DC192_PC192 Command Set

Revisions

No	Issue Date	Version	Description	Apply Firmware
1	2013/07/02	1.0	First version.	
2	2014/01/06	1.1	 Set Audio Microphone Volume: Add command Call Audio Microphone Volume: Add command Set Audio Out Volume/ Call Audio Out Volume: Revise the comment 	DGA106

*Notice:

- 1. The RS-232 command list is for DC192_PC192.
- The Yellow highlight means the latest update
 The Blue highlight means the deleted item.

1. Communication Protocol

Transmit Method: Asynchronous Interface Half

Duplex Serial Communication.

Transmit Speed: 9600bps

Start bit: 1Bit

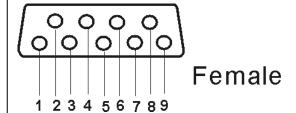
Parity Check: NA

Data Bit: 8Bit

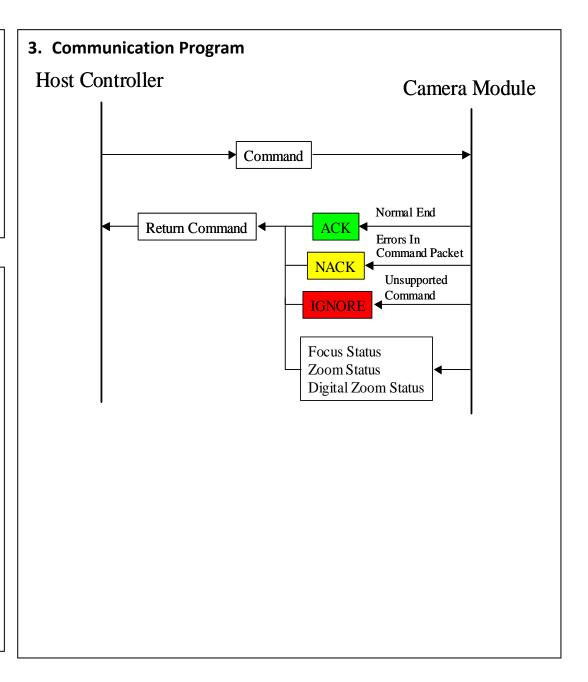
> Stop Bit: 1Bit

2. The wire diagram

The RS232 wire diagram between presenter and remote controller as below



	CONNECTIONS								
DE	9F	COLOUR	DB 9F						
	2	-	3						
	3		2						
	5	-	5						
SH	ELL	DRAIN	SHELL						



4. Command Format

4.1 Command Packet Format

1Byte	STX	Start Of Command	: A0h
2Byte	Command	Command	: 00~FFh
3Byte	Parameter1	Data	: 00~FFh
4Byte	Parameter2	Data	: 00~FFh
5Byte	Parameter3	Data	: 00~FFh
6Byte	ETX	End Of Command	: AFh

4.2 Return Packet Format

1Byte	STX	Start (Of Com	nmand	: A0h
2Byte	Command	Comm	nand		: 00~ FFh
3Byte	Parameter1	Data			: 00~FFh
4Byte	Parameter2	Data	: 00~FFh		
5Byte	Status	<bit></bit>	<0	Contents>	
		7	(0)		
		6	Iris	5	Moving Status (1)/(0)Stop Status
		5	Zo	om	Moving Status (1)/(0)Stop Status
		4	Fo	cus	Moving Status (1)/(0)Stop Status
		3	(0)		
		2	(0)		
		1	Co	mmunicat	tion Response
			0=	ACK/1=NA	K/2=IGNORE/3=Not Used
		0	Co	mmunicat	tion Response
6Byte	ETX	End O	f Comi	mand	: AFh
Commu	inication				
Respon	se	Bit1	Bit0	Status	

ACK	0	0	Capable Of Normal End Or Normal Operation					
			Detecting Errors In Command Packet(STX,					
NAK	0	1	ETX Byte)					
			Parity Error ,Framing Error, Overrun Error					
			Data in out of specified range					
			Cannot execute the transmitted command for					
IGNORE	1	0	other operations					
			Unsupported command					
Not Used	1	1						

