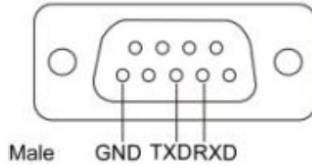


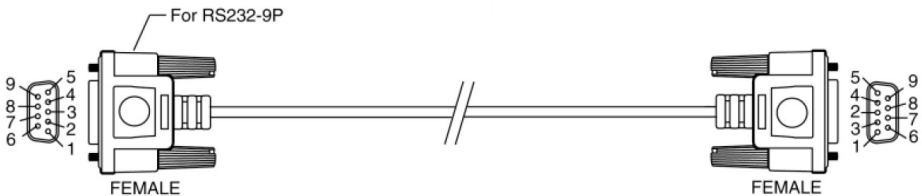


Dell™ C7016H RS232 Protocol Document

- RS232 Pin Assignment



- 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

Example Command

API	Command sent from SDK	Reply from DUT
GetBrightness	S-6Ea-51a-82a-EBa-30a-CHKa-P	S-6Fa-6Ea-84a-02a-[RC] a-30a-[Data0]a-...-[DataN]- CHKa-P
Parameters	uLength = 2; uOpCode = 0xEB; // Read uVcpCode = 0x30; // Brightness	uLength = 4; uOpCode = 0x02; // Reaply from DUT uVcpCode = 0x30; // Brightness uValue = uBrightness; // 0-100
SetBrightness	S-6Ea-51a-83a-EAa-30a-[Data0] a-...-[DataN]-CHKa-P	
Parameters	uLength = 3; uOpCode = 0xEA; // Write uVcpCode = 0x30; // Brightness uValue = uBrightness; // 0-100	
GetColorPreset	S-6Ea-51a-82a-EBa-48a-CHKa-P	S-6Fa-6Ea-87a-02a-[RC] a-48a-[Data0]a-...-[DataN]- CHKa-P
Parameters	uLength = 2; uOpCode = 0xEB; // Read uVcpCode = 0x47; // ColorPreset	uLength = 7; uOpCode = 0x02; // Reaply uVcpCode = 0x30; // ColorPreset u32Value = u32ColorPreset; // 0-0xFFFFFFFF
SetColorPreset	S-6Ea-51a-86a-EAa-48a-[Data0] a-...-[DataN]-CHKa-P	
Parameters	uLength = 6; uOpCode = 0xEA; // Write uVcpCode = 0x48; // ColorPreset u32Value = u32Brightness; // 0-0xFFFFFFFF	

Control Commands List

APIs	Cate Code (M4bit)	Command	N bytes of replied Data	Reply	Comment
GetMonitorName	00h	6e 51 82 eb 01 chk	10	6f-6e-8d-02-[RC]-01-[Data0]-... [DataN]-chk	
GetMonitorSerialNumber	00h	6e 51 82 eb 02 chk	12	6f-6e-8f-02-[RC]-02-[Data0]-... [DataN]-chk	
GetBacklightHours	00h	6e 51 82 eb 04 chk	2	6f-6e-85-02-[RC]-04-[Data0]-... [DataN]-chk	
GetPowerState	20h	6e 51 82 eb 20 chk	1	6f-6e-84-02-[RC]-20-[Data0]-... [DataN]-chk	Power State 0 Off 1 On 2 Standby
SetPowerState	20h	6e-51-83-ea-20-[Data0]-...-[DataN]-chk	0		Power State 0 Off 1 On 2 Standby
GetPowerLED	20h	6e 51 82 eb 21 chk	1	6f-6e-84-02-[RC]-21-[Data0]-... [DataN]-chk	Power LED Setting 0 Off during Active 1 On during Active
SetPowerLED	20h	6e-51-83-ea-21-[Data0]-...-[DataN]-chk	0		Power LED Setting 0 Off during Active 1 On during Active
GetPowerUSB	20h	6e 51 82 eb 22 chk	1	6f-6e-84-02-[RC]-22-[Data0]-... [DataN]-chk	Power USB Setting 0 Off during Standby 1 On during Standby
SetPowerUSB	20h	6e-51-83-ea-22-[Data0]-...-[DataN]-chk	0		Power USB Setting 0 Off during Standby 1 On during Standby
ResetPower	20h	6e 51 82 ea 2f chk	0		
GetBrightness	30h	6e 51 82 eb 30 chk	1	6f-6e-84-02-[RC]-30-[Data0]-... [DataN]-chk	
SetBrightness	30h	6e-51-83-ea-30-[Data0]-...-[DataN]-chk	0		

