

1. Application Range

This specification applies to the control of 42" Wide Plasma Display Panel (Hereafter, referred to as PDP) with DTE terminal (Personal computer, etc., and hereafter, referred to as PC). Refer to User's Manual for the details of the function.

2. Communication Specification

The control of PDP with PC uses the RS-232C interface. PC sends each control command to PDP, and PDP can execute the function described in the function list. Basically, procedure structure is 'Handshake in which it starts with @G and terminates with @Q'. As a rule, the time-sharing by which the answering from PDP is monitored is used.

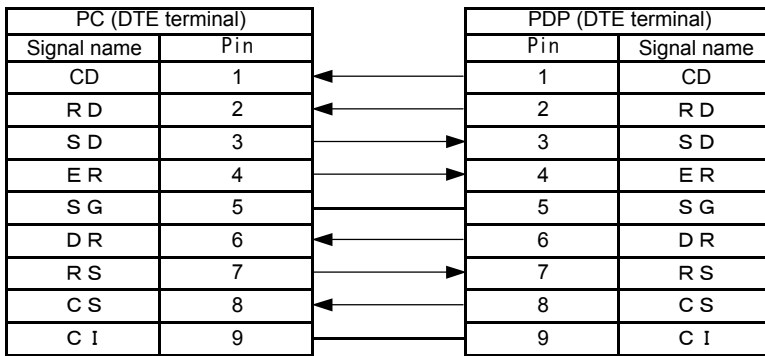
>Communication parameter

Baud rate	4800bps
Data length	8 bits
Parity	None
Stop bit	1 bit
Flow control	RTS/ CTS
Communication code	ASCII code
Reception time out	4 seconds

When status is not returned after sending the command, wait for the time out 4 seconds and send the command again.

3. Connection with PC

When using the DOS/V compatible machine, connect with it by the straight D-SUB 9 pins cable.



4. Communication Procedure

The handshake system is used for the communication between PC and PDP, and the status is returned against the command sending. Moreover, PC sends the communication start command and the communication termination command at the start and termination of the communication. The key of the remote control and the main unit becomes a disabling condition (does not function) because the communication has the priority when the communication starts after the @Q communication mode terminates.

4-1. Control format

The command and the reception status consist of ASCII code, and this specification describes it by the character string.

4-1-1. Communication start command

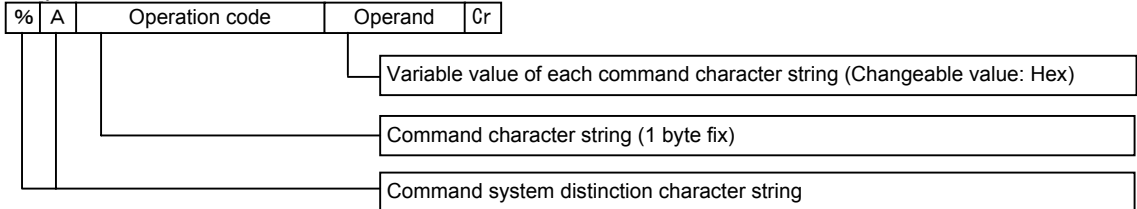
The communication starts.

@ G Cr

When this command is sent a text communication mode start, and the communication command described in 'Function list' in clause 5 can be accepted. Wait for the normal reception status after sending this command. However, resend it even if reception status is not received for 4 seconds. Resend it until returning the normal reception status because irregular data or 'irregular data + reception status' might return after sending the start command. Cr means Carriage Return.

4-1-2. Communication command

Command system



4-1-3. Status

Normal termination

@ S Cr

PDP returns the status to PC after PDP normally execute the command sent by PC.

Normal termination with condition data

@ S DT Cr

PDP sends the operating condition to PC after PC sends the condition reading command. (Refer to 'Function list' in clause 5 for details of a reading command and above-mentioned DT value character string.)

Abnormal termination

@ E ST Cr

PDP sends it to PC if PDP does not normally execute the command sent by PC.

Above-mentioned ST value character string:

- 01: Communication error (For example, the cable is not correctly connected.)
- 02: Setting error (For example, the command is not correctly sent.)
- 03: Function execute error (For example, PDP fails in the execute of the command.)

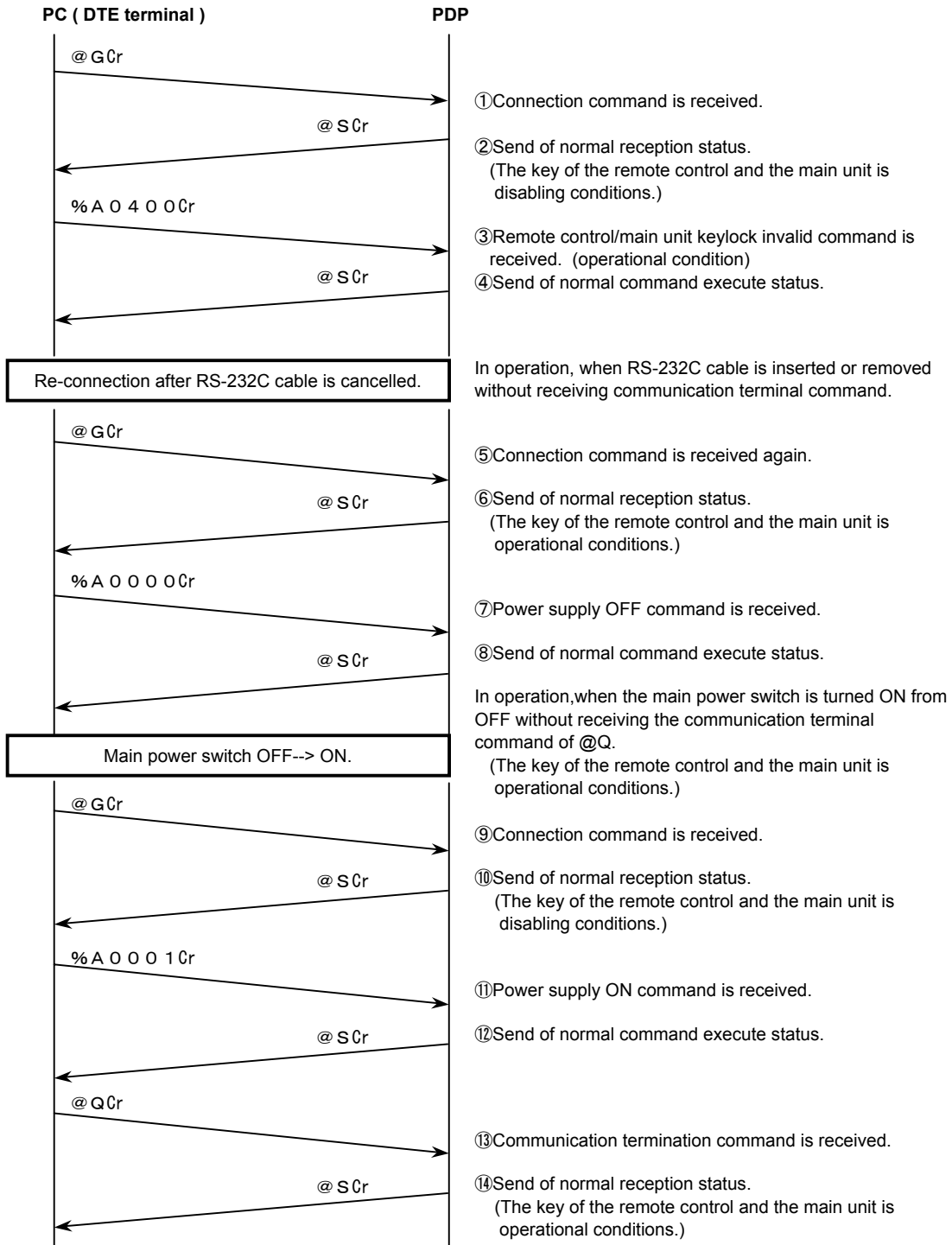
4-1-4. Communication termination command

The communication mode terminates.

@ Q Cr

4-2. Protocol procedure example

The protocol procedure example is as follows.



Communication code(hexadecimal) of protocol procedure example.