5. Command Packet

It a see	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Communit
Item	Function	1B	2B	3B	4B	5B	6B	Comment
1	Preset/Factory Reset	A0h	03h	P1	P2	00h	AFh	P1=0, P2=00/01:Preset Load/Save P1=1:Factory Reset
2	Slide show On/Off	A0h	04h	P1	00h	00h	AFh	P1=00/01:Off/On
3	Slide show Delay	A0h	06h	P1	00h	00h	AFh	P1=0~5:0.5sec/1sec/3sec/5sec/10sec/Manual
4	Image/Record Quality	A0h	07h	P1	00h	00h	AFh	P1=00/01/02:High/Medium/Low
5	Copy From Nand to SD	A0h	08h	00h	00h	00h	AFh	
6	Zoom Stop	A0h	10h	00h	00h	00h	AFh	
7	Zoom Start (No AF)	A0h	11h	P1	P2	00h	AFh	P1=00/01:Tele/Wide
8	Zoom Direct (No AF)	A0h	11h	P1	P2	00h	AFh	p1:low byte p2:high byte Value:0~855 Optical Zoom: XGA:805 SXGA:802 WXGA:802 1080P:795 NTSC:810 PAL:810
9	Auto Erase	A0h	14h	P1	00h	00h	AFh	P1=00/01:Auto Erase off/on
10	Focus Stop	A0h	19h	00h	00h	00h	AFh	
11	Focus Start	A0h	1Ah	P1	P2	00h	AFh	P1=00/01:Near/Far P2=00~06:Speed
12	Focus Direct	A0h	1Bh	P1	P2	Р3	AFh	P1(LowByte)P2(HighByte)=0~160(Dec), P3=00~06:Speed
13	Zoom Start (with AF)	A0h	1Dh	P1	P2	00h	AFh	P1=00/01:Tele/Wide
14	Zoom Direct(with AF)	A0h	1Dh	P1	P2	00h	AFh	p1:low byte p2:high byte Value:0~855

Itana	Franchica	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Comment
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								Optical Zoom:
								XGA:805
								SXGA:802
								WXGA:802
								1080P:795
								NTSC:810
								PAL:810
15	White Balance (AWB, Auto Tune)	A0h	22h	P1	00h	00h	AFh	P1=00/01:Auto Tune/AWB
16	Set Pan Mode	A0h	26h	P1	00h	00h	AFh	P1=00/01 : off/on
17	Mask Mode	A0h	27h	P1	00h	00h	AFh	p1=0:Disable 1:Mask 2:Spolight
18	Freeze	A0h	2Ch	P1	00h	00h	AFh	P1=00/01:Off/On
19	Brightness Contorl	A0h	30h	P1	00h	00h	۸Eh	P1=00/01:Auto/Manua
19	brightness Conton	AUII	3011	P1	UUII	UUII	AFh	P2=60/50Hz: 00~147
20	LogoDelay	A0h	34h	P1	00h	00h	AFh	P1=4~30 (sec)
								P1=0~20(Dec):
								0:English/ 1:Traditional Chinese/ 2:Simplified
								Chinese/ 3:German/ 4:French/ 5:Spanish/
21	Language Select	A0h	38h	P1	00h	00h	AFh	6:Russian/ 7:Dutch/ 8:Finnish/ 9:Polish/
								10:Italian/ 11:Portuguese/ 12:Swedish/
								13:Danish/ 14:Czech/ 15:Arabic/ 16:Japanese/
								17:Korean/ 18:Greek/ 19:Reserved/ 20:Latvia
22	Brightness Step	A0h	39h	P1	00h	00h	AFh	P1=00/01:-1/+1
23	Source live/PC	A0h	3Ah	P1	00h	00h	AFh	00 : Camera 01 : PC

