

Planar PS Series RS232 User Guide



Touchboards

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PS4662T
PS5562
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Part Number: 020-1329-00B

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

STX: Start byte = **07**

IDT: Don't care

Type: Read or Write command, **01**: read, **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 command: 07 IDT 01 CMD 08 (7bytes)

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

Return from Monitor: Sent after receiving any valid command. The response CMD is the same as the received CMD.

2 Serial Port Setting

Baud Rate	Data Bit	Parity Bit	Stop Bit
19200	8	None	1

Baud rate can be set to 115200, 38400, 19200, or 9600 to match the monitor baud rate setting.

Baud rate 19200 is the default setting.

Explanation of symbols

▲: Valid command in standby mode.

Note: The Wake Up from Sleep setting must be set to Wake on All for these commands to work in standby.

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
Power Control and Input Source	Power Control	POW	R/W	00	Off (soft power)	50 4F 57	▲
				01	On (soft power)		▲
	Input Source	MIN	R/W	00	VGA	4D 49 4E	
				13	DisplayPort		
				9	HDMI1		
				10	HDMI2		
	Display Adjustment	Color	BRI	R/W	0~100	Backlight Brightness	42 52 49
BRL			R/W	0~100	Digital Brightness Level	42 52 4C	
BLC			R/W	00	Off (Backlight)	42 4C 43	
				01	On (Backlight)		
CON			R/W	0~100	Contrast	43 4F 4E	
SHA			R/W	0~8	Sharpness	53 48 41	
HUE			R/W	0~100	Hue	48 55 45	
SAT			R/W	0~100	Saturation	53 41 54	
Scheme		SCM	R/W	00	User	53 43 4D	
				01	Sport		
				02	Game		
				03	Cinema		
				04	Vivid		

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
Display Adjustment	Color Temperature	COT	R/W	00	User	43 4F 54	
				01	6500K		
				02	9300K		
				03	3200K		
				06	5000K		
				07	7500K		
	Gamma	GAC	R/W	00	Off (Gamma)	47 41 43	
				01	1.85 (Gamma)		
				02	1.9 (Gamma)		
				03	1.95 (Gamma)		
				04	2.0 (Gamma)		
				05	2.05 (Gamma)		
				06	2.15 (Gamma)		
				07	2.15 (Gamma)		
				08	2.2 (Gamma)		
				09	2.25 (Gamma)		
				10	2.3 (Gamma)		
11	2.35 (Gamma)						
12	2.4 (Gamma)						
13	2.45 (Gamma)						
14	2.5 (Gamma)						
15	2.55 (Gamma)						
16	2.6 (Gamma)						

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
Display Adjustment	Gain & Offset	USR	R/W	0~100	Red Gain (0~100)	55 53 52	
		USG	R/W	0~100	Green Gain (0~100)	55 53 47	
		USB	R/W	0~100	Blue Gain (0~100)	55 53 42	
		UOR	R/W	0~100	Red Offset (0~100)	55 4F 52	
		UOG	R/W	0~100	Green Offset (0~100)	55 4F 47	
		UOB	R/W	0~100	Blue Offset (0~100)	55 4F 42	
	VGA Adjustment	PHA	R/W	0~63	Phase	50 48 41	
		CLO	R/W	0~100	Clock	43 4C 4F	
		HOR	R/W	0~100	Horizontal Position	48 4F 52	
		VER	R/W	0~100	Vertical Position	56 45 52	
		ADJ	W	00	Auto Adjust	41 44 4A	
RTC	Current Time Adjustment	RTY	R/W	0~99	Year	52 54 59	
		RTM	R/W	1~12	Month	52 54 4D	
		RTD	R/W	1~31	Day	52 54 44	
		RTH	R/W	0~23	Hour	52 54 48	
		RTN	R/W	0~59	Minute	52 54 4E	
	Timer Mode	TMS	R/W	0	Everyday Mode	54 4D 53	
				1	Workday Mode		
				2	User Mode		