GetContrast	30h	6e 51 82 eb 31 chk	1	6f-6e-84-02-[RC]-31-[Data0]-...[DataN]-chk	
SetContrast	30h	6e-51-83-ea-31-[Data0]-...-[DataN]-chk	0		
GetSharpness	30h	6e 51 82 eb 34 chk	1	6f-6e-84-02-[RC]-34-[Data0]-...[DataN]-chk	
SetSharpness	30h	6e-51-83-ea-34-[Data0]-...-[DataN]-chk	0		
GetResponseTime	30h	6e 51 82 eb 35 chk	1	6f-6e-84-02-[RC]-35-[Data0]-...[DataN]-chk	
SetResponseTime	30h	6e-51-83-ea-35-[Data0]-...-[DataN]-chk	0		
GetInputColorFormat	40h	6e 51 82 eb 46 chk	1	6f-6e-84-02-[RC]-46-[Data0]-...[DataN]-chk	0 RGB 1 YPbPr
SetInputColorFormat	40h	6e-51-83-ea-46-[Data0]-...-[DataN]-chk	0		0 RGB 1 YPbPr
GetColorPresetCaps	40h	6e 51 82 eb 47 chk	4	6f-6e-87-02-[RC]-47-[Data0]-...[DataN]-chk	0x00000001 Standard 0x00000080 Custom Color For example: 0x00000081 would indicate Standard, and Custom Color presets available
GetColorPreset	40h	6e 51 82 eb 48 chk	4	6f-6e-87-02-[RC]-48-[Data0]-...[DataN]-chk	0x00000001 Standard 0x00000080 Custom Color
SetColorPreset	40h	6e-51-83-ea-48-[Data0]-...-[DataN]-chk	0		0x00000001 Standard 0x00000080 Custom Color
GetCustomColor	40h	6e 51 82 eb 49 chk	6	6f-6e-89-02-[RC]-49-[Data0]-...[DataN]-chk	R value, 0 to 100 G value, 0 to 100 B value, 0 to 100
SetCustomColor	40h	6e-51-83-ea-49-[Data0]-...-[DataN]-chk	0		R value, 0 to 100 G value, 0 to 100 B value, 0 to 100

ResetColor	40h	6e 51 82 ea 4f chk	0		
GetVideoInputCaps	60h	6e 51 82 eb 61 chk	4	6f-6e-87-02-[RC]-61-[Data0]-...[DataN]-chk	0x00000001 HDMI1 0x00000002 HDMI2 0x00000008 DP 0x00000040 VGA For example: 0x00000049 would indicate HDMI1, DP1 and VGA1 available
GetVideoInput	60h	6e 51 82 eb 62 chk	4	6f-6e-87-02-[RC]-62-[Data0]-...[DataN]-chk	0x00000001 HDMI1 0x00000002 HDMI2 0x00000008 DP1 0x00000040 VGA1
SetVideoInput	60h	6e-51-83-ea-62-[Data0]-...-[DataN]-chk	0		0x00000001 HDMI1 0x00000002 HDMI2 0x00000008 DP1 0x00000040 VGA1
SetOSDLanguage	80h	6e-51-83-ea-81-[Data0]-...-[DataN]-chk	0		0 English 1 Espanol 2 Francais 3 Deutsch 4 Português (Brasil) 5 Русский 6 简体中文 7 日本語
GetOSDLanguage	80h	6e 51 82 eb 81 chk	1	6f-6e-84-02-[RC]-81-[Data0]-...[DataN]-chk	0 English 1 Espanol 2 Francais 3 Deutsch 4 Português (Brasil) 5 Русский 6 简体中文 7 日本語
SetOSDTimer	80h	6e-51-83-ea-83-[Data0]-...-[DataN]-chk	0		
GetOSDTimer	80h	6e 51 82 eb 83 chk	1	6f-6e-84-02-[RC]-83-[Data0]-...[DataN]-chk	
SetOSDButtonLock	80h	6e-51-83-ea-84-[Data0]-...-[DataN]-chk	0		OSD Button Lock 0 Unlock 1 Lock

GetOSDButtonLock	80h	6e 51 82 eb 84 chk	1	6f-6e-84-02-[RC]-84-[Data0]-...[DataN]-chk	OSD Button Lock 0 Unlock 1 Lock
ResetOSD	80h	6e 51 82 ea 8f chk	0		
GetVersionFirmware	A0h	6e 51 82 eb a0 chk	10	6f-6e-8D-02-[RC]-A0-[Data0]-...[DataN]-chk	
GetLCDConditioning	A0h	6e 51 82 eb a4 chk	1	6f-6e-84-02-[RC]-A4-[Data0]-...[DataN]-chk	LCD Conditioning 0 Disabled 1 Enabled
SetLCDConditioning	A0h	6e-51-83-ea-A4-[Data0]-...-[DataN]-chk	0		LCD Conditioning 0 Disabled 1 Enabled
FactoryReset	A0h	6e 51 82 ea af chk	0		0

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