@GCr	=40 47 0D	@SCr	=40 53 0D
%A0400Cr	=25 41 30 34 30 30 0D		
%A0000Cr	=25 41 30 30 30 30 0D	%A0001Cr	=25 41 30 30 30 31 0D
@QCr	=40 51 0D		

5. Function List

'Cr' is added at the end of all communication commands. Moreover, variable value means the hex.

And only the command of "Power supply On/Off setting" and "Power supply condition reading"

is controllable by the power supply standby state.

A power supply standby state shows the state of "Power supply condition Off: @S00"

Function	Communication command	P42VHA20ES	Note	
System operation				
01	Power supply ON / OFF setting	Power supply OFF: %A0000	○	
		Power supply ON: %A0001	○	
01	Power supply condition reading	%A0080 【Return Code】 @S00 : Power supply condition OFF @S01 : Power supply condition ON	○	
	On screen automatic display ON / OFF setting	Automatic display OFF: %A0100	○	
02		Automatic display ON: %A0101	○	
	On screen automatic display ON/OFF set condition reading	%A0180 【Return Code】 @S00 : Automatic display condition OFF @S01 : Automatic display condition ON	○	
03	On screen character clear	%A02	○	
04	On screen character display (A specified character is superimposed on the screen)	%A03 <u>00</u> <u>11</u> <u>212</u> <u>33</u> <u>414</u> <u>515</u> <u>00</u> 【Operand0】 The coordinate of horizontal character Setting range: 00 - 1D <u>11</u> 【Operand1】 The coordinate of vertical character Setting range: 00 - 0F <u>212</u> 【Operand2】 Character background color/ Character color Setting range: <u>2</u> Character background color (0 - F) <u>12</u> Character colors (0 - F) <u>33</u> 【Operand3】 The number of characters Setting range: 01 - 0F (15 characters or less) <u>414</u> <u>515</u> 【Operand4】 【Operand5】 Character code Setting range: <u>4</u> Character flashing setting (0: Flashing Off/ 8: Flashing On) <u>14</u> <u>515</u> Character code (000 - 1FF, mainly alphanumeric character) 【Operand4】 and 【Operand5】 are added according to the number of characters of 【Operand3】 . Example) The flashing display of "A" in red color on the black background at coordinate (0.0) is %A03000004018041. Note) - Pay attention to the screen burn-in by the fixed display for a long time. - The display of this function is cleared by the OSD display with the key of remote control and the main unit (including communication control).	○	Refer to supplement 6-1 for details of the coordinate. Refer to supplement 6-2 for details of the color number. Refer to CHART. for details of the character-code.

Function		Communication command	P42VHA20ES	Note
05	Setting of remote control/ main unit keylock function	Remote control keylock is invalid and main unit keylock is invalid. : %A0400	○	Note) When the communication is started again after the termination of the communication, the remote control key and the main unit key become a disabling condition (does not function) for the priority of the communication.
		Remote control keylock is invalid and main unit keylock is valid. : %A0401	○	
		Remote control keylock is valid and main unit keylock is invalid.: %A0402	○	
		Remote control keylock is valid and main unit keylock is valid.: %A0403	○	
	Confirmation of remote control/ main unit keylock setting	%A0480 【Return Code】 @S00 : Remote control keylock invalid / Main unit keylock invalid. @S01 : Remote control keylock invalid / Main unit keylock valid. @S02 : Remote control keylock valid / Main unit keylock invalid. @S03 : Remote control keylock valid / Main unit keylock valid.	○	
06	Initialization of user adjustable value	%A05	○	FACTORY DEFAULT
Video adjustment				
07	Video input selection	RGB_D-SUB input: %A1000	○ (RGB2)	
		RGB_BNC input: %A1001	○ (RGB3)	
		DVI input: %A1002	○ (RGB1)	
		VIDEO_RCA or BNC input: %A1010	○ (VIDEO4)	
		VIDEO_RCA or D input: %A1011	○ (VIDEO3)	
		VIDEO_RCA or BNC or SCART(When P-TE1000E is installed.) input: %A1012	○ (VIDEO1)	
		VIDEO_Mini-DIN S-Video input: %A1014	○ (VIDEO2)	
	Video input select condition reading	%A1080 【Return Code】 @S00 : RGB_D-SUB input @S01 : RGB_BNC input @S02 : DVI input @S10 : VIDEO_RCA or BNC input @S11 : VIDEO_RCA or D input @S12 : VIDEO_RCA or BNC or SCART input @S14 : VIDEO_Mini-DIN S-Video input	○	
08	Display aspect selection	NORMAL: %A1100	○	The display aspect conditions which can be chosen are referred to supplementary 6-3.
		WIDE1: %A1101	○	
		WIDE2: %A1102	○	
		ZOOM1: %A1103	○	
		ZOOM2: %A1104	○	
		Auto: %A1108	○	
		Display aspect selectcondition reading	%A1180 【Return Code】 @S00 : NORMAL @S01 : WIDE1 @S02 : WIDE2 @S03 : ZOOM1 @S04 : ZOOM2 @S08~@S0F : Auto	○

Function	Communication command	P42VHA20ES	Note
09 Video system setting	%A12 <u>S</u> <u>V</u>		
	<u>V</u> 【VIDEO(Video1) input】		
	0: NTSC (60Hz)	○	
	1: PAL60 (60Hz)	○	
	2: 4.43NTSC (60Hz)	○	
	3: M-PAL (60Hz)	○	
	4: PAL (50Hz)	○	
	5: N-PAL (50Hz)	○	
	6: SECAM (50Hz)	○	
	8: AUTO	○	
	<u>S</u> 【S-VIDEO(Video2) input】		
	0: NTSC (60Hz)	○	
	1: PAL60 (60Hz)	○	
	2: 4.43NTSC (60Hz)	○	
	3: M-PAL (60Hz)	○	
	4: PAL (50Hz)	○	
5: N-PAL (50Hz)	○		
6: SECAM (50Hz)	○		
8: AUTO	○		
10 Contrast	%A130062~%A13009E (Reference value: %A130080)	○	PDP adjustable range:-30~+30
10 Contrast condition reading	%A1380 【Return Code】 @S62~@S9E	○	
11 Brightness	%A130144~%A1301BC (Reference value: %A130180)	○	PDP adjustable range:-60~+60
11 Brightness condition reading	%A1381 【Return Code】 @S44~@SBC	○	
12 Color	%A130244~%A1302BC (Reference value: %A130280)	○	PDP adjustable range:-60~+60
12 Color condition reading	%A1382 【Return Code】 @S44~@SBC	○	
13 Tint	【When RGB is selected】 %A130344~%A1303BC (Reference value: %A130380)	○	PDP adjustable range:-60~+60
	【other than RGB】 %A130362~%A13039E (Reference value: %A130380)	○	PDP adjustable range:-30~+30
	%A1383 【Return Code】 @S62~@S9E : When Video or S-video is selected @S44~@SBC : When RGB, C-Video is selected	○	
14 Sharpness	【When RGB is selected】 %A13047C~%A130484 (Reference value: %A130480)	○	PDP adjustable range:-4~+4
	【other than RGB】 %A130470~%A130490 (Reference value: %A130480)	○	PDP adjustable range:-16~+16
	%A1384 【Return Code】 @S70~@S90 : When except RGB is selected @S7C~@S84 :When RGB is selected	○	
15 Noise reduction (Only Video mode)	OFF: %A130500	○	IP is available.Applicable only when signal is received.
	Min: %A130501	○	
	Std: %A130502	○	
	Max: %A130503	○	
	%A1385 【Return Code】 @S00 : OFF @S01 : Min @S02 : Std @S03 : Max	○	

