

# Communication Specifications

## 42 inch Wide Plasma Display Monitor

**Model :**

**PDS4213J-H** (EMI Class A, Japanese version, Color: Gray)

**PDS4213W-H** (EMI Class A, Worldwide version, Color: Gray)

**PDS4213E-H** (EMI Class A, European version, Color: Gray)

**PDS4214W-S** (EMI Class B, Worldwide version, Color: Silver)

**PDS4214E-S** (EMI Class B, European version, Color: Silver)

**PDS4208W-B** (EMI Class A, Worldwide version, Color: Black)

**PDS4208E-B** (EMI Class A, European version, Color: Black)

**PDS4209U-B** (EMI Class A, U.S.A. version, Color: Black)

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**Fujitsu General Limited**

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**\*Caution**

Use of functions not mentioned in this Specification may result in damage.

Please handle with care.

E Version: Video related applications only usable with up-grade kits.

## 1. Application Range

This specification applies to the control of the 42 inch Wide Plasma Display Monitor (hereafter referred to as PDP display) through PC connection.

## 2. Communication Specification

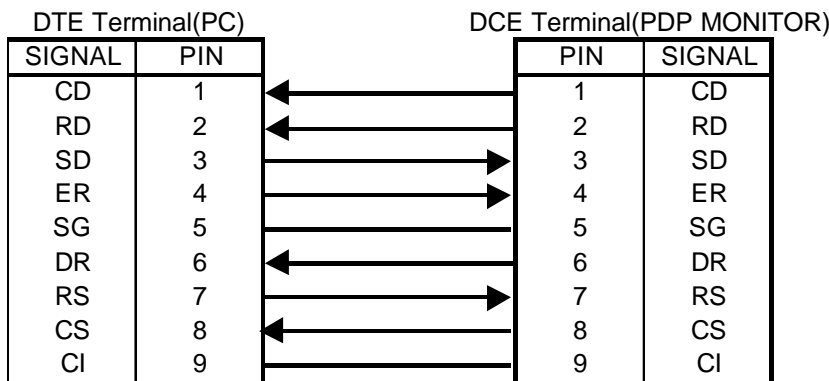
Control of the PDP display from a DTE Terminal (PC) can be made by sending commands from the DTE Terminal(PC) through an RS-232C straight cable using RS-232C interface.

### •Communication Parameter

Baud Rate	4800 bps
Data Length	8 bit
Parity	none
Stop Bit	1 bit
Flow Control	RTS/CTS
Communication Code	ASCII Code
Reception Time out	4 sec.
	After a command is sent and when the status is not returned , re-send the command after a 4 sec. time out, unless otherwise stated.

## 3. PC Connection

Connect the PDP display with an IBM compatible DTE Terminal (PC) with a D-sub 9 pin straight cable.



## 4. Communication Procedure

For communication with the PDP display, setting to the text communication mode after turning on the main power supply of the PDP display is necessary. The setting to the text communication mode can be made by sending the communication command to PDP display from the connected DTE terminal (PC).

After sending the connection command, the use of the remote controller main unit key will be prohibited/ (will not operate).

## 5. Commands Explanation

### 5-1 Communication Control

The communication is done by the handshake method, and a status is returned each time when a command is sent.

Command

!	C	-----	Cr
---	---	-------	----

"Cr" means carriage return which is "ODH" of the ASCII code.

Normal Reception Status 1

@	S	Cr
---	---	----

"Cr" means carriage return which is "ODH" of the ASCII code.

In normal status, this Normal Reception Status is returned unless otherwise mentioned.

Normal Reception Status 2

@	S	-----	Cr
---	---	-------	----

This is returned when the Current Status Notification Command / Setting Value Read-out Command is sent.

Abnormal Reception Status

@	E	Cr
---	---	----

"Cr" means carriage return which is "ODH" of the ASCII code.

### 5-2 Connection Command

Starts communication.

@	G	Cr
---	---	----

By sending this command, the mode is changed to TEXT COMMUNICATION MODE and the commands mentioned in Section 7 onwards will be accepted.

After this command is sent, wait for the Normal Reception Status. However, if no status is returned after 4 sec., resend this command.

After the connection command is sent, Undefined Data or Undefined Data + Reception status may return. Retry until only the normal status returns.