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
RTC	Enable	AEN	R/W	0~127	In User Mode: Set bit0 to 1: Sunday Enable Set bit1 to 1: Monday Enable Set bit2 to 1: Tuesday Enable Set bit3 to 1: Wednesday Enable Set bit4 to 1: Thursday Enable Set bit5 to 1: Friday Enable Set bit6 to 1: Saturday Enable In Everyday Mode: Set any bit0~6 to 1: Mon.~Sun. Enable In Workday Mode: Set bit0 to 1: Sunday Enable Set any bit1~5 to 1: Mon.~Fri. Enable Set bit6 to 1: Saturday Enable	41 45 4E	
	Disable	AEF	R/W	0~127	In User Mode: Set bit0 to 1: Sunday Disable Set bit1 to 1: Monday Disable Set bit2 to 1: Tuesday Disable Set bit3 to 1: Wednesday Disable Set bit4 to 1: Thursday Disable Set bit5 to 1: Friday Disable Set bit6 to 1: Saturday Disable In Everyday Mode: Set any bit0~6 to 1: Mon.~Sun. Disable In Workday Mode: Set bit0 to 1: Sunday Disable Set any bit1~5 to 1: Mon.~Fri. Disable Set bit6 to 1: Saturday Disable	41 45 46	

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
RTC	Sunday	SNH	R/W	0~23	Sunday On Hour	49 4E 48	
		SNM	R/W	0~59	Sunday On Minute	53 4E 4D	
		SFH	R/W	0~23	Sunday Off Hour	53 46 48	
		SFM	R/W	0~59	Sunday Off Minute	53 46 4D	
	Monday	NNH	R/W	0~23	Monday On Hour	4E 4E 48	
		NNM	R/W	0~59	Monday On Minute	4E 4E 4D	
		NFH	R/W	0~23	Monday Off Hour	4E 46 48	
		NFM	R/W	0~59	Monday Off Minute	4E 46 4D	
	Tuesday	ENH	R/W	0~23	Tuesday On Hour	45 4E 48	
		ENM	R/W	0~59	Tuesday On Minute	45 4E 4D	
		EFH	R/W	0~23	Tuesday Off Hour	45 46 48	
		EFM	R/W	0~59	Tuesday Off Minute	45 46 4D	
	Wednesday	DNH	R/W	0~23	Wednesday On Hour	44 4E 48	
		DNM	R/W	0~59	Wednesday On Minute	44 4E 4D	
		DFH	R/W	0~23	Wednesday Off Hour	44 46 48	
		DFM	R/W	0~59	Wednesday Off Minute	44 46 4D	
	Thursday	UNH	R/W	0~23	Thursday On Hour	55 4E 48	
		UNM	R/W	0~59	Thursday On Minute	55 4E 4D	
		UFH	R/W	0~23	Thursday Off Hour	55 46 48	
		UFM	R/W	0~59	Thursday Off Minute	55 46 4D	
	Friday	INH	R/W	0~23	Friday On Hour	49 4E 48	
		INM	R/W	0~59	Friday On Minute	49 4E 4D	
		IFH	R/W	0~23	Friday Off Hour	49 46 48	
		IFM	R/W	0~59	Friday Off Minute	49 46 4D	

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
RTC	Saturday	TNH	R/W	0~23	Saturday On Hour	54 4E 48	
		TNM	R/W	0~59	Saturday On Minute	54 4E 4D	
		TFH	R/W	0~23	Saturday Off Hour	54 46 48	
		TFM	R/W	0~59	Saturday Off Minute	54 46 4D	
Audio	Volume	VOL	R/W	0~100	volume	56 4F 4C	
	Bass	BAS	R/W	0~12	Bass (-6 ~ 6)	42 41 53	
	Treble	TRE	R/W	0~12	Treble (-6 ~ 6)	54 52 45	
	Balance	BAL	R/W	0~12	Balance (-6 ~ 6)	42 41 4C	
	Internal Speaker	INS	R/W	00	Internal Speaker Off	49 4E 53	
				01	Internal Speaker On		
	Mute	MUT	R/W	00	Mute Off	4D 55 54	
				01	Mute On		
OSD	Transparency	OST	R/W	0~12	OSD Transparency	4F 53 54	
	H Position	OSH	R/W	0~100	OSD H Position	4F 53 48	
	V Position	OSV	R/W	0~100	OSD V Position	4F 53 56	
	OSD Rotation	OSR	R/W	00	Landscape	4F 53 52	
				01	Portrait		
	OSD Language	OSL	R/W	00	English	4F 53 4C	
				01	Chinese		
	OSD Timeout	OSO	R/W	5~120	OSD Timeout. The value increments by five (5, 10, 15, 20..., 115, 120 seconds).	4F 43 4F	
Splash Screen	SPS	R/W	0	Off	53 50 53		
			1	On			

