

RS232C / LAN Command List
MODEL: Multi Touch Screen LCD Display TH-50/65/80LFB70

2015/12/10
Panasonic Corporation

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation	
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]			
Basic Controls	Power ON	PON	PON			0/1	Off/On	
	Power OFF	POF	POF	QPW	QPW:*			
	Input select	IMS:***	IMS	QMI	QMI:***	HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1	HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER /	
	Input select(toggle)	IMS	IMS					
	Volume	AVL:**	AVL					
	Volume up	AUU	AUU	QAV	QAV:**	00 ~ 63	0 ~ 63	
	Volume down	AUD	AUD					
	Audio mute	AMT:*	AMT	QAM	QAM:*	0/1	Off/On	
	Audio mute(toggle)	AMT	AMT					
	Video mute	VMT:*	VMT	QVM	QVM:*	0/1	Off/On	
	Video mute(toggle)	VMT	VMT					
Aspect select	DAM:****	DAM	QAS	QAS:****	ZOOM/FULL/JUST/NORM/ZOM2/ZOM3/SJST/SNOM/SFUL/14:9	Zoom/16:9/Just/4:3/Zoom2/Zoom3/Side cut Just/4:3 Side cut/4:3 Full/14:9		
Aspect select(toggle)	DAM	DAM						
Picture	Picture Mode	VPC:MEN***	VPC	QPC:MEN	QPC:MEN***	STD / DYN / CNM	Normal / Dynamic / Cinema	
	Backlight	VPC:BLT***	VPC	QPC:BLT	QPC:BLT***	000 ~ 100	000 ~ 100	
	Contrast	VPC:PIC***	VPC	QPC:PIC	QPC:PIC***	000 ~ 100	000 ~ 100	
	brightness	VPC:BLK***	VPC	QPC:BLK	QPC:BLK***	000 ~ 100	000 ~ 100	
	Colour	VPC:COL***	VPC	QPC:COL	QPC:COL***	000 ~ 100	000 ~ 100	
	Hue	VPC:TIN***	VPC	QPC:TIN	QPC:TIN***	000 ~ 100	000 ~ 100	
	Sharpness	VPC:SHP***	VPC	QPC:SHP	QPC:SHP***	-15 ~ 000 ~ +15(015)	-15 ~ 15	
	White balance	VPC:TMP***	VPC	QPC:TMP	QPC:TMP***	WRM / MID / COL	Warm / Normal / Cool	
	Frame creation	VPC:FRC*	VPC	QPC:FRC	QPC:FRC*	0 / 1 / 2 / 3	Off / Min / Mid / Max	
	Input level	VWB:ILV***	VWB	QWB:ILV	QWB:ILV***	-32 ~ 000 ~ +32(032)	-32 ~ 32	
	W/B High R	VWB:RDR***	VWB	QWB:RDR	QWB:RDR***	000 ~ 100	000 ~ 100	
	W/B High G	VWB:GDR***	VWB	QWB:GDR	QWB:GDR***	000 ~ 100	000 ~ 100	
	W/B High B	VWB:BDR***	VWB	QWB:BDR	QWB:BDR***	000 ~ 100	000 ~ 100	
	W/B Low R	VWB:RCT***	VWB	QWB:RCT	QWB:RCT***	000 ~ 100	000 ~ 100	
	W/B Low G	VWB:GCT***	VWB	QWB:GCT	QWB:GCT***	000 ~ 100	000 ~ 100	
	W/B Low B	VWB:BCT***	VWB	QWB:BCT	QWB:BCT***	000 ~ 100	000 ~ 100	
	Gamma	VWB:GMM**	VWB	QWB:GMM	QWB:GMM**	SC / 20 / 22 / 26	S-curve / 2.0 / 2.2 / 2.6	
	Memory delete	VPF:DEL**	VPF	-	-	01 ~ 08	Memory No.1 - Memory No.08	
	Memory load	VPF:LOD**	VPF	-	-	01 ~ 08	Memory No.1 - Memory No.08	
	Memory name change	VPF:NAM ** *...*	VPF	QPF:NAM **	QPF:NAM ** *...*	01 - 08 space! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	Memory No.01 - Memory No.08 Memory name(Max 40 Parameters)	
	Memory save	VPF:SAV ** *...*	VPF	-	-	01 - 08 space! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : ; < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } -	Memory No.01 - Memory No.08 Memory name(Max 40 Parameters)	
	Memory state	-	-	QPF:STA	QPF:STA*****	-/0 (Memory No.1- No.08)	Unused/Use	
	Sound	Speaker	AAC:OUT***	AAC	QAC:OUT	QAC:OUT***	SPO/EXT	Internal / External
		Sound Mode	AAC:MEN***	AAC	QAC:MEN	QAC:MEN***	STD(AUT)/DYN/CLR	Normal/Dynamic/Clear
		Bass	AAC:BAS***	AAC	QAC:BAS	QAC:BAS***	-15 ~ 000 ~ +15(015)	-15 ~ 15
		Mid	AAC:MID***	AAC	QAC:MID	QAC:MID***	-15 ~ 000 ~ +15(015)	-15 ~ 15
		Treble	AAC:TRE***	AAC	QAC:TRE	QAC:TRE***	-15 ~ 000 ~ +15(015)	-15 ~ 15
Balance		AAC:BAL***	AAC	QAC:BAL	QAC:BAL***	-30 ~ 000 ~ +30(030)	-30 ~ 30	
Surround		AAC:SUR***	AAC	QAC:SUR	QAC:SUR***	MON/OFF	On/Off	
Audio Out (PIP)		ASO:*	ASO	-	-	M/S	Main/Sub	
Left Channel		ASD:LCH**	ASD	QSD:LCH	QSD:LCH**	01~16	Channel 1 - Channel 16	
Right Channel		ASD:RCH**	ASD	QSD:RCH	QSD:RCH**	01~16	Channel 1 - Channel 16	
Sound Out		ASD:OUT*	ASD	QSD:OUT	QSD:OUT*	0/1	Off/On	
Level Meter	ASD:LMT*	ASD	QSD:LMT	QSD:LMT*	0/1/2	Off/1-8ch/9-16ch		
Pos./Size	H-Pos	DGE:HPO****	DGE	QGE:HPO	QGE:HPO****	-124 ~ 0000 ~ +124(0124)	-124 ~ 124	
	H-Size	DGE:HSZ****	DGE	QGE:HSZ	QGE:HSZ****	-124 ~ 0000 ~ +124(0124)	-124 ~ 124	
	V-Pos	DGE:VPO****	DGE	QGE:VPO	QGE:VPO****	-124 ~ 0000 ~ +124(0124)	-124 ~ 124	
	V-Size	DGE:VSZ****	DGE	QGE:VSZ	QGE:VSZ****	-062 ~ 0000 ~ +062(0062)	-62 ~ 62	
	Dot Clock	DGE:DCL****	DGE	QGE:DCL	QGE:DCL****	-032 ~ 0000 ~ +032(0032)	-32 ~ 32	
	Clock Phase	DGE:CLK****	DGE	QGE:CLK	QGE:CLK****	-016 ~ 0000 ~ +016(0016)	-16 ~ 16	
	Clamp Position	DGE:CLP****	DGE	QGE:CLP	QGE:CLP****	0000 ~ +127(0127)	0 ~ 127	
	1:1 Pixel Mode	DGE:DBD*	DGE	QGE:DBD	QGE:DBD*	0/1	Off/On	
	Over Scan	DGE:OVS*	DGE	QGE:OVS	QGE:OVS*	0/1	Off/On	
	Adjusting POS. /SIZE(H-Pos/H-Size/V-Pos/V-Size)	DGE:PSZ*****	DGE	QGE:PSZ	QGE:PSZ*****	-124 ~ 0000 ~ +124(0124),-124 ~ 0000 ~ +124(0124),-124 ~ 0000 ~ +124(0124),-062 ~ 0000	H-Pos(-124 - 0000 - +124(0124)),H-Size(-124 - 0000 - +124(0124)),V-Pos(-124 - 0000 - +124(0124)),V-Size(-062 - 0000 - +062(0062))	
	Auto Setup	DGE:ASU*	DGE	-	-	1 / 0	executes / interrupts	