Itom	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Commont
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								02 : Source OFF
24	Disable Digital Zoom After Optical Zoom	A0h	40h	P1	00h	00h	AFh	P1=00/01:Disable/Enable
25	Call Master Version	A0h	45h	00h	00h	00h	AFh	Version code: P1 P2 P3(ASCII)
26	Call AE Status	A0h	46h	00h	00h	00h	AFh	P1=00/01:Off/On
27	Enable/Disable LOGO Image	A0h	47h	P1	00h	00h	AFh	p1=00/01:default logo/user logo
28	Playback Image Index Change Page	A0h	4Ah	P1	00h	00h	AFh	P1=00/01:Page Up/Page Down
29	All OSD On/Off	A0h	4Bh	P1	00h	00h	AFh	P1=00/01:Off/On
30	Call Slave Version	A0h	4Dh	00h	00h	00h	AFh	Version code: P1 P2 P3(ASCII)
31	Frame Average	A0h	4Eh	P1	00h	00h	AFh	P1=00/01:LCD/DLP
32	Call lamp Status	A0h	50h	00h	00h	00h	AFh	00 : Lamp + Head Led OFF 01 : Lamp + Head Led ON 02 : Lamp ON 03 : Head Led ON
33	Call Text/Photo Status	A0h	51h	00h	00h	00h	AFh	P1=00/01/02:Photo/Text/Gray
34	reg1	A0h	52h	P1	P2	00h	AFh	P1=00/01:Read/Write P2=0x00~0xff
34	reg2	A0h	53h	P1	P2	00h	AFh	
36	reg3	A0h	54h	P1	P2	00h	AFh	
37	Error Code	A0h	55h	P1	00h	00h	AFh	p1=00/01:Show Error Code/Clear Error Code AWB Correction Call AC 50/60 Hz power State.
38	AWB Correction	A0h	56h	00h	00h	00h	AFh	
39	Call AC 50/60Hz power state	A0h	58h	00h	00h	00h	AFh	

lt a see	Function	PC AP	to DC1	.92 Mas	ter com	mand fo	ormat	Communit
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								p1:00/01 :Keypad Detect Stop/Start. (Enable
40	Keypad Detect	A0h	59h	P1	00h	00h	AFh	the Debug message at this time, the detection
								message will be sent via RS232.)
								p1:low byte p2:high byte
								XGA:805
								SXGA:802
41	Call Zoom Position	A0h	60h	00h	00h	00h	AFh	WXGA:802
								1080P:795
								NTSC:810
								PAL:810
								p1:low byte p2:high byte
								XGA:50
								SXGA:53
42	Call Digital Zoom Position	A0h	62h	00h	00h	00h	AFh	WXGA:53
								1080P:60
								NTSC:45
								PAL:45
43	Call Focus Position	A0h	64h	00h	00h	00h	AFh	P1(LowByte)P2(HighByte)=0~160(Dec)
44	Call Freeze Status	A0h	78h	00h	00h	00h	AFh	P1=00/01:Off/On
45	Call Brightness Position	A0h	89h	00h	00h	00h	AFh	P1=60/50Hz: 00~147(dec)
								p1:low byte p2:high byte 0~855
								Optical Zoom:
46	Call Mix Zoom Position	A0h	8Ah	00h	00h	00h	AFh	XGA:805
								SXGA:802
								WXGA:802

14.0.00	Franklina	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Comment	
Item	Function	1B	2B	3B	4B	5B	6B	Comment	
								1080P:795	
								NTSC:810	
								PAL:810	
47	Call Menu Status	A0h	8Bh	00h	00h	00h	AFh	P1=00/01:Off/On	
								00 : Single Capture	
48	Capture Action	A0h	96h	P1	00h	00h	AFh	01 : Time Lapse	
40	Capture Action	AUII	3011	L 1	0011	0011	AIII	02 : Record	
								03 : Disabled	
49	Capture time	A0h	97h	P1	00h	00h	AFh	P1=00/01/02/03/04/05/06:1hr/2hr/4hr/	
49	Capture time	AUII	3711	L I	0011	0011	AFII	8hr/24hr/48hr/72hr	
								00 : 3 sec.	
								01 : 5 sec.	
		A0h	98h	P1	00h	00h		02 : 10 sec.	
50	Capture interval						AFh	03 : 30 sec.	
								04 : 1 min.	
								05 : 2 min.	
								06 : 5 min.	
51	Koy Function	A0h	A0h	P1	00h	00h	AFh	P1=01/02/03/04/05/06=Enter/Up/Down/Left/Righ	
21	Key Function	AUII	AUII	PI	UUII	UUII	AFII	t/Menu	
								P1=01/02:Red Gain/Blue Gain	
52	Set R/B Gain	A0h	A1h	P1	P2	Р3	AFh	P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):G	
								ain	
			A2h	P1	00h			Send: P1=01/02:Red Gain/Blue Gain	
53	Call R/B Gain	A0h				00h	AFh	Return :	
								P1(LowByte)P2(HighByte)=0x100~0xFFF(Dec):G	