Function		Communication command	P42VHA20ES	Note
16	Color temperature	-3500K: %A130600	○	In each 500K
		Standard: %A130607	○	
		+3500K: %A13060E	○	
		User: %A130680	○	
	Color temperature condition reading	%A1386 【Return Code】 @S00 : -3500K @S07 : Standard @S0E : +3500K @S80 : User	○	
17	User Color temperature (R)	%A130700~%A1307FF	○	PDP adjustable range: 0~255
	User Color temperature (R) condition reading	%A1387 【Return Code】 @S00~@SFF	○	
18	User Color temperature(G)	%A130800~%A1308FF	○	PDP adjustable range: 0~255
	User Color temperature (G) condition reading	%A1388 【Return Code】 @S00~@SFF	○	
19	User Color temperature(B)	%A130900~%A1309FF	○	PDP adjustable range: 0~255
	User Color temperature (B) condition reading	%A1389 【Return Code】 @S00~@SFF	○	
20	Dot clock (Only RGB<except DVI>)	%A130A44~%A130ABC (Reference value: %A130A80)	○	PDP adjustable range:-60~+60
	Dot clock condition reading	%A138A 【Return Code】 @S44~@SBC	○	
21	Clock phase (Only RGB<except DVI>)	%A130B00~%A130B1F Automatic adjustment: %A130B80	○ ○	PDP adjustable range:1~32
	Clock phase condition reading	%A138B 【Return Code】 @S00~@S1F When automatic adjustment, it is @S80 - @S9F.	○	
22	Clamp pulse position (Only RGB and Comp.Video<except DVI>).	%A130D78~%A130D88 (Reference value: %A130D80)	○	PDP adjustable range:-8~+8
	Clamp pulse position condition reading	%A138D 【Return Code】 @S78~@S88	○	

Function		Communication command	P42VHA20ES	Note
23	Picture mode setting	%A130F00	○ Dynamic	
		%A130F01	○ Fine	
		%A130F02	○ Real1	
		%A130F03	○ Real2	
		%A130F04	○ Static	
	Picture mode setting Condition reading	%A138F 【Return Code】 @S00 ~ @S04 : (Code details are referring to [which is a Picture mode setting command] the lower 2 figure.)	○	
24	24 Frame mode (Only Video mode)	OFF: %A131100	○	
		ON: %A131101	○	
	24 Frame mode Condition reading	%A1391 【Return Code】 @S00 : OFF @S01 : ON	○	
25	Auto calibration (Only RGB<except DVI>)	Execute (excute): %A131200	○	
		Original (Factory shipping value): %A131201	○	
26	Luminance	%A131308~%A131314	○ (when the Picture Mode is Fine)	PDP adjustable range: 40 ~100%
	Luminance condition reading	%A1393 【Return Code】 @S08~@S14	○	
27	Black Level	%A131471~%A13148F (Reference value: %A131480)	○ (when the Picture Mode is Fine)	PDP adjustable range:-15~+15
	Black Level condition reading	%A1394 【Return Code】 @S71~@S8F	○	

Function		Communication command	P42VHA20ES	Note
28	Video horizontal position setting	【When RGB_PC is selected.】 %A1400****~%A1400**** (Reference value: %A14000800)	076A~0896 (-150~+150)	Mentioned **** shows the adjustment range.
		【When SDTV, 525P, or 625P is selected.】 %A1400****~%A1400**** (Reference value: %A14000800)	07F0~0810 (-16~+16)	
		【When 720P or HDTV is selected.】 %A1400****~%A1400**** (Reference value: %A14000800)	07E0~0820 (-32~+32)	
		【When NTSC,PAL,SECAM is selected.】 %A1400****~%A1400**** (Reference value: %A14000800)	07E2~081E (-30~+30)	
	Video horizontal position condition reading	%A1480 【Return Code】 @S**** ~ @S****	076A~0896	The inside of () is a remote control adjustment value.
29	Video vertical position setting	【When RGB_PC is selected.】 %A1401****~%A1401**** (Reference value: %A14010800)	076A~0896 (-150~+150)	Mentioned **** shows the adjustment range.
		【When SDTV, 525P, or 625P is selected.】 %A1401****~%A1401**** (Reference value: %A14010800)	07F0~0810 (-16~+16)	
		【When 720P or HDTV is selected.】 %A1401****~%A1401**** (Reference value: %A14010800)	07E0~0820 (-32~+32)	
		【When NTSC,PAL,SECAM and screen size Normal, Wide is selected.】 %A1401****~%A1401**** (Reference value: %A14010800)	07F9~0807 (-7~+7)	
		【When NTSC,PAL,SECAM and screen size Zoom is selected.】 %A1401****~%A1401**** (Reference value: %A14010800)	07F1~080F (-15~+15)	
	Video vertical position condition reading	%A1481 【Return Code】 @S**** ~ @S****	076A~0896	The inside of () is a remote control adjustment value.
30	Video horizontal width setting	【When RGB_PC is selected.】 %A1402** ~ %A1402** (Reference value: %A140280)	67~B2 (-25~+50)	Mentioned ** shows the adjustment range.
		【When SDTV, 525P, 625P, 720P or HDTV is selected.】 %A1402** ~ %A1402** (Reference value: %A140280)	7C~94 (-4~+20)	
		【When NTSC,PAL,SECAM is selected.】 %A1402** ~ %A1402** (Reference value: %A140280)	79~90 (-7~+16)	
	The video horizontal width condition reading	%A1482 【Return Code】 @S** ~ @S**	67~B2	The inside of () is a remote control adjustment value.
31	Video vertical height setting	【When RGB_PC is selected.】 %A1403** ~ %A1403** (Reference value: %A140380)	67~B2 (-25~+50)	Mentioned ** shows the adjustment range.
		【When SDTV, 525P, 625P, 720P or HDTV is selected.】 %A1403** ~ %A1403** (Reference value: %A140380)	7C~94 (-4~+20)	
		【When NTSC,PAL,SECAM is selected.】 %A1403** ~ %A1403** (Reference value: %A140380)	79~90 (-7~+16)	
	Video vertical height condition reading	%A1483 【Return Code】 @S** ~ @S**	67~B2	The inside of () is a remote control adjustment value.
32	Picture memory setting	【Picture setting SAVE】 %A150000~%A150007 (Memory1~8)	○	
		【Picture setting LOAD】 %A150100~%A150107 (Memory1~8)	○	

Function		Communication command	P42VHA20ES	Note
Audio				
33	Audio input setting RGB_D-SUB (Audio Input)	【No audio】 %A200000	○ (RGB2)	
		【Audio input 1】 %A200001	○ (RGB2)	
		【Audio input 2】 %A200002	○ (RGB2)	
		【Audio input 3】 %A200003	○ (RGB2)	
	Audio input setting condition reading RGB_D-SUB	%A200080 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (RGB2)	
34	Audio input setting RGB_BNC (Audio Input)	【No audio】 %A200100	○ (RGB3)	
		【Audio input 1】 %A200101	○ (RGB3)	
		【Audio input 2】 %A200102	○ (RGB3)	
		【Audio input 3】 %A200103	○ (RGB3)	
	Audio input setting condition reading RGB_BNC	%A200180 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (RGB3)	
35	Audio input setting DVI (Audio Input)	【No audio】 %A200200	○ (RGB1)	
		【Audio input 1】 %A200201	○ (RGB1)	
		【Audio input 2】 %A200202	○ (RGB1)	
		【Audio input 3】 %A200203	○ (RGB1)	
	Audio input setting condition reading DVI	%A200280 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (RGB1)	
36	Audio input setting VIDEO_RCA or BNC (Audio Input)	【No audio】 %A200300	○ (VIDEO4)	
		【Audio input 1】 %A200301	○ (VIDEO4)	
		【Audio input 2】 %A200302	○ (VIDEO4)	
		【Audio input 3】 %A200303	○ (VIDEO4)	
	Audio input setting condition reading VIDEO_RCA or BNC	%A200380 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (VIDEO4)	
37	Audio input setting VIDEO_RCA or D (Audio Input)	【No audio】 %A200400	○ (VIDEO3)	
		【Audio input 1】 %A200401	○ (VIDEO3)	
		【Audio input 2】 %A200402	○ (VIDEO3)	
		【Audio input 3】 %A200403	○ (VIDEO3)	
	Audio input setting condition reading VIDEO_RCA or D	%A200480 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (VIDEO3)	