### 5-3 Termination of Communication Command

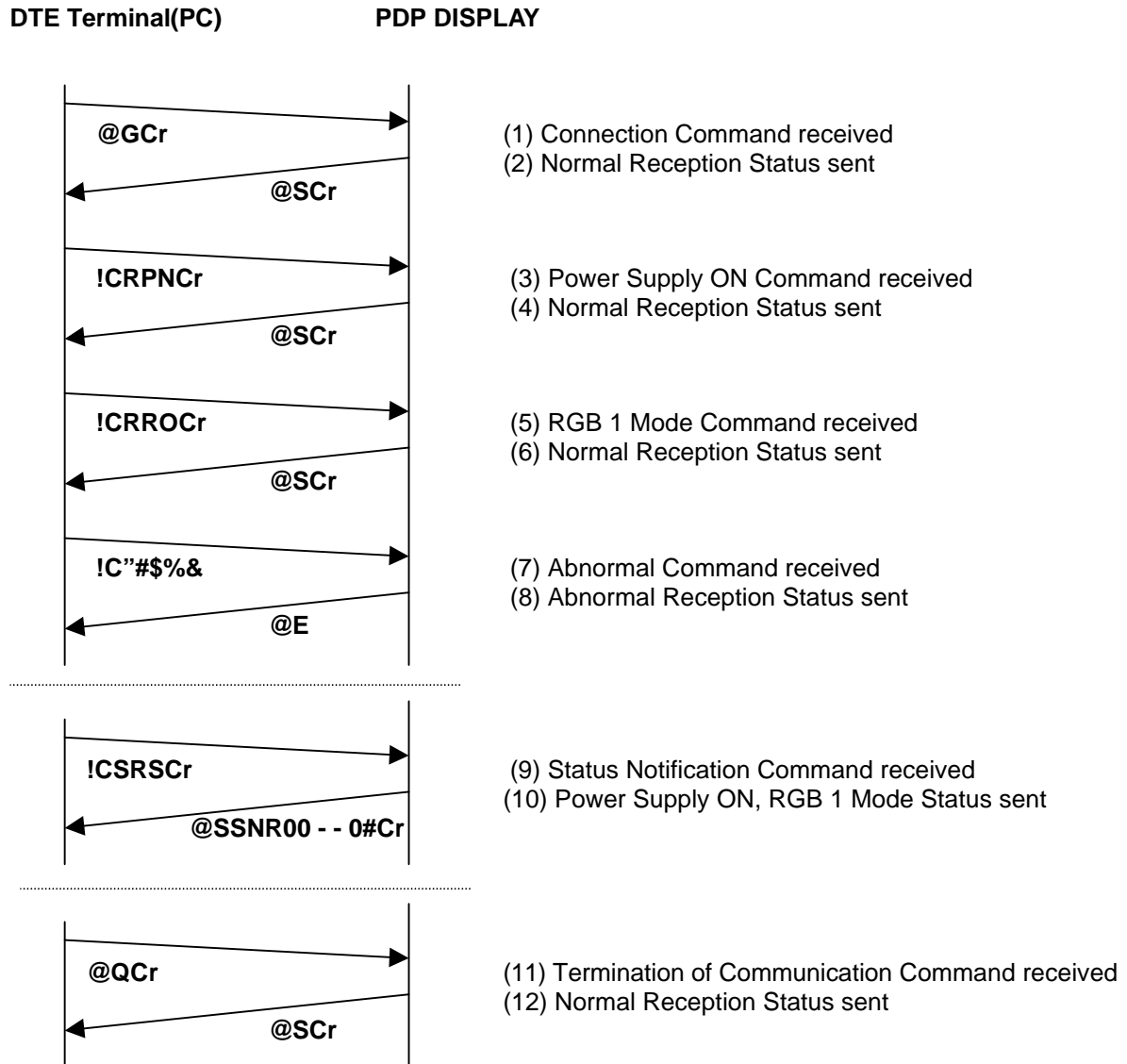
Terminates the text communication mode.

(The Remote Control and Operation Key on the unit is reactivated.)

@	Q	Cr
---	---	----

## 6. Protocol Example

The example of protocol is shown below.



## 7. Commands List

“Cr” to be added to the end of all commands.