14.0.00	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Commant
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								ain
54	AF One Push Trigger	A0h	A3h	01h	00h	00h	AFh	
55	Set Gamma Mode	A0h	A7h	P1	00h	00h	AFh	P1=00/01/02:Photo/Text/Gray
56	Set Image Mode	A0h	A9h	P1	00h	00h	AFh	P1=00/01/02/03:Normal/Slide/Film/Microscope
57	System ON/OFF	A0h	B0h	P1	00h	00h	AFh	P1=00/01:Off/On
58	Power	A0h	B1h	P1	00h	00h	AFh	P1=00/01:Off/On
59	Capture	A0h	B2h	P1	00h	00h	AFh	P1=00/01:Capture/Record
60	Playback thumbnail	A0h	B3h	P1	00h	00h	AFh	P1=00:Thumbnail
61	Preview rotation	A0h	B4h	P1	00h	00h	AFh	P1=00/01/02/03:Rotate 0/180/Flip/Mirror
62	Delete	A0h	B6h	P1	00h	00h	AFh	P1=00/01/02: Delete one/Delete all/Format
63	call system status	A0h	B7h	00h	00h	00h	AFh	P1(system status)=00/01: not ready/ Read to receive the command P2(Power Status)=00/01:Off/On
64	Lamp On/Off	A0h	C1h	P1	00h	00h	AFh	00 : Lamp + Head Led OFF 01 : Lamp + Head Led ON 02 : Lamp ON 03 : Head Led ON
65	Firmware Upgrade	A0h	CBh	P1	00h	00h	AFh	P1=00/01:osd/no osd
66	Set Audio Microphone Volume	<mark>A0h</mark>	D4h	<mark>P1</mark>	<mark>00h</mark>	<mark>00h</mark>	AFh	P1=0~16(Dec):Volume
67	Call Audio Microphone Volume	<mark>A0h</mark>	<mark>D5h</mark>	<mark>00h</mark>	<mark>00h</mark>	<mark>00h</mark>	<mark>AFh</mark>	P1=0~16(Dec):Volume

Item	Function	PC AP	to DC1	92 Mast	ter com	mand fo	ormat	Comment
item	runction	1B	2B	3B	4B	5B	6B	Comment
68	Set Audio Out Volume	A0h	D6h	P1	00h	00h	AFh	P1=0~31(Dec):Volume
69	Call Audio Out Volume	A0h	D7h	00h	00h	00h	AFh	P1=0~31(Dec):Volume

6. Return Packet

Itomo	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Comment
Item	Function	1B	2B	3B	4B	5B	6B	Comment
1	Preset/Factory Reset	A0h	03h	P1	P2	St.	AFh	P1=0, P2=00/01:Preset Load/Save P1=1:Factory Reset
2	Slide show On/Off	A0h	04h	P1	00h	St.	AFh	P1=00/01:Off/On
3	Slide show Delay	A0h	06h	P1	00h	St.	AFh	P1=0~5:0.5sec/1sec/3sec/5sec/10sec/Manual
4	Image/Record Quality	A0h	07h	P1	00h	St.	AFh	P1=00/01/02:High/Medium/Low
5	Copy From Nand to SD	A0h	08h	00h	00h	St.	AFh	
6	Zoom Stop	A0h	10h	00h	00h	St.	AFh	
7	Zoom Start (No AF)	A0h	11h	P1	P2	St.	AFh	P1=00/01:Tele/Wide
8	Zoom Direct (No AF)	A0h	11h	P1	P2	St.	AFh	p1:low byte p2:high byte Value:0~855 Optical Zoom: XGA:805 SXGA:802 WXGA:802 1080P:795 NTSC:810 PAL:810
9	Auto Erase	A0h	13h	P1	00h	St.	AFh	P1=00/01:Auto Erase off/on
10	Focus Stop	A0h	19h	00h	00h	St.	AFh	
11	Focus Start	A0h	1Ah	P1	P2	St.	AFh	P1=00/01:Near/Far P2=00~06:Speed
12	Focus Direct	A0h	1Bh	P1	P2	St.	AFh	P1(LowByte)P2(HighByte)=0~160(Dec), P3=00~06:Speed
13	Zoom Start (with AF)	A0h	1Dh	P1	P2	St.	AFh	P1=00/01:Tele/Wide
14	Zoom Direct(with AF)	A0h	1Dh	P1	P2	St.	AFh	p1:low byte p2:high byte Value:0~855 Optical Zoom:

