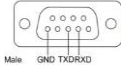




Dell™ P4317Q RS232 Protocol Document

- RS232 Display Pin Assignment (Facing Monitor)



- RS232 Serial Communication Cable Pin Assignment (Facing Cable)



Pin Assignments

RS232	PIN DESCRIPTION	RS232
1		
2	TXD	2
3	RXD	3
4		
5	GROUND	5
6		
7	Not Used	7
8	Not Used	8
9		



Note 1: The RS232 cable is not provided by Dell.

RS232 Protocol Communication Settings

Connection Settings	Value
Baud Rate	9600 bps
Data Bits	8 bits
Parity	None
Stop Bits	1 bit
Flow control	None

Command Types

To adjust the OSD settings.

Control Command Syntax (From PC to Monitor)

[H0][H1][Len][R/W][Cmd][Data0]...[DataN][Chk]

[H0] = 0x37

[H1] = 0x51

[Len] = Length

[R/W] = Read/Write

Read = 0xEB

Write = 0xEA

[Cmd] = Command

[Data0]...[DataN] = Data0-N

[Chk] = Check Sum

Reply Command Syntax (From Monitor to PC)

[H2][H3][Len][Reply][RC][Cmd][Data0]...[DataN][Chk]

[H2] = 0x6F

[H3] = 0x37

[Len] = Length

[Reply] = Reply (0x02)

[RC] = Result Code

0 = Success

1 = Timeout

2 = Parameters Error

3 = Not connected

4 = Other Failure

[Cmd] = Command

[Data0]...[DataN] = Data0-N

[Chk] = Check Sum

Example: Get Monitor Name (Maximum 10 characters)

[From PC to Monitor] = S, 37a, 51a, 02a, EBa, 01a, CHKp

[From Monitor to PC] = S, 6Fa, 37a, 09a, 02a, 00a, 01a, 50a, 34a, 33a, 31a, 37a, 51a, CHKp