Function	Parameter Details	Command	Note
01. Connection Command		@G	
02. Nomal Reception Status 1 (without return value)		@S	
03. Nomal Reception Status 2 (with return value)	[VVV. . . ] Return Value	@Svvv . . .	
04. Abnormal Reception Status (Error)		@E	
05 With Checksum Mode		ICCHKON	
▶ Status		@S93	
06 Without Checksum Mode		ICCHKOFF68	
07 Remote Control / Operation Key Select during communication	Permitted Prohibited	ICSETR ICSDTR	Remote control function ON /OFF during communication
08 Power Supply ON		ICRPN	Add. 8-4
09 Power Supply OFF		ICRPF	Add. 8-4
10 Software Reset		ICRST	
11 Composite Video Input		ICRVO	Add. 8-2, 8-4
12 RGB Input	01 : RGB 1 00 : RGB 2 (Add. 8-1)	ICRRO ICR2O	Add. 8-2, 8-4
13 S-Video Input		ICRSO	Add. 8-2, 8-4
14 Component Video Input	AUTO	ICRCO	Add. 8-2, 8-4
15 Aspect	Normal Auto (Cannot select in RGB/C-Video Mode) Wide 1 (Cannot select in RGB Mode) Wide 2 Zoom 1 Zoom 2 (Cannot select in RGB Mode)	ICDI0100 ICDI0101 ICDI0102 ICDI0103 ICDI0104 ICDI0105	Add. 8-2, 8-4 Auto(Add. 8-1)
16 Video Mode	Type Auto (Add. 8-1) NTSC3 PAL SECAM NTSC4 M-PAL (Add. 8-1) N-PAL (Add. 8-1)	ICDI0300 ICDI0301 ICDI0302 ICDI0303 ICDI0304 ICDI0305 ICDI0306	Add. 8-2,8-3,8-4
17 Remote Control / Operation Key Select	Prohibited / Permitted Permitted Prohibited	ICSER ICSDR	
18 OSDC Display Control	ON / OFF On Off	ICOSDCON ICOSDCOFF	OSD Control
19 LED Lighting Control	ON / OFF On Off	ICLED00 ICLED05	
20 Audio Control	[ n ] Item 0 : Volume [xx] Value [specified by Hex] ( n : 0 ) 0 . . . 40	ICDI02nxx (Volume)	Add. 8-2

Function	Parameter Details	Command	Note
21 Current Status Notification → Status Current Status Notification	[Pw] Power Supply N : ON F : OFF S : Standby [Md] Mode R : RGB 2 : RGB2 V : Video S : S-Video 5 : C-Video (DVD50Hz) 6 : C-Video (DVD60Hz) H : C-Video ( HDTV ) E : C-Video ( ELSE ) [Vm] Maintenance Code [Rm] Maintenance Code [As] Aspect 0 : Normal 1 : Auto 2 : Wide1 3 : Wide2 4 : Zoom1 5 : Zoom2	!CSRS @SSPwMdVmRm Pm- - -As#	Add. 8-4
22 Model ID Acquisition → Status	[mm] Model number      Maintenance Code 00H-FFH [v v] Version 00H-FFH [l l] Level 00H-FFH	!CVER @Svmmvll	
23 Termination of Communication		@Q	

## 8. Additional Information

8-1. PDS4208/4209 can not be specified.

8-2. Send only when the Power is ON.

8-3. Switch to Video Mode before sending this command.

8-4. After sending the following commands and the status [ @S] is returned, wait for at least the time specified below before sending the Current Status Notification[!CSRS] command or the following commands.

<b>Power ON</b> !CRPN : 7 sec.	<b>Component Video Input</b> !CRCO : 3 sec.	<b>Aspect Normal</b> !CDI0100 : 1 sec.
<b>Power OFF</b> !CRPF : 5 sec.	<b>RGB Input</b> !CRRO : 3 sec. !CR20 : 3 sec.	<b>Aspect Auto</b> !CDI0101 : 3 sec.
<b>Video (Composite) Input</b> !CRVO : 3 sec.	<b>Video Mode Auto</b> !CDI0300 : 3 sec.	<b>Aspect Others</b> !CDI0102-05 : 1 sec.
<b>S Video Input</b> !CRSO : 3 sec.	<b>Video Mode Others</b> !CDI0301-06 : 1 sec.	