lt a see	Franchica	PC AP	to DC1	92 Mas	ter com	mand f	ormat	Comment
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								XGA:805
								SXGA:802
								WXGA:802
								1080P:795
								NTSC:810
								PAL:810
15	White Balance (AWB, Auto Tune)	A0h	22h	P1	00h	St.	AFh	P1=00/01:Auto Tune/AWB
16	Set Pan Mode	A0h	26h	P1	00h	St.	AFh	P1=00/01 : off/on
17	Mask Mode	A0h	27h	P1	00h	St.	AFh	p1=0:Disable 1:Mask 2:Spolight
18	Freeze	A0h	2Ch	P1	00h	St.	AFh	P1=00/01:Off/On
10	Dui-lite and Court and	A O.I.	201-	D4	001-	Ct	۵.۵۱	P1=00/01:Auto/Manua
19	Brightness Contorl	A0h	30h	P1	00h	St.	AFh	P2=60/50Hz: 00~147
20	LogoDelay	A0h	32h	P1	00h	St.	AFh	P1=4~30 (sec)
21	Language Select	A0h	38h	P1	00h	St.	AFh	P1=0~18(Dec): English/ Traditional Chinese/ Simplified Chinese/ German/ French/ Spanish/ Russian/ Dutch/ Finnish/ Polish/ Italian/ Portuguese/ Swedish/ Danish/ Czech/ Arabic/ Japanese/ Korean/ Greek
22	Brightness Step	A0h	39h	P1	00h	St.	AFh	P1=00/01:-1/+1
								00 : Camera
23	Source live/PC	A0h	3Ah	P1	00h	St.	AFh	01 : PC
								02 : Source OFF
24	Disable Digital Zoom After Optical Zoom	A0h	40h	P1	00h	St.	AFh	P1=00/01:Disable/Enable

lha sa	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Comment
Item	Function	1B	2B	3B	4B	5B	6B	Comment
25	Call Master Version	A0h	45h	P1	P2	Р3	AFh	Version code: P1 P2 P3(ASCII)
26	Call AE Status	A0h	46h	P1	00h	St.	AFh	P1=00/01:Off/On
27	Enable/Disable LOGO Image	A0h	47h	P1	00h	St.	AFh	p1=00/01:default logo/user logo
28	Playback Image Index Change Page	A0h	4Ah	P1	00h	St.	AFh	P1=00/01:Page Up/Page Down
29	All OSD On/Off	A0h	4Bh	P1	00h	St.	AFh	P1=00/01:Off/On
30	Call Slave Version	A0h	4Dh	P1	P2	Р3	AFh	Version code: P1 P2 P3(ASCII)
31	Frame Average	A0h	4Eh	P1	00h	St.	AFh	P1=00/01:LCD/DLP
32	Call lamp Status	A0h	50h	P1	00h	St.	AFh	00 : Lamp + Head Led OFF 01 : Lamp + Head Led ON 02 : Lamp ON 03 : Head Led ON
33	Call Text/Photo Status	A0h	51h	P1	00h	St.	AFh	P1=00/01/02:Photo/Text/Gray
34	reg1	A0h	52h	P1	P2	St.	AFh	P1=00/01:Read/Write P2=0x00~0xff
34	reg2	A0h	53h	P1	P2	St.	AFh	
36	reg3	A0h	54h	P1	P2	St.	AFh	
37	Error Code	A0h	55h	00h	00h	St.	AFh	p1=00/01:Show Error Code/Clear Error Code
38	AWB Correction	A0h	56h	00h	00h	St.	AFh	AWB Correction
39	Call AC 50/60 Hzpower state	A0h	58h	00h	00h	St.	AFh	Call AC 50/60 Hz power State.
40	Keypad Detect	A0h	59h	00h	00h	St.	AFh	p1:00/01 :Keypad Detect Stop/Start. (Enable the Debug message at this time, the detection message will be sent via RS232.)
41	Call Zoom Position	A0h	60h	P1	P2	St.	AFh	p1:low byte p2:high byte XGA:805 SXGA:802

