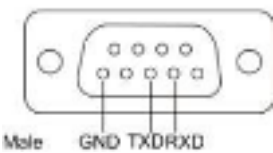


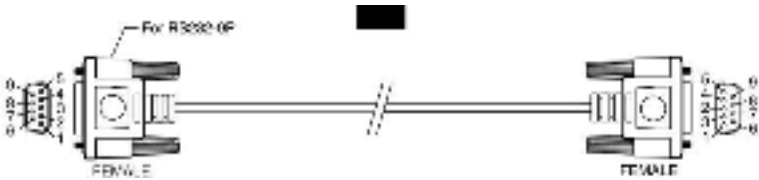


Dell™ C5518QT/C8618QT RS232 Protocol Document

- RS232 Projector 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 (pin2-3 swap) 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

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

[From PC to Monitor] = 37, 51, 02, EB, 01, 8E

[From Monitor to PC] = 6F, 37, 0F, 02, 00, 01, 44, 65, 6C, 6C, 20, 43, 35, 35, 31, 38, 51, 54, 1A

Checksum calculation

Xor byte by byte from first byte to the end of the command data stream.

Control Commands List

Command Description	Perm / Return / Comments	Request										Reply																				
		HEAD_0	HEAD_1	LEN	R/W	CMD	D0	D1	D2	D3	C-HK	HEAD_1	HEAD_2	LEN	Reply	Result	CMD	D0	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	CHK		
** MONITOR MANAGEMENT **																																
GetMonitorName	chars (nASCII)	3F	51	02	EB	01					B6	F6	3F	0F	02	00	01	"D"	"e"	"I"	"1"	20	"C"	"S"	"3"	"1"	"B"	"Q"	"L"	1A	5D	
SetMonitorSerialNumber	12 chars (in ASCII)	3F	51	02	EB	02					BD	6F	3F	0F	02	00	02	**W*	*J*	**	**								'S'	'L'		
GetBacklightHours	*Monitor Backlight Hours (WORD) 0 - 65535	3F	51	02	EB	04					BB	6F	3F	05	02	00	04	01	00												5A	
** POWER MANAGEMENT **																																
GetPowerState	Power State (BYTE) 0 - off 1 - on	3F	51	02	EB	20					AF	6F	3F	04	02	00	20	01													7F	
SetPowerState - off	1 - on	3F	51	03	EA	20	00				AF	6F	3F	04	02	00	20	00													7E	
SetPowerState - standby	2 - standby	3F	51	03	EA	20	01				A6	6F	3F	04	02	00	20	01													7F	
SetPowerState - standby		3F	51	03	EA	20	02				AD	6F	3F	04	02	00	20	02													7C	
GetPowerLED	Power LED Setting (BYTE) 0 - off during Active 1 - on during Active	3F	51	02	EB	21	00				AE	6F	3F	04	02	00	21	01													7E	
SetPowerLED - off during active		3F	51	03	EA	21	00				AE	6F	3F	04	02	00	21	00													7C	
SetPowerLED - on during active		3F	51	03	EA	21	01				AF	6F	3F	04	02	00	21	01														7E
SetPowerUSB - off during standby	Power USB Setting (BYTE) 0 - Off during Standby 1 - on during Standby	3F	51	03	EA	22	00				AD	6F	3F	04	02	00	22	00													7D	
SetPowerUSB - on during standby		3F	51	03	EA	22	01				AC	6F	3F	04	02	00	22	01													7C	
ResetPower	1	3F	51	03	EA	2F	01				A1	6F	3F	04	02	00	2F	01													70	
** IMAGE ADJUSTMENT **																																
GetBrightness	Brightness (BYTE) 0 - 100 values in increments of 1	3F	51	02	EB	30					B6	F6	3F	04	02	00	30	4B													25	
SetBrightness - 75		3F	51	03	EA	30	4B				F4	6F	3F	04	02	00	30	4B													25	
SetBrightness - 100		3F	51	03	EA	30	64				DB	6F	3F	04	02	00	30	64													0A	
SetBrightness - 0		3F	51	03	EA	30	00				B6	F6	3F	04	02	00	30	00													6E	
SetBrightnessStep - Decrease	Brightness Step 0 - Decrease (-) 1 - Increase (+)	3F	51	03	EA	35	00				BA	6F	3F	04	02	00	35	00													6B	
SetBrightnessStep - Increase		3F	51	03	EA	35	01				BB	6F	3F	04	02	00	35	01													6A	
GetContrast	Contrast (BYTE) 0 - 100 values in increments of 1	3F	51	02	EB	31					B6	F6	3F	04	02	00	31	4B													24	
SetContrast - 75		3F	51	03	EA	31	4B				F5	6F	3F	04	02	00	31	4B													24	
SetContrast - 100		3F	51	03	EA	31	64				DA	6F	3F	04	02	00	31	64													0B	
SetContrast - 0		3F	51	03	EA	31	00				B6	F6	3F	04	02	00	31	00													6F	
StepContrastStep - Decrease	Contrast Step 0 - Decrease (-) 1 - Increase (+)	3F	51	03	EA	36	00				B9	6F	3F	04	02	00	36	00													69	
StepContrastStep - Increase		3F	51	03	EA	36	01				BB	6F	3F	04	02	00	36	01													68	
GetAspectRatio	Aspect Ratio (BYTE) 0 - Wide 16:9 2 - 4:3 4 - 5:4	3F	51	02	EB	33					BC	6F	3F	04	02	00	33	00													6D	
SetAspectRatio - Wide 16:9		3F	51	03	EA	33	00				BC	6F	3F	04	02	00	33	00													6D	