Control Commands List

Command Description	Command (PC)						Reply (Monitor)						
	Header_0 (BYTE)	Header_1 (BYTE)	Length (BYTE)	R/W (BYTE)	Command (BYTE)	[Data0-DataN]-(Checksum) (BYTEx(N+1)) (BYTE)	Header_2 (BYTE)	Header_3 (BYTE)	Length (BYTE)	ReplyCode (BYTE)	ResultCode (BYTE)	Command (BYTE)	[Data0-DataN]-(Checksum) (BYTEx(N+1)) (BYTE)
/* MONITOR MANAGEMENT */													
GetAssetTag	0x37	0x51	0x02	0xEB	0x00	CHK	0x6F	0x37	0x00	0x02	RC	0x00	[Data0]-...[Data9]-CHK
GetMonitorName	0x37	0x51	0x02	0xEB	0x01	CHK	0x6F	0x37	0x00	0x02	RC	0x01	[Data0]-...[Data9]-CHK
GetMonitorSerialNumber	0x37	0x51	0x02	0xEB	0x02	CHK	0x6F	0x37	0x00	0x02	RC	0x02	[Data0]-...[Data9]-CHK
GetBacklightHours	0x37	0x51	0x02	0xEB	0x04	CHK	0x6F	0x37	0x05	0x02	RC	0x04	[Data0]-...[Data1]-CHK
/* POWER MANAGEMENT */													
GetPowerState	0x37	0x51	0x02	0xEB	0x20	CHK	0x6F	0x37	0x04	0x02	RC	0x20	[Data0]-CHK
SetPowerState	0x37	0x51	0x03	0xEA	0x20	[Data0]-CHK							
GetPowerLED	0x37	0x51	0x02	0xEB	0x21	CHK	0x6F	0x37	0x04	0x02	RC	0x21	[Data0]-CHK
SetPowerLED	0x37	0x51	0x03	0xEA	0x21	[Data0]-CHK							
GetPowerUSB	0x37	0x51	0x02	0xEB	0x22	CHK	0x6F	0x37	0x04	0x02	RC	0x22	[Data0]-CHK
SetPowerUSB	0x37	0x51	0x03	0xEA	0x22	[Data0]-CHK							
ResetPower	0x37	0x51	0x02	0xEA	0x2F	CHK							
/* IMAGE ADJUSTMENT */													
GetBrightness	0x37	0x51	0x02	0xEB	0x30	CHK	0x6F	0x37	0x04	0x02	RC	0x30	[Data0]-CHK
SetBrightness	0x37	0x51	0x03	0xEA	0x30	[Data0]-CHK							
GetContrast	0x37	0x51	0x02	0xEB	0x31	CHK	0x6F	0x37	0x04	0x02	RC	0x31	[Data0]-CHK
SetContrast	0x37	0x51	0x03	0xEA	0x31	[Data0]-CHK							
GetAspectRatio	0x37	0x51	0x02	0xEB	0x33	CHK	0x6F	0x37	0x04	0x02	RC	0x33	[Data0]-CHK
SetAspectRatio	0x37	0x51	0x03	0xEA	0x33	[Data0]-CHK							
GetSharpness	0x37	0x51	0x02	0xEB	0x34	CHK	0x6F	0x37	0x04	0x02	RC	0x34	[Data0]-CHK
SetSharpness	0x37	0x51	0x03	0xEA	0x34	[Data0]-CHK							
/* COLOR MANAGEMENT */													
GetInputColorFormat	0x37	0x51	0x02	0xEB	0x46	CHK	0x6F	0x37	0x04	0x02	RC	0x46	[Data0]-CHK
SetInputColorFormat	0x37	0x51	0x03	0xEA	0x46	[Data0]-CHK							
GetColorPresetCaps	0x37	0x51	0x02	0xEB	0x47	CHK	0x6F	0x37	0x07	0x02	RC	0x47	[Data0]-...[Data3]-CHK
GetColorPreset	0x37	0x51	0x02	0xEB	0x48	CHK	0x6F	0x37	0x07	0x02	RC	0x48	[Data0]-...[Data3]-CHK
SetColorPreset	0x37	0x51	0x06	0xEA	0x48	[Data0]-...[Data3]-CHK							
GetCustomColor	0x37	0x51	0x03	0xEB	0x49	[Data0]-CHK	0x6F	0x37	0x09	0x02	RC	0x49	[Data0]-...[Data5]-CHK
SetCustomColor	0x37	0x51	0x09	0xEA	0x49	[Data0]-...[Data6]-CHK							
ResetColor	0x37	0x51	0x02	0xEA	0x4F	CHK							
/* VIDEO INPUT MANAGEMENT */													
GetAutoSelect	0x37	0x51	0x02	0xEB	0x60	CHK	0x6F	0x37	0x04	0x02	RC	0x60	[Data0]-CHK
SetAutoSelect	0x37	0x51	0x03	0xEA	0x60	[Data0]-CHK							
GetVideoInputCaps	0x37	0x51	0x02	0xEB	0x61	CHK	0x6F	0x37	0x07	0x02	RC	0x61	[Data0]-...[Data3]-CHK
GetVideoInput	0x37	0x51	0x02	0xEB	0x62	CHK	0x6F	0x37	0x07	0x02	RC	0x62	[Data0]-...[Data3]-CHK
SetVideoInput	0x37	0x51	0x06	0xEA	0x62	[Data0]-...[Data3]-CHK							
/* PIP/PBP MANAGEMENT */													
GetPipMode	0x37	0x51	0x02	0xEB	0x70	CHK	0x6F	0x37	0x04	0x02	RC	0x70	[Data0]-CHK
SetPipMode	0x37	0x51	0x03	0xEA	0x70	[Data0]-CHK							
GetPipSubinput	0x37	0x51	0x02	0xEB	0x71	CHK	0x6F	0x37	0x07	0x02	RC	0x71	[Data0]-...[Data3]-CHK
SetPipSubinput	0x37	0x51	0x06	0xEA	0x71	[Data0]-...[Data3]-CHK							
GetPipLocation	0x37	0x51	0x02	0xEB	0x72	CHK	0x6F	0x37	0x04	0x02	RC	0x72	[Data0]-CHK
SetPipLocation	0x37	0x51	0x03	0xEA	0x72	[Data0]-CHK							
/* OSD MANAGEMENT */													
SetOSDTransparency	0x37	0x51	0x03	0xEA	0x80	[Data0]-CHK							
GetOSDTransparency	0x37	0x51	0x02	0xEB	0x80	CHK	0x6F	0x37	0x04	0x02	RC	0x80	[Data0]-CHK
SetOSDLanguage	0x37	0x51	0x03	0xEA	0x81	[Data0]-CHK							
GetOSDLanguage	0x37	0x51	0x02	0xEB	0x81	CHK	0x6F	0x37	0x04	0x02	RC	0x81	[Data0]-CHK
SetOSDTimer	0x37	0x51	0x03	0xEA	0x82	[Data0]-CHK							
GetOSDTimer	0x37	0x51	0x02	0xEB	0x82	CHK	0x6F	0x37	0x04	0x02	RC	0x82	[Data0]-CHK
SetOSDuttonLock	0x37	0x51	0x03	0xEA	0x84	[Data0]-CHK							
GetOSDuttonLock	0x37	0x51	0x02	0xEB	0x84	CHK	0x6F	0x37	0x04	0x02	RC	0x84	[Data0]-CHK
ResetOSD	0x37	0x51	0x02	0xEA	0x8F	CHK							
/* SYSTEM MANAGEMENT */													
GetVersionFirmware	0x37	0x51	0x02	0xEB	0xA0	CHK	0x6F	0x37	0x05	0x02	RC	0xA0	[Data0]-...[Data1]-CHK
GetDDCC	0x37	0x51	0x02	0xEB	0xA2	CHK	0x6F	0x37	0x04	0x02	RC	0xA2	[Data0]-CHK
SetDDCC	0x37	0x51	0x03	0xEA	0xA2	[Data0]-CHK							
GetLCDConditioning	0x37	0x51	0x02	0xEB	0xA3	CHK	0x6F	0x37	0x04	0x02	RC	0xA3	[Data0]-CHK
SetLCDConditioning	0x37	0x51	0x03	0xEA	0xA3	[Data0]-CHK							
FactoryReset	0x37	0x51	0x02	0xEA	0xAF	CHK							

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October 2015

Rev. A00