lt e see	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Commant
Item	Function	1B	2B	3B	4B	5B	6B	Comment
								WXGA:802
								1080P:795
								NTSC:810
								PAL:810
								p1:low byte p2:high byte
								XGA:50
								SXGA:53
42	Call Digital Zoom Position	A0h	62h	P1	00h	St.	AFh	WXGA:53
								1080P:60
								NTSC:45
								PAL:45
43	Call Focus Position	A0h	64h	P1	P2	St.	AFh	P1(LowByte)P2(HighByte)=0~160(Dec)
44	Call Freeze Status	A0h	78h	P1	00h	St.	AFh	P1=00/01:Off/On
45	Call Brightness Position	A0h	89h	P1	00h	St.	AFh	P1=60/50Hz: 00~147(dec)
								p1:low byte p2:high byte 0~855
	Call Mix Zoom Position	A0h	8Ah	P1	P2	St.		Optical Zoom:
							AFh	XGA:805
46								SXGA:802
40		AUII						WXGA:802
								1080P:795
								NTSC:810
								PAL:810
47	Call Menu Status	A0h	8Bh	P1	00h	St.	AFh	P1=00/01:Off/On
48	Cantura Action	AOh	96h	P1	00h	St.	AFh	00 : Single Capture
40	Capture Action	A0h	ווטכ	P.I	UUII	Jl.	AFII	01 : Time Lapse

1B 2B 3B 4B 5B 6B	Itara	Franction	PC AP	to DC1	92 Mas	ter com	mand f	ormat	Commont
A0h 97h P1 00h St. AFh P1=00/01/02/03/04/05/06:1hr/2hr/4hr/ Shr/24hr/48hr/72hr 00 : 3 sec. 01 : 5 sec. 02 : 10 sec. 02 : 10 sec. 04 : 1 min. 05 : 2 min. 06 : 5 min. 06 : 5 min. St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Rig t/Menu P1=01/02:Red Gain/Blue Gain	Item	Function	1B	2B	3B	4B	5B	6B	Comment
49 Capture time A0h 97h P1 00h St. AFh P1=00/01/02/03/04/05/06:1hr/2hr/4hr/ 8hr/24hr/48hr/72hr 00 : 3 sec. 01 : 5 sec. 02 : 10 sec. 04 : 1 min. 05 : 2 min. 06 : 5 min. 51 Key Function A0h A0h A0h A0h P1 00h St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Rig t/Menu P1=01/02:Red Gain/Blue Gain P1=01/02:Red Gain/Blue Gain P1=01/02*03(04/05/06=Enter)P1(hex):									02 : Record
A0h 97h P1 00h St. AFh 8hr/24hr/48hr/72hr 00 : 3 sec. 01 : 5 sec. 02 : 10 sec. 02 : 10 sec. 03 : 30 sec. 04 : 1 min. 05 : 2 min. 06 : 5 min. 06 : 5 min. 06 : 5 min. 07 10 min. 08 10 min. 09 mi									03 : Disabled
Shr/24hr/48hr/72hr	40	Cantura tima	ΛOb	07h	D1	OOh	C+	ΛEb	P1=00/01/02/03/04/05/06:1hr/2hr/4hr/
St. AFh St. AFh St. AFh Oth St. Oth	49	Capture time	AUII	3711	LI	0011	31.	AIII	8hr/24hr/48hr/72hr
50 Capture interval A0h 98h P1 00h St. AFh 02 : 10 sec. 60 3 : 30 sec. 04 : 1 min. 05 : 2 min. 06 : 5 min. 70 51 Key Function A0h A0h P1 O0h St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Right/Menu 70 Set R/B Gain A0h A1h P1 P2 St. AFh P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):									00 : 3 sec.
50 Capture interval A0h 98h P1 00h St. AFh 03 : 30 sec. 04 : 1 min. 05 : 2 min. 05 : 2 min. 06 : 5 min. 1 St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Right/Menu P1=01/02:Red Gain/Blue Gain P1=01/02:Red Gain/Blue Gain P1=01/02:Red Gain/Blue Gain P1=01/02:Red Gain/Blue Gain P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):									01 : 5 sec.
Set R/B Gain A0h A1h P1 P2 St. AFh P1 (LowByte)P3(HighByte)=0x100~0xFFF(hex):									02 : 10 sec.
Set R/B Gain A0h A1h P1 P2 St. AFh P3 P3 P3 P3 P3 P3 P3 P	50	Capture interval	A0h	98h	P1	00h	St.	AFh	03 : 30 sec.
Set R/B Gain A0h A1h P1 P2 St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Right P1=01/02:Red Gain/Blue Gain P1=									04 : 1 min.
51 Key Function A0h A0h P1 O0h St. AFh P1=01/02/03/04/05/06=Enter/Up/Down/Left/Right/Menu 52 Set R/B Gain A0h A1h P1 P2 St. AFh P1=01/02:Red Gain/Blue Gain 52 Set R/B Gain A0h A1h P1 P2 St. AFh P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):									05 : 2 min.
St. AFh t/Menu ht/Menu									06 : 5 min.
t/Menu P1=01/02:Red Gain/Blue Gain S2 Set R/B Gain A0h A1h P1 P2 St. AFh P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):	51	Key Function	ΛOb	۸Ob	D1	OOh	C+	ΛEb	P1=01/02/03/04/05/06=Enter/Up/Down/Left/Righ
52 Set R/B Gain A0h A1h P1 P2 St. AFh P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):	J1	Key i diletion	AUII	AUII	LI	0011	٥١.	Aili	t/Menu
									P1=01/02:Red Gain/Blue Gain
ain	52	Set R/B Gain	A0h	A1h	P1	P2	St.	AFh	P2(LowByte)P3(HighByte)=0x100~0xFFF(hex):G
									ain
Send : P1=01/02:Red Gain/Blue Gain									Send: P1=01/02:Red Gain/Blue Gain
53 Call R/B Gain A0h A2h P1 P2 St. AFh Return:	52	Call B/B Gain	ΛOh	۸2h	D1	D2	St.	AFh	Return:
P1(LowByte)P2(HighByte)=0x100~0xFFF(Dec))))	Call N/B Galli	AUII	AZII		PZ		A	P1(LowByte)P2(HighByte)=0x100~0xFFF(Dec):G
ain									ain
54 AF One Push Trigger A0h A3h 01h 00h St. AFh	54	AF One Push Trigger	A0h	A3h	01h	00h	St.	AFh	
55 Set Gamma Mode A0h A7h P1 00h St. AFh P1=00/01/02:Photo/Text/Gray	55	Set Gamma Mode	A0h	A7h	P1	00h	St.	AFh	P1=00/01/02:Photo/Text/Gray
56 Set Image Mode A0h A9h P1 00h St. AFh P1=00/01/02/03:Normal/Slide/Film/Microscop	56	Set Image Mode	A0h	A9h	P1	00h	St.	AFh	P1=00/01/02/03:Normal/Slide/Film/Microscope
57 System ON/OFF A0h B0h P1 00h St. AFh P1=00/01:Off/On	57	System ON/OFF	A0h	B0h	P1	00h	St.	AFh	P1=00/01:Off/On
58 Power A0h B1h P1 00h St. AFh P1=00/01:Off/On	58	Power	A0h	B1h	P1	00h	St.	AFh	P1=00/01:Off/On