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
OSD	Message Box	MSB	R/W	0	Off	4D 53 42	
				1	On		
Other Control	Scaling	ASP	R/W	01	16:9	41 53 50	
				02	4:3		
				04	Auto		
		ZOM	R/W	0~10	Adjust overscan ratio	41 53 50	
	Baud Rate Adjustment	BRA	R/W	00	115200	42 52 41	
				01	38400		
				02	19200		
				03	9600		
	Power Saving Config	WFS	R/W	0	Wake on VGA	57 46 53	
				1	Wake on All		
				2	Never Sleep		
	Auto Scan	ATS	R/W	0	Off	41 54 53	
				1	Main		
	Pixel Orbit	IRF	R/W	0	Off	49 52 46	
				1	On		
	Smart Light Control	SLC	R/W	0	Off	53 4C 43	
				1	DCR		
2				Light Sensor			
Power LED	LED	R/W	0	Off	4C 45 44		
			1	On			

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark	
Other Control	HDMI RGB Color Range	HCR	R/W	00	Auto Detect	48 43 52		
				01	Full Range			
				02	Limited Range			
	Remote Control	RCU	W	14	MENU Key	52 43 55		
				04	INFO Key			
				02	UP Key			
				25	DOWN Key			
				01	LEFT Key			
				03	RIGHT Key			
				18	ENTER Key			
				05	EXIT Key			
				07	VGA Key			
				09	HDMI1 Key			
				12	HDMI2 Key			
				08	DISPLAYPORT Key			
				15	SOURCE Key			
				20	SCALING Key		52 43 55	
				00	MUTE Key			
				23	BRIGHT Key			
				24	CONTRAST Key			
30	AUTO Key							
29	VOLUME+ Key							
27	VOLUME- Key							

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark		
Other Control	Remote Control	ALL	W	00	Reset all	41 4C 4C			
				01	Reset all but communications (RS232 and LAN)				
		KLC	R/W	00	Un-lock keys	4B 4C 43			
				01	Lock keys				
		SER	R		Read Serial Number	53 45 52			
		MNA	R		Read Model Name	4D 4E 41			
		GVE	R		Read Firmware Version	47 56 45			
		RTV	R		Read RS232 table Version	52 54 56			
		GVS	W	0	Querying main scaler version	47 56 53			
				1	Querying sub mcu version				
				2	Querying network module version				
		Ethernet Setup	Network Enable	NWE	R/W	0	No	4E 57 45	
						1	Yes		
Dynamic IP	DIP		R/W	0	Disable	44 49 50			
				1	Enable				
Default	LDS		W	0	Load default settings (About 15 seconds.)	4C 44 53			
E-Mail Alert	PSA		R/W	0	Off (Power Status Alert)	50 53 41			
				1	On (Power Status Alert)				
	SSA		R/W	0	Off (Source Status Alert)	53 53 41			
				1	On (Source Status Alert)				
	SLA		R/W	0	Off (Signal Lost Alert)	53 4C 41			
				1	On (Signal Lost Alert)				

