

EP4650/EP5550 RS232 User Manual

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Part Number: 020-1227-00A

RS232 Codes

RS232 control is not necessary for operation, but is a convenient way to control displays from a computer at a distance. Most things you can do with the remote, you can do with RS232 commands. Plus, you can send inquiries to the displays and find out the current settings and values.

1 RS232 Command Format

STX (1 byte) + **IDT** (1byte) + **Type** (1byte) + **CMD** (3bytes) + [**Value/Reply** (1byte)] + **ETX** (1 byte)

STX: Start byte = **07**

IDT: **00** (Hex Num) for broadcast mode (no announcing, only for video wall),
01~19 (Hex Num) for single control mode.

Type: Read or Write command, **01**: read/action, **02**: write; **00**: return to host (from monitor)

CMD: As shown in the table on the following pages

Value: Setting Value of Write Command

Reply: Return Value of monitor

ETX: End byte = **08**

Transmit from PC (Host)

Read/Action command: 07 IDT 01 CMD 08 (7bytes)

Write/Setting command: 07 IDT 02 CMD VAL 08 (8 bytes)

Return from Monitor: Return CMD is the same with received CMD, the return command will be sent after action. In broadcast mode, no return will be sent.

Return command: 07 IDT 00 CMD REP 08 (8 bytes)

2 Serial Port Setting

Baud Rate	Data Bit	Parity Bit	Stop Bit
115200	8	None	1

Note: Baud rate can be set to 38400, 19200 or 9600 to match the monitor baud rate setting.

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes
Power Control and Input Source	Power Control	POW	W/R	00	00	Off (soft power)	50 4F 57	See Note 1
				01	01	On (soft power)		See Note 1
	Input Source	MIN	W/R	00	00	VGA	4D 49 4E	
				01	01	Digital DVI		
				02	02	S-Video		
				03	03	Composite 1		
				04	04	Component 1		
				05	05	HDSDI 1		
				06	06	HDSDI 2		
				09	09	HDMI 1		
				10	10	HDMI 2		
			13	13	Displayport			
Display Adjustment	Display Adjustment	BRI	W/R	0~100	Current value	Back Light Brightness	42 52 49	
		BRL		0~100	Current value	Digital Brightness Level	42 52 4C	
		BLC		00	00	Off (Back Light)	42 4C 43	
				01	01	On (Back Light)		
		CON	W/R	0~100	Current value	Contrast	43 4F 4E	
		HUE		0~100	Current value	Hue	48 55 45	
	SAT	0~100		Current value	Saturation	53 41 54		
	COT	W/R	00	00	User	43 4F 54		
			01	01	6500K			
			02	02	9300K			
			03	03	3200K			
			06	06	5000K			
07			07	7500K				

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes
Display Adjustment	Display Adjustment	GAC	W/R	00	00	Off (Gamma)	7 41 43	
				01	01	2.2 (Gamma)		
		PHA	W/R	0~63	Current value	Phase	50 48 41	
		CLO		0~100		Clock	43 4C 4F	
		HOR	R		Current value	Horizontal Position	48 4F 52	
		VER				Vertical Position	56 45 52	
	ADJ	W	00	00	Auto Adjust	41 44 4A		
Video Mode	SHA	W/R	0~24	Current value	Sharpness	53 48 41		
Other Control	PIP Adjust	PSC	W/R	00	00	PIP OFF	50 53 43	
				01	01	PIP Small		
				02	02	PIP medium		
				03	03	PIP large		
				04	04	PIP side-by-side		
	PIP source selection	PIN	W/R	00	00	VGA	50 49 4E	
				01	01	Digital DVI		
				02	02	S-Video		
				03	03	Composite 1		
				04	04	Component 1		
				05	05	HDSDI 1		
				06	06	HDSDI 2		
				09	09	HDMI 1		
	10	10	HDMI 2					
	13	13	Displayport					
	PIP position	PPO	W/R	00	00	PIP Position Bottom-left	50 50 4F	
				01	01	PIP Position Bottom-right		
02				02	PIP Position Top-left			
03				03	PIP Position Top-right			

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes	
Other Control	PIP/Main Swap	SWA	W	00	00	Swap main and PIP	53 57 41		
	Scaling	ASP	W/R	00	00	Native	41 53 50		
				01	01	Fill			
				02	02	PILLAR Box			
				03	03	Letter Box			
		ZOM	W	00	00	Zoom in	5A 4F 4D		
				01	01	Zoom out			
		Baud Rate Adjustment	BRA	W/R	00	00	115200	42 52 41	
					01	01	38400		
	02				02	19200			
	03				03	9600			
	Other Control	RCU	W	00	00	MENU Key	52 43 55		
				01	01	INFO Key			
				02	02	UP Key			
				03	03	DOWN Key			
				04	04	LEFT Key			
				05	05	RIGHT Key			
				06	06	ENTER Key			
				07	07	EXIT Key			
		ALL	W	00	00	Reset all	41 4C 4C		
		KLC	W/R	00	00	Un-lock keys	4B 4C 43		
				01	01	Lock keys			
		SER	R		13 bytes	Read Serial Number	53 45 52		
		MNA			13 bytes	Read Model Name	4D 4E 41		
		GVE			6 bytes	Read Firmware Version	47 56 45		
		RTV			Current value	Read RS232 table Version	52 54 56		