Function		Communication command	P42VHA20ES	Note
38	Audio input setting VIDEO_RCA or BNC (Audio Input)	【No audio】 %A200500	○ (VIDEO1)	
		【Audio input 1】 %A200501	○ (VIDEO1)	
		【Audio input 2】 %A200502	○ (VIDEO1)	
		【Audio input 3】 %A200503	○ (VIDEO1)	
		【Audio input 4】 %A200504	○ (VIDEO1)	When P-TE1000E is installed.
	Audio input setting condition reading VIDEO_RCA or BNC	%A200580 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3 @S04 : Audio input 4	○ (VIDEO1)	
39	Audio input setting VIDEO_Mini-DIN S-Video (Audio Input)	【No audio】 %A200600	○ (VIDEO2)	
		【Audio input 1】 %A200601	○ (VIDEO2)	
		【Audio input 2】 %A200602	○ (VIDEO2)	
		【Audio input 3】 %A200603	○ (VIDEO2)	
		Audio input setting condition reading VIDEO_Mini-DIN S-Video	%A200680 【Return Code】 @S00 : No audio @S01 : Audio input 1 @S02 : Audio input 2 @S03 : Audio input 3	○ (VIDEO2)
40	Volume setting	【Audio mute OFF】 %A2200 (Volume Low) ~ %A2228 (Volume High)	○	PDP adjustable range: 0 ~ 40
		【Audio mute ON】 %A2240	○	
	Volume setting condition reading	%A2280 【Return Code】 @S00 (Volume Low) ~ @S28 (Volume High) @S40~@S68 : Audio mute	○	
41	Tone balance setting	【Balance】 %A23006 (Left) ~ %A2301A (Right) (Reference value:%A23010)	○	PDP adjustable range: -10~+10
		【Bass】 %A2310A (Down) ~ %A23116 (Up) (Reference value:%A23110)	○	PDP adjustable range: -6~+6
		【Treble】 %A220A (Down) ~ %A23216 (Up) (Reference value:%A23210)	○	PDP adjustable range: -6~+6
		【Loudness】 %A23300 (OFF) %A23301 (ON)	○	
		Tone balance setting condition reading	%A2380 【Return Code】 @S06 (Left) ~ @S1A (Right) : Balance	○
		%A2381 【Return Code】 @S0A (Down) ~ @S16 (UP) : Bass	○	
		%A2382 【Return Code】 @S0A (Down) ~ @S16 (UP) : Treble	○	
		%A2383 【Return Code】 @S00: Loudness OFF @S01: Loudness ON	○	

Function	Communication command	P42VHA20ES	Note	
Extended features				
42	Language selection	%A310100	○ Japanese	
		%A310101	○ English	
		%A310102	○ German	
		%A310103	○ Spanish	
		%A310104	○ French	
		%A310105	○ Italian	
		%A310106	○ Portuguese	
		%A310107	○ Russia	
	Language select condition reading	%A3181 【Return Code】 @S00 ~ @S07 : Japanese, English, German, Spanish, French, Italian, Portuguese, Russia(Only E model) (Code details are referring to [which is a Language selection command] the lower 2 figure.)	○	
43	DPMS setting	DPMS OFF: %A310200	○	Except DVI
		Black background. 1 minute: %A310201	○	
		Black background. 15 minutes: %A310202	○	
		Black background. 45 minutes: %A310203	○	
		Black background. 60 minutes: %A310204	○	
		White background. 1 minute: %A310281	○	
		White background. 15 minutes: %A310282	○	
		White background. 45 minutes: %A310283	○	
		White background. 60 minutes: %A310284	○	
		DPMS setting condition reading	%A3182 【Return Code】 @S00: DPMS Off @S01: Black background. 1 minute. @S02: Black background. 15 minutes. @S03: Black background. 45 minutes. @S04: Black background. 60 minutes. @S81: White background. 1 minute. @S82: White background. 15 minutes. @S83: White background. 45 minutes. @S84: White background. 60 minutes.	
44	White screen display	White screen display OFF: %A310300	○	
		White screen display ON: %A310301	○	
	White screen display condition reading	%A3183 【Return Code】 @S00 : White screen display OFF @S01 : White screen display ON	○	

Function	Communication command	P42VHA20ES	Note
45	Screen orbiter OFF: %A310401	○	
	Minimum turn at constant intervals: %A310410	○	About 5dots orbiter
	Standard turn at constant intervals: %A310411	○	About 10dots orbiter
	Maximum turn at constant intervals: %A310412	○	About 15dots orbiter
	Minimum turn at each mode change: %A310420	○	About 5dots orbiter
	Standard turn at each mode change: %A310421	○	About 10dots orbiter
	Maximum turn at each mode change: %A310422	○	About 15dots orbiter
Screen orbiter setting (Only RGB)			
Screen orbiter condition reading	%A3184 【Return Code】 @S01: Screen orbiter OFF @S10: Minimum turn at constant intervals @S11: Standard turn at constant intervals @S12: Maximum turn at constant intervals @S20: Minimum turn at each mode change @S21: Standard turn at each mode change @S22: Maximum turn at each mode change	○	
46	Input priority		
	OFF: %A310500	×	
	RGB1: %A310502	×	
	RGB2: %A310503	×	
	VIDEO1: %A310504	×	
	VIDEO2: %A310505	×	
	VIDEO3: %A310506	×	
VIDEO4: %A310507	×		
Input priority condition reading	%A3185 【Return Code】 @S00 : OFF @S02 : RGB1 @S03 : RGB2 @S04 : VIDEO1 @S05 : VIDEO2 @S06 : VIDEO3 @S07 : VIDEO4	×	
47	Monitor number setting		
	OFF: %A310600	×	
	1: %A310601	×	
	2: %A310602	×	
	3: %A310603	×	
4: %A310604	×		
Monitor number setting condition reading	%A3186 【Return Code】 @S00 : OFF @S01 : 1 @S02 : 2 @S03 : 3 @S04 : 4	×	

Function		Communication command	P42VHA20ES	Note
48	Code setting (RGB only)	AUTO : %A310780	○	Except DVI The code numbers which can be chosen are referred to supplementary 6-3.
		Manual RGB parameter code: %A310700~%A310734	○	
	Code setting condition reading	%A3187 【Return Code】 @S80~@SAA : AUTO @S00~@S34 : Manual RGB parameter code	○	
49	Direct setting (Only RGB)	AUTO: %A310800	○	
		VGA: %A310801	○	
		WVGA: %A310802	○	
		XGA: %A310804	○	
		WXGA: %A310805	○	
		SXGA: %A310806	○	
		SXGA+: %A310807	○	
		480P: %A310803	○	
		Direct set condition reading (Only RGB)	%A3188 【Return Code】 @S00 : AUTO @S01 : VGA @S02 : WVGA @S04 : XGA @S05 : WXGA @S06 : SXGA @S07 : SXGA+ @S03 : 480P	○
	50	Installation setting	Horizontal (Horizontal putting) : %A310900	×
Vertical (+90Deg.Vertical putting) : %A310901			×	The remote control receiver is put at the lower position.
Vertical (-90Deg.Vertical putting) : %A310902			×	The remote control receiver is put at the upper position.
Installation set condition reading		%A3189 【Return Code】 @S00 : Horizontal (Horizontal putting) @S01 : Vertical (+90Deg.Vertical putting) @S02 : Vertical (-90Deg.Vertical putting)	×	

Function	Communication command	P42VHA20ES	Note	
51 BNC input setting (BNC Input)	RGB-PC (Mask_OFF): %A310A00	○		
	Decorder (Mask_OFF): %A310A10	○		
	Decorder (Mask_5dots): %A310A11	○		
	Decorder (Mask_10dots): %A310A12	○		
	Decorder (Mask_15dots): %A310A13	○		
	C-Video (Mask_OFF): %A310A20	○		
	C-Video (Mask_5dots): %A310A21	○		
	C-Video (Mask_10dots): %A310A22	○		
	C-Video (Mask_15dots): %A310A23	○		
	RGB-Video (Mask_OFF): %A310A30	○		
	RGB-Video (Mask_5dots): %A310A31	○		
	RGB-Video (Mask_10dots): %A310A32	○		
	RGB-Video (Mask_15dots): %A310A33	○		
	BNC input setting condition reading	%A318A 【Return Code】 @S00 : RGB-PC_Mask_OFF @S10 : Decorder_Mask_OFF @S11 : Decorder_Mask_5dots @S12 : Decorder_Mask_10dots @S13 : Decorder_Mask_15dots @S20 : C-VIDEO_Mask_OFF @S21 : C-VIDEO_Mask_5dots @S22 : C-VIDEO_Mask_10dots @S23 : C-VIDEO_Mask_15dots @S30 : RGB-VIDEO_Mask_OFF @S31 : RGB-VIDEO_Mask_5dots @S32 : RGB-VIDEO_Mask_10dots @S33 : RGB-VIDEO_Mask_15dots	○	
	52 RGB D-SUB input setting (D-SUB input)	RGB-PC (Mask_OFF): %A310B00	○	
Decorder (Mask_OFF): %A310B10		○		
Decorder (Mask_5dots): %A310B11		○		
Decorder (Mask_10dots): %A310B12		○		
Decorder (Mask_15dots): %A310B13		○		
RGB D-SUB input setting condition reading		%A318B 【Return Code】 @S00 : RGB-PC_Mask_OFF @S10 : Decorder_Mask_OFF @S11 : Decorder_Mask_5dots @S12 : Decorder_Mask_10dots @S13 : Decorder_Mask_15dots	○	

