defined by a distance to the object and the magnification set by the remote controller. Thus, an image of a desired magnification can be photographed by remote control using the remote controller.

Classifications:

International (IPC 8-9): G02B3/00 G02B7/08 G02B7/28 G03B11/04 G03B17/38 G03B7/091 (Advanced/Invention);

[illegible]

Publication number	Publication date	Application number	Application date
JP3179408 A2	19910805	JP19890319849	19891208
JP3179435 A2	19910805	JP19890319850	19891208
US5159375 A	19921027	US19900625082	19901207

Inventor(s): (std): TANIGUCHI NOBUYUKI ; OKADA HIROYUKI ; NAKAJIMA HIDEKAZU ; TSUJI KENJI ; NAKAMURA IKUSHI ; TSUJI SADAFUSA ; NAKAMURA YASUSHI ; TSUJI KANBOU

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graph TD; 405[405 Provide a photographic lighting device in association with a camera] --> 410[410 1st shutter blade moves such that light is allowed to pass to sensor]; 410 --> 415[415 Initiate light emission after 1st shutter blade begins to expose sensor and before 1st shutter blade stops movement];
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405 Provide a photographic lighting device in association with a camera

410 1st shutter blade moves such that light is allowed to pass to sensor

415 Initiate light emission after 1st shutter blade begins to expose sensor and before 1st shutter blade stops movement

Publication number	Publication date	Application number	Application date
CA2752169 AA	20110810	CA20102752169	20100212
CN102388342 A	20120321	CN201080016224	20100212
EP2396699 A1	20111221	EP20100741797	20100212
EP2396699 A4	20121003	EP20100741797	20100212
EP2405298 A1	20120111	EP20110177995	20100212
EP2418540 A1	20120215	EP20110177997	20100212
GB201314863 A0	20131002	GB20130014863	20120221
GB2502729 A1	20131204	GB20130014863	20120221
HK1168660 A1	20130104	HK20120109326	20120921
JP2012517624 T2	20120802	JP20110550269T	20100212
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US2012207459 AA	20120816	US20110208686	20110812
US2012207460 AA	20120816	US20110208706	20110812
US2012243859 AA	20120927	US20120401175	20120221
US2014241710 AA	20140828	US20140270107	20140505
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US8718461 BB	20140506	US20120401175	20120221
US8917350 BB	20141223	US20100201281	20100212
US9354491 BB	20160531	US20140270107	20140505
WO10093914 A1	20100819	WO2010US24088	20100212
WO12161772 A1	20121129	WO2012US25915	20120221

PatBase PDF Export - Page: 6 06/12/2019

US20090152089P 20090212 EP20100741797 20100212 US20100201281 20100212
WO2010US24088 20100212 US20110444784P 20110220 US20110208686 20110812
US20110208706 20110812 US20120401175 20120221 WO2012US25915 20120221
US20140270107 20140505 US20160169638 20160531

Probable Assignee: LAB PARTNERS ASSOCIATES INC

Assignee(s): (std): CLARK JAMES E ; LAB PARTNERS ASS INC ; LAB PARTNERS ASSOCIATES INC ; LAB PATNERS ASSOCIATES INC

Inventor(s): (std): CLARK JAMES E

Inventor(s): JAMES E CLARK

Agent(s): DERENYI EUGENE F; FOGLER RUBINOFF LLP; SMITHSON ROBERT ALAN; CHINA PATENT AGENT HK LTD; NAKANISHI MOTOHARU; ONO SHINJIRO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; DOWNS RACHLIN MARTIN PLLC; BIRCH TREE IP LAW AND STRATEGY PLLC; MEIER LAWRENCE H

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

10) Family number: 44231511 (US2010008658A)

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Title: METHODS AND SYSTEMS TO PREPARE AND ACTIVATE A WIRELESS CAMERA FLASH BY RADIO

Abstract: Methods and systems to prepare and activate a wireless flash device may comprise a remote camera flash device comprising: a first radio communication device coupled to a camera, and at least a second radio communication device coupled to the remote camera flash device. The first radio communication device may transmit at least one radio signal to the second radio communication device in response to receiving camera communications sent from the camera, the second radio communication device sends pseudo camera communications to the remote camera flash device in response to receiving the at least one radio signal, and the second radio communication device does not transmit a radio signal.