Itom	Function	PC AP	to DC1	92 Mas	ter com	mand fo	ormat	Comment
Item	runction	1B	2 B	3B	4B	5B	6B	Comment
59	Capture	A0h	B2h	P1	00h	St.	AFh	P1=00/01:Capture/Record
60	Playback thumbnail	A0h	B3h	P1	00h	St.	AFh	P1=00:Thumbnail
61	Preview rotation	A0h	B4h	P1	00h	St.	AFh	P1=00/01/02/03:Rotate 0/180/Flip/Mirror
62	Delete	A0h	B6h	P1	00h	St.	AFh	P1=00/01/02: Delete one/Delete all/Format
63	call system status	A0h	B7h	P1	P2	St.	AFh	P1(system status)=00/01: not ready/ Read to receive the command P2(Power Status)=00/01:Off/On
64	Lamp On/Off	A0h	C1h	P1	00h	St.	AFh	00 : Lamp + Head Led OFF 01 : Lamp + Head Led ON 02 : Lamp ON 03 : Head Led ON
65	Firmware Upgrade	A0h	CBh	P1	00h	St.	AFh	P1=00/01:osd/no osd
66	Set Audio Microphone Volume	<mark>A0h</mark>	D4h	P1	00h	St.	AFh	P1=0~16(Dec):Volume
67	Call Audio Microphone Volume	<mark>A0h</mark>	<mark>D5h</mark>	P1	P2	<mark>St.</mark>	<mark>AFh</mark>	P1=0~16(Dec):Volume
68	Set Audio Out Volume	A0h	D6h	P1	00h	St.	AFh	P1=0~31(Dec):Volume
69	Call Audio Out Volume	A0h	D7h	P1	P2	St.	AFh	P1=0~31(Dec):Volume

^{**} St : 0 = Action Succeed, 1= NAK (No Action), 2 = Ignore (Command is not in the command list.)