Function		Communication command	P42VHA20ES	Note		
53	Exhibition mode setting	OFF: %A310C00	○			
		ON: %A310C01	○			
	Exhibition mode settingcondition reading	%A318C 【Return Code】 @S00 : OFF @S01 : ON	○			
SCART input setting (When P-TE1000E is installed.)		Video (Mask_OFF): %A310D00	○			
		Video (Mask_5dots): %A310D01	○			
		Video (Mask_10dots): %A310D02	○			
		Video (Mask_15dots): %A310D03	○			
		S-Video (Mask_OFF): %A310D10	○			
		S-Video (Mask_5dots): %A310D11	○			
		S-Video (Mask_10dots): %A310D12	○			
		S-Video (Mask_15dots): %A310D13	○			
		RGB (Mask_OFF): %A310D20	○			
		RGB (Mask_5dots): %A310D21	○			
		RGB (Mask_10dots): %A310D22	○			
		RGB (Mask_15dots): %A310D23	○			
		SCART input setting condition reading		%A318A	○	
				【Return Code】 @S00 : Video_Mask_OFF @S01 : Video_Mask_5dots @S02 : Video_Mask_10dots @S03 : Video_Mask_15dots @S10 : S-VIDEO_Mask_OFF @S11 : S-VIDEO_Mask_5dots @S12 : S-VIDEO_Mask_10dots @S13 : S-VIDEO_Mask_15dots @S20 : RGB_Mask_OFF @S21 : RGB_Mask_5dots @S22 : RGB_Mask_10dots @S23 : RGB_Mask_15dots		

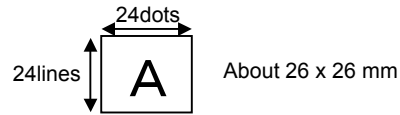
Function		Communication command	P42VHA20ES	Note		
55	DVIinput setting (DVI input)	DVI1入力: %A310E00	○			
		DVI2入力: %A310E01	○			
	DVI input setting condition reading	%A318C 【Return Code】 @S00 : DVI1入力 @S01 : DVI2入力	○			
56	Selection of indications (Name select) (RGB input)	%A31 <u>R</u> <u>R</u> <u>I</u> <u>I</u>		On screen menu		
		<u>I</u> <u>I</u> 【Indication】				
		00: RGB1 - RGB2 (Default value)	○			
		01: PC1	○			
		02: PC2	○			
		03: DVD1	○			
		04: DVD2	○			
		05: STB	○			
		06: Satellite	○			
		07: CableTV	○			
	<u>R</u> <u>R</u> 【RGB input】					
	10:RGB1	○				
	11:RGB2	○				
	%A3190 (RGB1) %A3191 (RGB2) 【Return Code】 @S00 : RGB1 or RGB2 (Default value) @S01 : PC1 @S02 : PC2 @S03 : DVD1 @S04 : DVD2 @S05 : STB @S06 : Satellite @S07 : CableTV	○				
57	Selection of indications (Name select) (Video input)	%A31 <u>V</u> <u>V</u> <u>I</u> <u>I</u>		On screen menu		
		<u>I</u> <u>I</u> 【Indication】				
		00: Video1 - Video4 (Default value)	○			
		01: DVD1	○			
		02: DVD2	○			
		03: VCR1	○			
		04: VCR2	○			
		05: GAME	○			
		06: Camcorder	○			
		07: STB	○			
		08: Satellite	○			
		09: CableTV	○			
			<u>V</u> <u>V</u> 【VIDEO input】			
			13:Video1		○	
			14:Video2		○	
			15:Video3		○	
	16:Video4	○				
	%A3193 (Video1) %A3194 (Video2) %A3195 (Video3) %A3196 (Video4) 【Return Code】 @S00 : Video1 - Video4 (Default value) @S01 : DVD1 @S02 : DVD2 @S03 : VCR1 @S04 : VCR2 @S05 : GAME @S06 : Camcorder @S07 : STB @S08 : Satellite @S07 : CableTV	○				

Function	Communication command	P42VHA20ES	Note
REMOTE CONTROL CODE			It does not function when remote control is prohibited.
58 Power turns On/Off	%A3200	x	
59 Power On	%A3201	x	
60 Power Off	%A3202	x	
61 Input toggle	%A3203	x	
62 Video input toggle	%A3205	x	
53 Video1	%A3206	x	
54 RGB input toggle	%A3208	x	
65 RGB1	%A3209	x	
66 RGB2	%A320A	x	
67 Video2	%A320B	x	
68 Volume up	%A3220	x	
69 Volume down	%A3221	x	
70 Mute ON/OFF	%A3222	x	
71 Mute ON	%A3223	x	
72 Mute OFF	%A3224	x	
73 Menu cursor ←	%A323E	x	
74 Menu cursor →	%A323F	x	
75 Menu button	%A3240	x	
76 Menu cursor ↑	%A3241	x	
77 Menu cursor ↓	%A3242	x	
78 Enter	%A325B	x	
79 Aspect toggle	%A3280	x	
80 Aspect Auto	%A3281	x	
81 Aspect Normal	%A3282	x	
82 Aspect Wide 1	%A3283	x	
83 Aspect Wide 2	%A3284	x	
84 Aspect Zoom 1	%A3285	x	
85 Aspect Zoom 2	%A3286	x	
86 Power turns On/Off	%A328A00	○	
87 Audio Mute On/Off	%A328C12	○	
88 OSD Display On/Off	%A328A08	○	
89 Picture Mode	%A328A44	○	
90 Picture Memory	%A328A48	○	
91 Wide button	%A328A10	○	
92 RGB1	%A328B68	○	
93 RGB2	%A328B69	○	
94 RGB3 or Video4	%A328B6A	○	
95 Video1	%A328B40	○	
96 Video2	%A328B41	○	
97 Video3	%A328B42	○	
98 Volume up	%A328C10	○	
99 Volume down	%A328C11	○	
100 Menu button	%A328A22	○	
101 Menu cursor ↑	%A328A23	○	
102 Menu cursor ←	%A328A20	○	
103 Menu cursor →	%A328A21	○	
104 Menu cursor ↓	%A328A24	○	
105 Enter	%A328A26	○	

6. Supplement

6-1. Details of display coordinate of on screen character

【Size of character】



【Range of display and number of characters】



Origin of coordinates of range of display:

Upper left of the range of display of left figure

(Installation condition: 95 mm in horizontal and 20 mm in vertical from upper left of screen)

The number of character in horizontal direction: 30 characters

(There are 15 characters which can be displayed at once.)

The number of character in vertical direction: 15 characters

Note)

The position of the origin of coordinates of display range is just a guide.

(Showing actual value from the panel display starting position.)