Classifications:

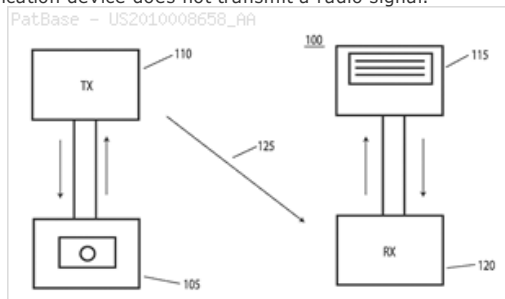
International (IPC 8-9): G03B17/00 (Advanced/Invention);

G03B17/00 (Core/Invention)

CPC: G03B17/00

European: G03B17/00

US: 396/155 396/56 396/56P



Family:

Publication number	Publication date	Application number	Application date
US2010008658 AA	20100114	US20090501393	20090710
US8116620 BB	20120214	US20090501393	20090710

Priority:

US20070974790P 20070924 US20080079789P 20080710 US20080284629 20080924
US20090501393 20090710

Probable Assignee: PROMARK INT INC

Assignee(s): (std): KING KEVIN J ; LEAP DEVICES LLC

Assignee(s): PROMARK INT INC

Inventor(s): (std): KING KEVIN ; KING KEVIN J

Agent(s): NOBLITT GROUP PLLC

11) Family number: 13256728 (US6404987B)

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Title: FLASH SYSTEM

Abstract: In a flash system, information on a light emission mode, etc., is communicated to a slave flash device through pulse light emitted from a master flash device, and, after completion of communication of the information, the master flash device makes light emission, which causes the slave flash device to start to make light emission in an operative mode according to the communicated information.

Classifications:

International (IPC 8-9): G03B15/02 G03B15/03 G03B15/05

G03B7/16 G03B7/17 H05B37/02 (Advanced/Invention);

G03B17/14 (Advanced/Non-invention);

G03B15/02 G03B15/03 G03B15/05 G03B7/16

H05B37/02 (Core/Invention);

G03B17/12 (Core/Non-invention)

International (IPC 1-7): G03B15/03 G03B15/05 G03B7/16

CPC: G03B7/17 G03B15/05 G03B19/12 G03B2206/00

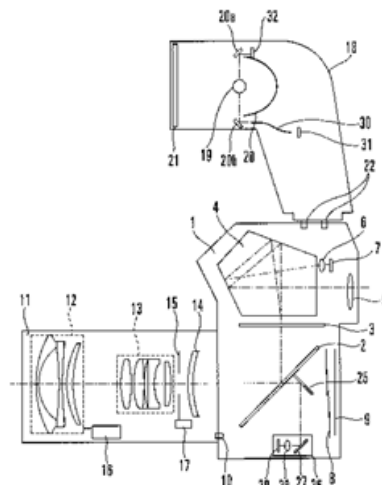
G03B2215/0521 G03B2215/0557

European: G03B15/05 G03B19/12 G03B7/16 S03B206/00

S03B215/05C2B S03B215/05C4

US: 396/106 396/157 396/173 396/182 396/201 396/56

FIG. 1

**Family:**

Publication number	Publication date	Application number	Application date
DE69942572 D1	20100826	DE19996042572	19990906
DE69943859 D1	20120105	DE19996043859	19990906
DE69944359 D1	20121018	DE19996044359	19990906
EP0985958 A2	20000315	EP19990117540	19990906
EP0985958 A3	20001018	EP19990117540	19990906
EP0985958 B1	20100714	EP19990117540	19990906
EP1640794 A2	20060329	EP20050026141	19990906
EP1640794 A3	20060726	EP20050026141	19990906
EP1640794 B1	20111109	EP20050026141	19990906
EP2023199 A2	20090211	EP20080167960	19990906
EP2023199 A3	20110420	EP20080167960	19990906
EP2023199 B1	20120815	EP20080167960	19990906
JP2000089304 A2	20000331	JP19980252588	19980907
JP2000089306 A2	20000331	JP19980253084	19980907
JP2000089307 A2	20000331	JP19980253085	19980907
JP2000089308 A2	20000331	JP19980253086	19980907
JP2000089309 A2	20000331	JP19980253087	19980907
JP2000089310 A2	20000331	JP19980253088	19980907
JP2000089315 A2	20000331	JP19980258534	19980911
JP2007133422 A2	20070531	JP20060354693	20061228
JP3957891 B2	20070815	JP19980258534	19980911
JP3962489 B2	20070822	JP19980253085	19980907
JP3976905 B2	20070919	JP19980253086	19980907
JP4006109 B2	20071114	JP19980252588	19980907
JP4154039 B2	20080924	JP19980253084	19980907
JP4211880 B2	20090121	JP19980253088	19980907
JP4478675 B2	20100609	JP20060354693	20061228
US6404987 BA	20020611	US19990388292	19990901