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes
Other Control	Wake Up From Sleep	WFS	W/R	0	0	Set VGA_ONLY	57 46 53	
				1	1	Set VGA_DIGITAL_RS232		
				2	2	Set Never_Sleep		
	Audio	VOL	W/R	0~100	Current value	volume	56 4F 4C	
		MUT		00	00	Mute Off	4D 55 54	
				01	01	Mute On		
	Scheme Selection	SCM	W/R	00	00	User	53 43 4D	
				01	01	Sport		
				02	02	Game		
				03	03	Cinema		
				04	04	Vivid		
	Multi-Display	VWS	W/R	00	00	Video Wall Switch Off	56 57 53	
				01	01	Video Wall Switch On		
		VWF		00	00	Video Wall Frameless Off	56 57 46	
				01	01	Video Wall Frameless On		
		MAT		X: 1-5 Y: 1-5	Current value	Matrix X, Y value High quarter is X: 7-4 bit Low quarter is Y: 3-0 bit	4D 41 54	
		DIV		X: 1-5 Y: 1-5	Current value	Divisions X, Y value High quarter is X: 7-4 bit Low quarter is Y: 3-0 bit	44 49 56	Note 1
		DID		00	00	DVI Indemnity Off	44 49 44	
				01	01	DVI Indemnity On		
		POD		0-30	Current value	Integral part of Power On Delay (0-30 sec.)	50 4F 44	

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes
RTC	Current Time Adjustment	RTY	W/R	0~99	0~99	Year	52 54 59	
		RTM		0~12	0~12	Month	52 54 4D	
		RTD		1~31	1~31	Day	52 54 44	
		RTH		0~23	0~23	Hour	52 54 48	
		RTN		0~59	0~59	Minute	52 54 4E	
	Timer Mode	TMS	W/R	0	0	All	54 4D 53	
				1	1	Work Days		
				2	2	User		
	Alarm Mode	AEN	W/R	1	1	Sunday	41 45 4E	
				2	2	Monday		
				4	4	Tuesday		
				8	8	Wednesday		
				16	16	Thursday		
				32	32	Friday		
				64	64	Saturday		
	Alarm Disable	AEF	W/R	1	1	Sunday	41 45 46	
				2	2	Monday		
				4	4	Tuesday		
				8	8	Wednesday		
				16	16	Thursday		
				32	32	Friday		
				1	1	Sunday		
	Sunday	SNH	W/R	0~23	0~23	Sunday On Hour	49 4E 48	
		SNM		0~59	0~59	Sunday On Minute	53 4E 4D	
		SFH		0~23	0~23	Sunday Off Hour	53 46 48	
		SFM		0~59	0~59	Sunday Off Minute	53 46 4D	
	Monday	NNH	W/R	0~23	0~23	Monday On Hour	4E 4E 48	
		NNM		0~59	0~59	Monday On Minute	4E 4E 4D	
NFH		0~23		0~23	Monday Off Hour	4E 46 48		
NFM		0~59		0~59	Monday Off Minute	4E 46 4D		

Main Item	Control Item	CMD	Type	Value (DEC)	Reply (DEC)	Content	CMD (HEX)	Notes
RTC	Tuesday	ENH	W/R	0~23	0~23	Tuesday On Hour	45 4E 48	
		ENM		0~59	0~59	Tuesday On Minute	45 4E 4D	
		EFH		0~23	0~23	Tuesday Off Hour	45 46 48	
		EFM		0~59	0~59	Tuesday Off Minute	45 46 4D	
	Wednesday	DNH	W/R	0~23	0~23	Wednesday On Hour	44 4E 48	
		DNM		0~59	0~59	Wednesday On Minute	44 4E 4D	
		DFH		0~23	0~23	Wednesday Off Hour	44 46 48	
		DFM		0~59	0~59	Wednesday Off Minute	44 46 4D	
	Thursday	UNH	W/R	0~23	0~23	Thursday On Hour	55 4E 48	
		UNM		0~59	0~59	Thursday On Minute	55 4E 4D	
		UFH		0~23	0~23	Thursday Off Hour	55 46 48	
		UFM		0~59	0~59	Thursday Off Minute	55 46 4D	
	Friday	INH	W/R	0~23	0~23	Friday On Hour	49 4E 48	
		INM		0~59	0~59	Friday On Minute	49 4E 4D	
		IFH		0~23	0~23	Friday Off Hour	49 46 48	
		IFM		0~59	0~59	Friday Off Minute	49 46 4D	
	Saturday	TNH	W/R	0~23	0~23	Saturday On Hour	54 4E 48	
		TNM		0~59	0~59	Saturday On Minute	54 4E 4D	
		TFH		0~23	0~23	Saturday Off Hour	54 46 48	
		TFM		0~59	0~59	Saturday Off Minute	54 46 4D	

※: The RS232 transition will be blocked for around six seconds after a power on/off command has been performed.

Note 1: In broadcast setting mode, this command is used to auto arrange the Division X/Y. (The Value Byte needs to be 0x11.)

Accessing Planar's Technical Support Website

- 1 Go to www.planarpartners.com
- 2 Once you enter your login and password, you can access downloadable utility software, new firmware and user manuals.

Downloading Utility Software

- 1 Go to www.planarpartners.com.
- 2 Enter your login and password information.
- 3 Navigate to the section that contains software updates and then look for EP4560/EP5550.
- 4 From the list of available software, click on the tool you need.