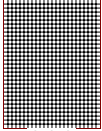
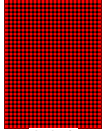
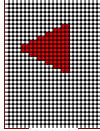
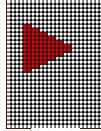
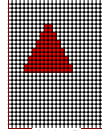
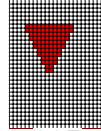
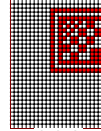
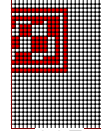
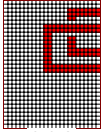
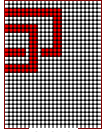

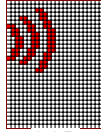

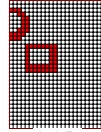
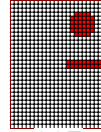
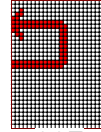
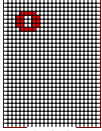
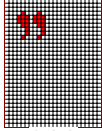
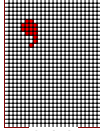
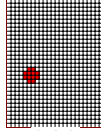
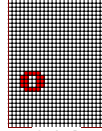
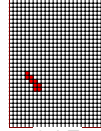
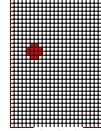
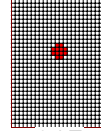
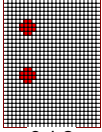
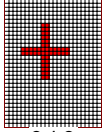
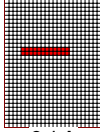
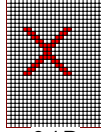
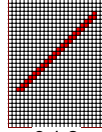
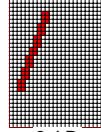
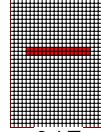
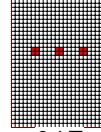
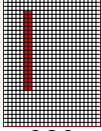
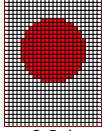
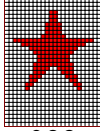
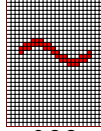
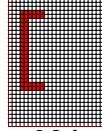
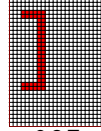
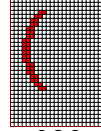
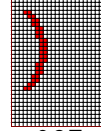
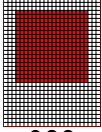
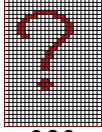
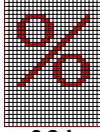
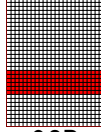
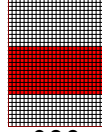
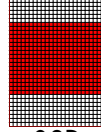
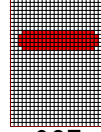
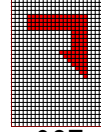
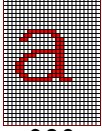
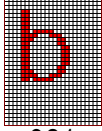
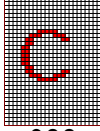
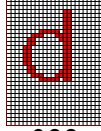
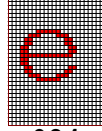
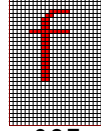
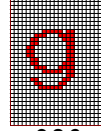
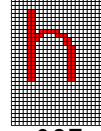
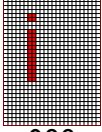
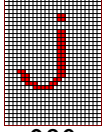
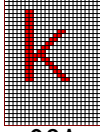
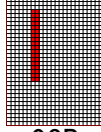
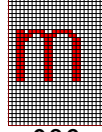
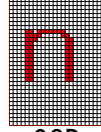
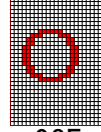
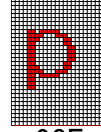
6-2. Details of display color number of on screen character

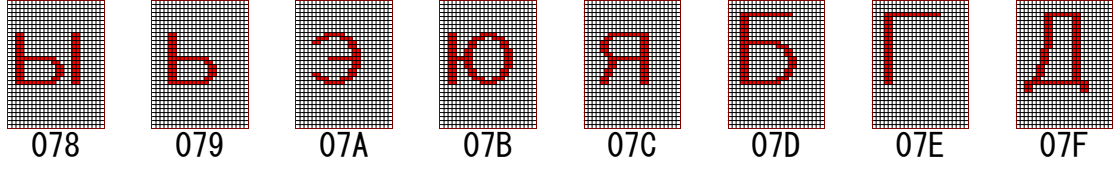
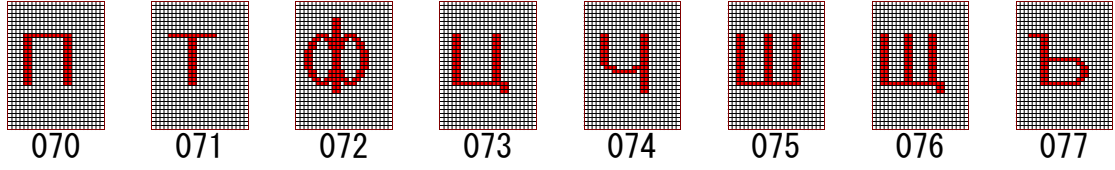
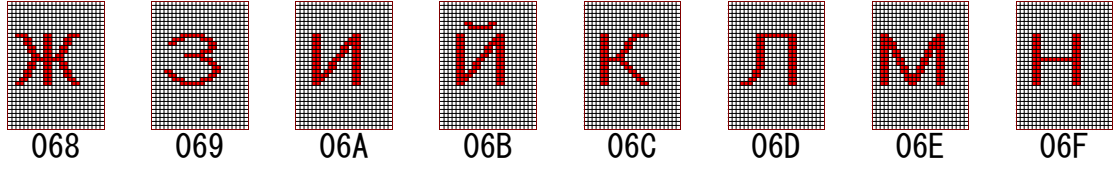
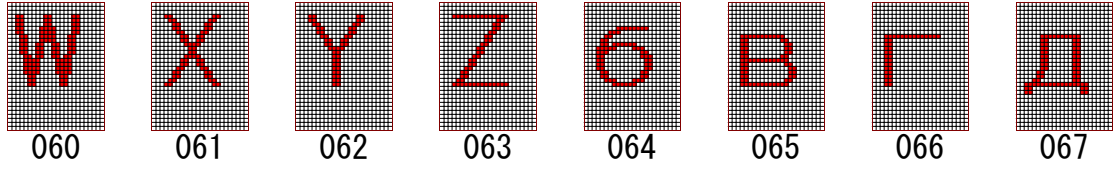
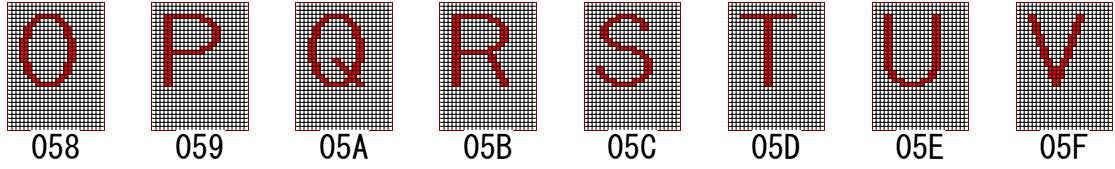
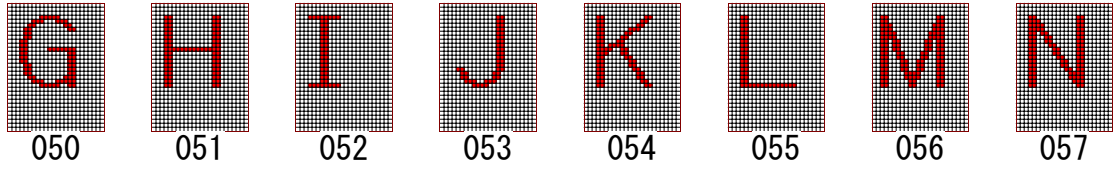
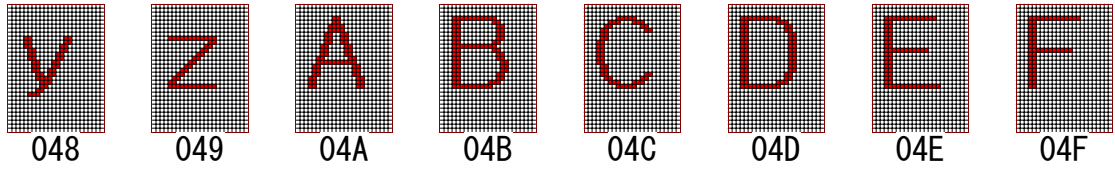
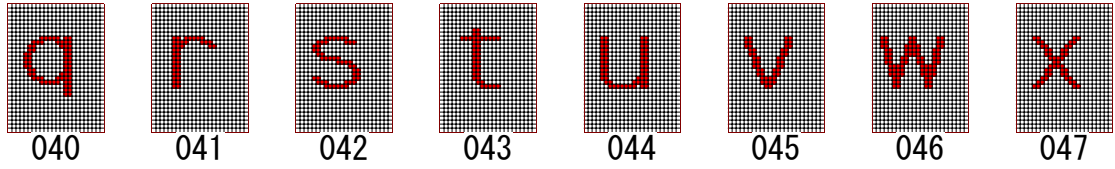
Color number	Color of screen	Color number	Color of screen
0	Black	8	
1	Blue	9	Light Blue
2	Green	A	Light Green
3	Cyan	B	Light Cyan
4	Red	C	Light Red
5	Magenta	D	Light Magenta
6	Brown	E	Yellow
7	White	F	White(high intensity)