SetAspectRatio - 4:3		3F	51	03	EA	33	02				B6	F6	3F	04	02	00	33	02													6F	
SetAspectRatio - 5:4		3F	51	03	EA	33	04				BB	6F	3F	04	02	00	33	04													6E	
GetSharpness	Sharpness (BYTE) 0 - 100 values in increments of 10	3F	51	02	EB	34					BB	6F	3F	04	02	00	34	32													58	
SetSharpness - 50		3F	51	03	EA	34	32				B9	6F	3F	04	02	00	34	32													58	
SetSharpness - 100		3F	51	03	EA	34	64				DF	6F	3F	04	02	00	34	64													0A	
SetSharpness - 0		3F	51	03	EA	34	00				BB	6F	3F	04	02	00	34	00													6E	
** COLOR MANAGEMENT **																																
GetColorTempCaps	Bitwise representation of color temperatures (DWORD)	3F	51	02	EB	42					CD	6F	3F	07	02	00	42	3F	0	0	0										20	
GetColorTemp		3F	51	02	EB	43					CC	6F	3F	07	02	00	43	04	00	00	00										1F	
SetColorTemp - 5000K	0x00000001 - 5000K	3F	51	06	EA	43	01	00	00	00	C8	6F	3F	07	02	00	43	01	00	00	00										1A	
SetColorTemp - 5700K	0x00000002 - 5700K	3F	51	06	EA	43	02	00	00	00	C8	6F	3F	07	02	00	43	02	00	00	00										1C	
SetColorTemp - 6500K	0x00000004 - 6500K	3F	51	06	EA	43	04	00	00	00	CD	6F	3F	07	02	00	43	04	00	00	00										1A	
SetColorTemp - 7500K	0x00000007 - 7500K	3F	51	06	EA	43	08	00	00	00	C1	6F	3F	07	02	00	43	08	00	00	00										0E	
SetColorTemp - 9300K	0x00000020 - 9300K	3F	51	06	EA	43	10	00	00	00	D9	6F	3F	07	02	00	43	10	00	00	00										16	
SetColorTemp - 10000K	0x00000020 - 10000K	3F	51	06	EA	43	20	00	00	00	E9	6F	3F	07	02	00	43	20	00	00	00										3E	
GetInputColorFormat	Input Color Format (BYTE) 0 - RGB 1 - YCbCr	3F	51	02	EB	46	00				C9	6F	3F	04	02	00	46	01													19	
SetInputColorFormat - RGB		3F	51	03	EA	46	00				C9	6F	3F	04	02	00	46	00													19	
SetInputColorFormat - YCbCr		3F	51	03	EA	46	01				C8	6F	3F	04	02	00	46	01													1B	
GetColorPresetsCaps	0x00000001 - Standard 0x00000040 - ComfortView 0x00000002 - Multimedia 0x00000008 - Color Temp	3F	51	02	EB	47					C8	6F	3F	07	02	00	47	43	04	00	00										14	
SetColorPreset - Standard		3F	51	06	EA	48	01	00	00	00	C3	6F	3F	07	02	00	48	01	00	00	00										14	
SetColorPreset - ComfortView		3F	51	06	EA	48	00	04	00	00	C6	6F	3F	07	02	00	48	00	04	00	00										11	
SetColorPreset - Multimedia		3F	51	06	EA	48	02	00	00	00	C0	6F	3F	07	02	00	48	02	00	00	00										17	
SetColorPreset - Color Temp		3F	51	06	EA	48	20	00	00	00	E2	6F	3F	07	02	00	48	20	00	00	00										35	
SetColorPreset - Custom		3F	51	06	EA	48	80	00	00	00	42	6F	3F	07	02	00	48	80	00	00	00										95	
GetCustomColor	0 - Gain	3F	51	03	EB	49	00				C7	6F	3F	06	02	00	49	64	64	64											71	
SetCustomColor - Gain_RGB (100,100,100)		3F	51	06	EA	49	00	64	64	64	A7	6F	3F	07	02	00	49	00	64	64	64										70	
SetCustomColor - Gain_RGB (50,50,50)		3F	51	06	EA	49	00	32	32	32	F1	6F	3F	07	02	00	49	00	32	32	32										26	
SetCustomColor - Gain_RGB (0,0,0)		3F	51	06	EA	49	00	00	00	00	C3	6F	3F	07	02	00	49	00	00	00	00										14	
ResetColor	1	3F	51	03	EA	4F	01				C1	6F	3F	04	02	00	4F	01													10	
** VIDEO INPUT MANAGEMENT **																																
GetAutoSelect	Auto Select (BYTE) 0 - off 1 - on	3F	51	02	EB	60					E6	6F	3F	04	02	00	60	01													3F	
SetAutoSelect - off		3F	51	03	EA	60	00				E6	6F	3F	04	02	00	60	00													3E	
SetVideoInputCaps	0x00000001 - HDMI1 0x00000002 - HDMI2 0x00000004 - HDMI3 0x00000008 - DP1 0x00000040 - VGA1	3F	51	02	EB	61					EE	6F	3F	07	02	00	61	04	00	00	00										3E	
GetVideoInput		3F	51	02	EB	62					ED	6F	3F	07	02	00	62	01	00	00	00										3E	
SetVideoinput - HDMI1		3F	51	06	EA	62	01	00	00	00	E9	6F	3F	07	02	00	62	01	00	00	00										3D	
SetVideoinput - HDMI2		3F	51	06	EA	62	02	00	00	00	EA	6F	3F	07	02	00	62	02	00	00	00										3D	
SetVideoinput - HDMI3		3F	51	06	EA	62	04	00	00	00	EC	6F																				