Priority:

JP19980252588 19980907	JP19980253084 19980907	JP19980253087 19980907
JP19980253088 19980907	JP19980253086 19980907	JP19980253085 19980907
JP19980258534 19980911	EP19990117540 19990906	EP19990117540 19990906
EP20080167960 19990906	EP20050026141 19990906	JP20060354693 20061228

Probable Assignee: CANON INC**Assignee(s):** (std): CANON KK**Assignee(s):** CANON INC ; CANON K K ; CANON KABUSHIKI KAISHA**Inventor(s):** (std): HAJIME FUKUI ; FUKUI HAJIME**Agent(s):** TBK; TBK PATENT; TBK-PATENT**Designated states:** AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE**12) Family number: 3256887** (US4816855A)

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Title: DATA TRANSMISSION SYSTEM FOR A CAMERA**Abstract:** From a data transmission device to a camera system including a camera and electronic flash device, operation

instruction data such as set or calculated exposure control data, shutter release data instructing the operation of the camera system, flash emission testing data and the like are serially transmitted in the form of infrared light signal. When the reception of these data is completed, the camera starts its operation to control given operation of the camera system such as the exposure initiation of the camera, test light emission of the electronic flash device and the like in accordance with received data. Additionally, in the case where the data transmission device is an exposure meter which measures flash light and daylight, flash light emission operation or light emission interruption operation of the electronic flash device is controlled in accordance with the determination whether the exposure control data calculated and transmitted to the camera system is for the daylight photography or the flash light photography.

Classifications:

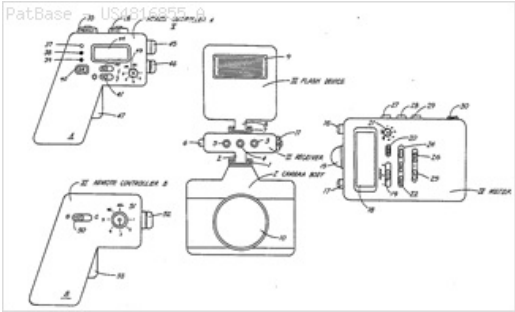
International (IPC 8-9): G03B15/05 G03B17/18 G03B17/38
G03B7/00 G03B7/091 G03B7/16 G03B7/17
H04Q9/00 (Advanced/Invention);
G03B15/05 G03B17/18 G03B17/38 G03B7/00 G03B7/091 G03B7/16
H04Q9/00 (Core/Invention)

International (IPC 1-7): G01J1/42 G03B15/05 G03B17/18
G03B17/38 G03B17/56 G03B7/00 G03B7/16 H04Q9/00

CPC: G03B7/097 G03B17/38 G03B7/16

European: G03B17/38 G03B7/091 G03B7/16

US: 354/266 354/412 354/415 354/423 354/441 354/446 356/218
396/157 396/257 396/57 396/59



Family:

Publication number	Publication date	Application number	Application date
JP61077826 A2	19860421	JP19840201381	19840926
JP61080128 A2	19860423	JP19850044361	19850306
JP61080130 A2	19860423	JP19850038243	19850227
JP61080131 A2	19860423	JP19850039476	19850228
US4816855 A	19890328	US19870126606	19871130
US4884094 A	19891128	US19880215227	19880705

Priority:

JP19840201381 19840926 JP19850038243 19850227 JP19850039476 19850228
JP19850044361 19850306 US19860879110 19860523 US19870126606 19871130

Probable Assignee: MINOLTA CAMERA KK

Assignee(s): (std): MINOLTA CAMERA KK

Assignee(s): MINOLTA CAMERA CO LTD ; MINOLTA CAMERA KABUSHIKI KAISHA

Inventor(s): (std): KITaura MASHIO ; NAKAI MASAaki ; YOSHIDA TADAHIRO ; KIKUKAWA YOSHIKU ; OMAKI
TAKANObU ; TANIGUCHI NOBUYUKI ; KITaura MASASHIO ; KIKUKAWA YOSHIFUMI ; TAMAKI
TAKANObU