6-3. The display aspect which can be chosen

Display image			(Correspondence image input mode)	The display aspect	RGB ParameterCODE
NTSC			(VIDEO1,VIDEO2)	NORMAL	
PAL/SECAM			(VIDEO1,VIDEO2)	AUTO	
480P			(VIDEO3)	WIDE1	06h
576P			(VIDEO3)	WIDE2	07h
SDTV	480i	60Hz	(VIDEO3)	ZOOM1	1Fh
SDTV	576i	50Hz	(VIDEO3)	ZOOM2	20h
480P			(VIDEO4,RGB2,RGB3)	NORMAL	06h
576P			(VIDEO4,RGB2,RGB3)	WIDE1	07h
SDTV	480i	60Hz	(VIDEO4,RGB2,RGB3)	WIDE2	1Fh
SDTV	576i	50Hz	(VIDEO4,RGB2,RGB3)	ZOOM1	20h
				ZOOM2	
HDTV	1920x1080i	60Hz	(VIDEO4,VIDEO3,RGB1,RGB2,RGB3)	WIDE	02h
HDTV	1920x1080i	50Hz	(VIDEO4,VIDEO3,RGB1,RGB2,RGB3)		03h
720P	1280x720P	60Hz	(VIDEO4,VIDEO3,RGB1,RGB2,RGB3)		04h
720P	1280x720P	50Hz	(VIDEO4,VIDEO3,RGB1,RGB2,RGB3)		05h
WIDE	1360x768	60Hz	(RGB1,RGB2,RGB3)		21h
WIDE	852x480	60Hz	(RGB1,RGB2,RGB3)		24h
WIDE	848x480	60Hz	(RGB1,RGB2,RGB3)		25h
UXGA	1600x1200	85Hz	(RGB2,RGB3)	NORMAL WIDE ZOOM WIDE=WIDE2 ZOOM=ZOOM1	08h
UXGA	1600x1200	60Hz	(RGB2,RGB3)		0Ah
SXGA	1280x1024	75Hz	(RGB1,RGB2,RGB3)		0Dh
SXGA	1280x1024	60Hz	(RGB1,RGB2,RGB3)		0Eh
XGA	1024x768	85Hz	(RGB2,RGB3)		10h
XGA	1024x768	75Hz	(RGB1,RGB2,RGB3)		11h
XGA	1024x768	60Hz	(RGB1,RGB2,RGB3)		12h
SVGA	800x600	85Hz	(RGB2,RGB3)		13h
SVGA	800x600	75Hz	(RGB1,RGB2,RGB3)		14h
SVGA	800x600	60Hz	(RGB1,RGB2,RGB3)		15h
VGA	640x480	85Hz	(RGB2,RGB3)		16h
VGA	640x480	75Hz	(RGB1,RGB2,RGB3)		17h
VGA	640x480	60Hz	(RGB1,RGB2,RGB3)		18h

CHART. Details of display character code of on screen character.

							
000	001	002	003	004	005	006	007
							
008	009	00A	00B	00C	00D	00E	00F
							
010	011	012	013	014	015	016	017
							
018	019	01A	01B	01C	01D	01E	01F
							
020	021	022	023	024	025	026	027
							
028	029	02A	02B	02C	02D	02E	02F
							
030	031	032	033	034	035	036	037
							
038	039	03A	03B	03C	03D	03E	03F



Ж 3 И Й К Л П У
080 081 082 083 084 085 086 087

Ф Ц Ч Ш Щ Ъ Ы Ь
088 089 08A 08B 08C 08D 08E 08F

Э Ю Я à á â ã ä
090 091 092 093 094 095 096 097

å ç è é ê ë œ æ
098 099 09A 09B 09C 09D 09E 09F

ì í î ï ñ ò ó ô
0A0 0A1 0A2 0A3 0A4 0A5 0A6 0A7

ö ü ú û ü ß
0A8 0A9 0AA 0AB 0AC 0AD 0AE 0AF

Ä Å Ç È É Æ Ñ Ö
0B0 0B1 0B2 0B3 0B4 0B5 0B6 0B7

Ü Ÿ O 1 2 3 4 5
0B8 0B9 0BA 0BB 0BC 0BD 0BE 0BF



ア 100 イ 101 ウ 102 エ 103 オ 104 カ 105 キ 106 ク 107

ケ 108 コ 109 サ 10A シ 10B ス 10C セ 10D ソ 10E タ 10F

チ 110 ツ 111 テ 112 ト 113 ナ 114 ニ 115 ヌ 116 ネ 117

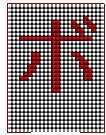
ノ 118 ハ 119 ヒ 11A フ 11B ホ 11C マ 11D ミ 11E ム 11F

メ 120 モ 121 ヤ 122 ユ 123 ヨ 124 ラ 125 リ 126 ル 127

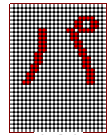
レ 128 ロ 129 ワ 12A ヲ 12B ン 12C ガ 12D ギ 12E グ 12F