Main Item	Control Item	CMD	Type	Value / Reply (Decimal)	Content	CMD (HEX)	Remark
Ethernet Setup	Static IP Settings	IP1	R/W	0~255	Static IP Address 1	49 50 31	
		IP2	R/W	0~255	Static IP Address 2	49 50 32	
		IP3	R/W	0~255	Static IP Address 3	49 50 33	
		IP4	R/W	0~255	Static IP Address 4	49 50 34	
		MK1	R/W	0~255	Subnet Mask 1	4D 4B 31	
		MK2	R/W	0~255	Subnet Mask 2	4D 4B 32	
		MK3	R/W	0~255	Subnet Mask 3	4D 4B 33	
		MK4	R/W	0~255	Subnet Mask 4	4D 4B 34	
		GW1	R/W	0~255	Gateway 1	47 57 31	
		GW2	R/W	0~255	Gateway 2	47 57 32	
		GW3	R/W	0~255	Gateway 3	47 57 33	
		GW4	R/W	0~255	Gateway 4	47 57 34	
		FD1	R/W	0~255	DNS Address 1	46 44 31	
		FD2	R/W	0~255	DNS Address 2	46 44 32	
		FD3	R/W	0~255	DNS Address 3	46 44 33	
		FD4	R/W	0~255	DNS Address 4	46 44 34	
		SNS	W	0	Save Static IP Settings	53 4E 53	
		MAC	W	0~5	Querying MAC ID #0~#5	4D 41 43	

Example

Power Control and Input Source

Turn monitor power off [CMD: POW]

[Transmit] : PC → 07 01 02 50 4F 57 **00** 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 **00** 08 → PC

Turn monitor power on [CMD: POW]

[Transmit] : PC → 07 01 02 50 4F 57 **01** 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 **01** 08 → PC

Read Power Status from monitor [CMD: POW]

[Transmit] : PC → 07 01 01 50 4F 57 08 → Monitor

[Return] : Monitor → 07 01 00 50 4F 57 **XX** 08 → PC

XX = 0, the set is off. **XX** = 1, the set is on.

Display Adjustment

Read back light from monitor [CMD: BRI] (If the setting of back light is 80)

[Transmit] : PC → 07 0101 42 52 49 08 → Monitor

[Return] : Monitor → 07 01 00 42 52 49 **50** 08 → PC

Set back light 80 to monitor [CMD: BRI]

[Transmit] : PC → 07 01 02 42 52 49 **50** 08 → Monitor

[Return] : Monitor → 07 01 00 42 52 49 **50** 08 → PC

Set Contrast 30 to monitor [CMD: CON]

[Transmit] : PC → 07 01 02 43 4F 4E **1E** 08 → Monitor

[Return] : Monitor → 07 01 00 43 4F 4E **1E** 08 → PC

Read Contrast from monitor [CMD: CON] (If the monitor contrast setting is 50)

[Transmit] : PC → 07 0101 43 4F 4E 08 → Monitor

[Return] : Monitor → 07 01 00 43 4F 4E **32** 08 → Monitor

Scaling Adjustment

Set monitor to 4:3 [CMD: ASP]

[Transmit] : PC → 07 01 02 41 53 50 **02** 08 → Monitor

[Return] : Monitor → 07 01 00 41 53 50 **02** 08 → PC

Other Control

Adjust up to monitor [CMD: RCU]

[Transmit] : PC → 07 01 02 52 43 55 **02** 08 → Monitor

[Return] : Monitor → 07 01 00 52 43 55 **02** 08 → PC

Reset all to monitor [CMD: ALL]

[Transmit] : PC → 07 01 02 41 4C 4C **00** 08 → Monitor

[Return] : Monitor → 07 01 00 41 4C 4C **00** 08 → PC

Read serial number monitor [CMD: SER]

[Transmit] : PC → 07 01 01 53 45 52 08 → Monitor

[Return] : Monitor → 07 01 00 53 45 52 S(0) ... S(12) 08 → PC , S(0) ~ S(12): serial number in ASCII

Read firmware version monitor [CMD: GVE]

[Transmit] : PC → 07 01 01 47 56 45 08 → Monitor

[Return] : Monitor → 07 01 00 47 56 45 S(0) ... S(5) 08 → PC , S(0) ~ S(5): firmware version in ASCII

Accessing Planar's Technical Support Website

Go to www.planar.com/support to locate the following support documents and resources:

- User Guide
- RS232 User Manual
- Touchscreen drivers
- Standard warranties
- Planar support hotline number and email



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