ゲ 130 ゴ 131 ザ 132 シ 133 ズ 134 ゼ 135 ツ 136 ダ 137

ヂ 138 ヅ 139 デ 13A ド 13B バ 13C ビ 13D ブ 13E ヘ 13F



140



141



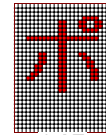
142



143



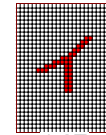
144



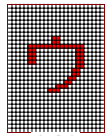
145



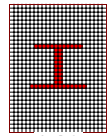
146



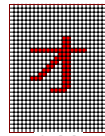
147



148



149



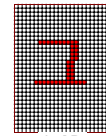
14A



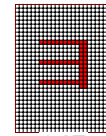
14B



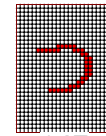
14C



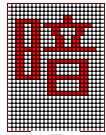
14D



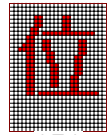
14E



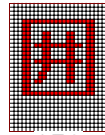
14F



150



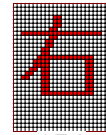
151



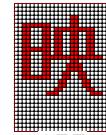
152



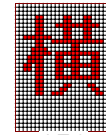
153



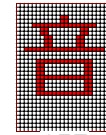
154



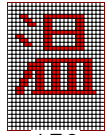
155



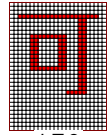
156



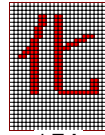
157



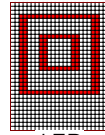
158



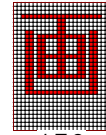
159



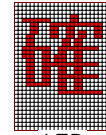
15A



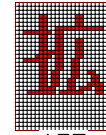
15B



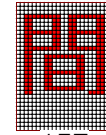
15C



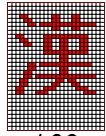
15D



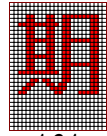
15E



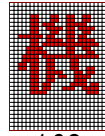
15F



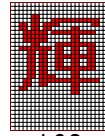
160



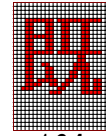
161



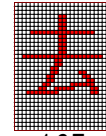
162



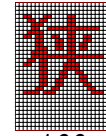
163



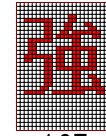
164



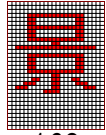
165



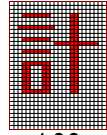
166



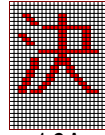
167



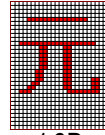
168



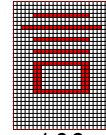
169



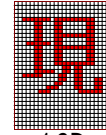
16A



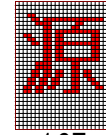
16B



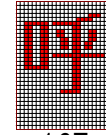
16C



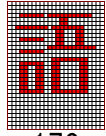
16D



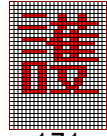
16E



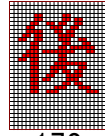
16F



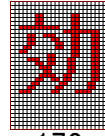
170



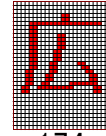
171



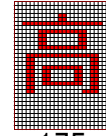
172



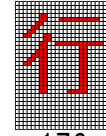
173



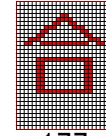
174



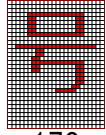
175



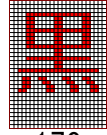
176



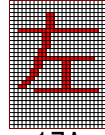
177



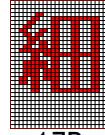
178



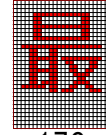
179



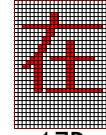
17A



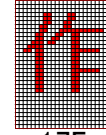
17B



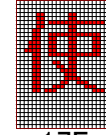
17C



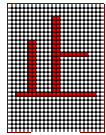
17D



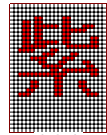
17E



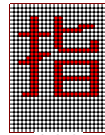
17F



180



181



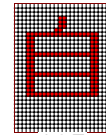
182



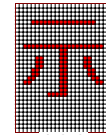
183



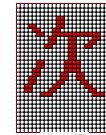
184



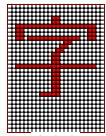
185



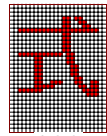
186



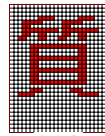
187



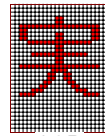
188



189



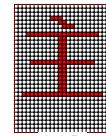
18A



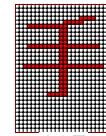
18B



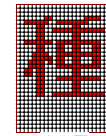
18C



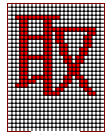
18D



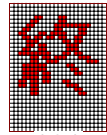
18E



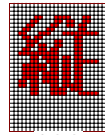
18F



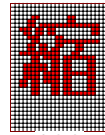
190



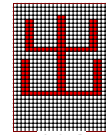
191



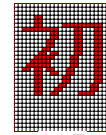
192



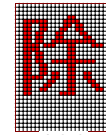
193



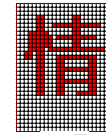
194



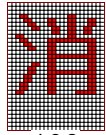
195



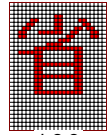
196



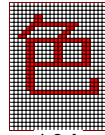
197



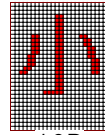
198



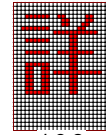
199



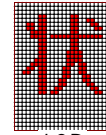
19A



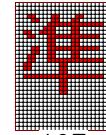
19B



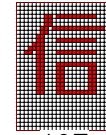
19C



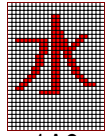
19D



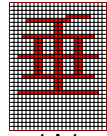
19E



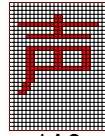
19F



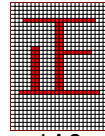
1A0



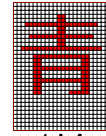
1A1



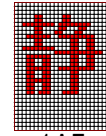
1A2



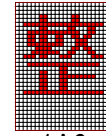
1A3



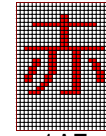
1A4



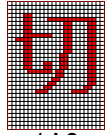
1A5



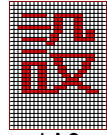
1A6



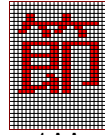
1A7



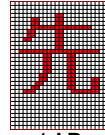
1A8



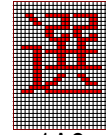
1A9



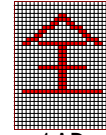
1AA



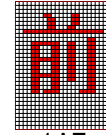
1AB



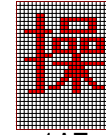
1AC



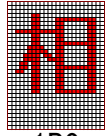
1AD



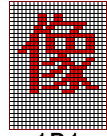
1AE



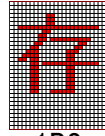
1AF



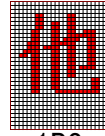
1B0



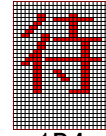
1B1



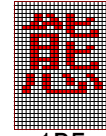
1B2



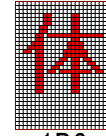
1B3



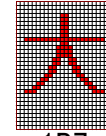
1B4



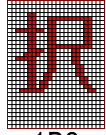
1B5



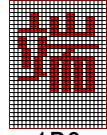
1B6



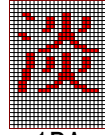
1B7



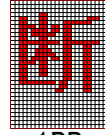
1B8



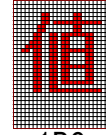
1B9



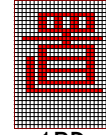
1BA



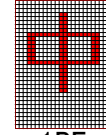
1BB



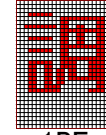
1BC



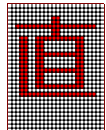
1BD



1BE



1BF



1C0



1C1



1C2



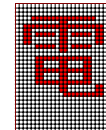
1C3



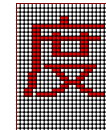
1C4



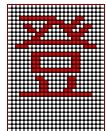
1C5



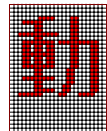
1C6



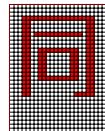
1C7



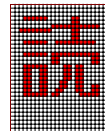
1C8



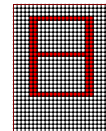
1C9



1CA



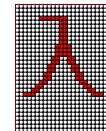
1CB



1CC



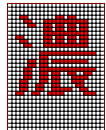
1CD



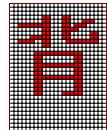
1CE



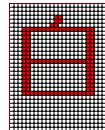
1CF



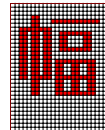
1D0



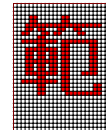
1D1



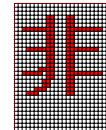
1D2



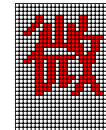
1D3



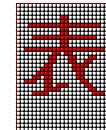
1D4



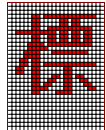
1D5



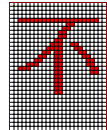
1D6



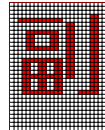
1D7



1D8



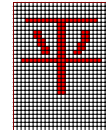
1D9



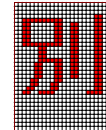
1DA



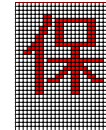
1DB



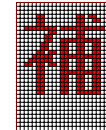
1DC



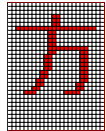
1DD



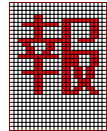
1DE



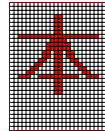
1DF



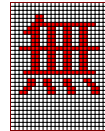
1E0



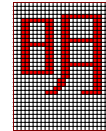
1E1



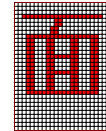
1E2



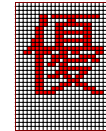
1E3



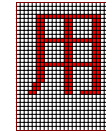
1E4



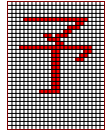
1E5



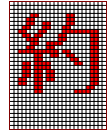
1E6



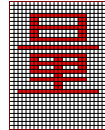
1E7



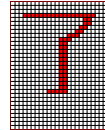
1E8



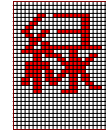
1E9



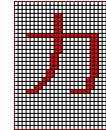
1EA



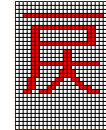
1EB



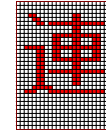
1EC



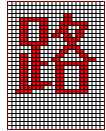
1ED



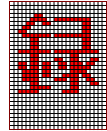
1EE



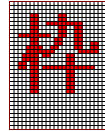
1EF



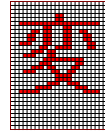
1F0



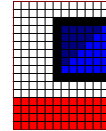
1F1



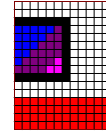
1F2



1F3



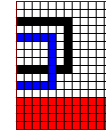
1F4



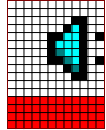
1F5



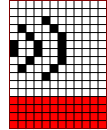
1F6



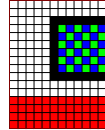
1F7



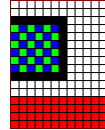
1F8



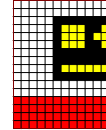
1F9



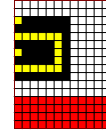
1FA



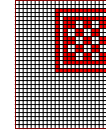
1FB



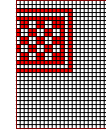
1FC



1FD



1FE



1FF