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]		
Touch Screen Settings	Touch Screen	STS:TOS*	STS	QTS:TOS	QTS:TOS*	0 / 1	Off / On
	Flick menu bar	STS:FMB*	STS	QTS:FMB	QTS:FMB*	0 / 1	Off / On
	Quick Launch	STS:QUL*	STS	QTS:QUL	QTS:QUL*	0 / 1	Off / On
	Initial Background	STS:INB***	STS	QTS:INB	QTS:INB***	WHI / GRE / BLA	White / Green / Black
	Auto Save	STS:AUS*	STS	QTS:AUS	QTS:AUS*	0 / 1	Off / On
MULTI PIP Settings	Built-in Memory Setting	STS:BIM*	STS	QTS:BIM	QTS:BIM*	0 / 1	Off / On
	MULTI PIP	DWA:***	DWA	QDW	QDW:***	OFF / PIP 0 / 1 / 2 / 3	Off/Pic in Pic or Pic in WHITEBOARD Lower right/Lower left/Upper left/Upper right ※Mode:PIP Only
	PIP Mode	DWA:MOD***	DWA	QDW:MOD	QDW:MOD***	PIP / PIW	Pic in Pic / Pic in WHITEBOARD
	Sub Input position(Toggle change)	DWA:PIN	DWA	-	-	-	-
	Sub Input position(Direct change)	DWA:PIN*	DWA	-	-	0 / 1 / 2 / 3	Lower right / Lower left / Upper left / Upper right
	Sub Input size(Toggle change)	DWA:SIZ	DWA	-	-	-	-
Network Setup	Sub Input size(Direct change)	DWA:SIZ*	DWA	QDW:SIZ	QDW:SIZ*	1 / 2 / 3 / 4	(Aspect4:3 signal 480x360/720x540/960x720/1280x960 (Aspect16:9 signal)480x270/720x405/960x540/1280x720
	Swap	DWA:SWP	DWA	-	-	-	-
	Wired LAN (Network)	SSU:NET ***** ***** ***** *	SSU	QSU:NET	QSU:NET ***** ***** ***** *	000~255, 000~255, 000~255, 000~255 000~255, 000~255, 000~255, 000~255 000~255, 000~255, 000~255, 000~255 0/1	IP address Subnet mask Gateway DHCP : Off/On
	Wireless LAN(Select Network)	SSU:LWL***	SSU	QSU:LWL	QSU:LWL***	OFF / SDT / MDT / UR1 / UR2 / UR3	Off / S-DIRECT / M-DIRECT / USER1 / USER2 / USER3
	Wireless LAN (Network)	SSU:LTI ***** ***** ***** *	SSU	QSU:LTI	QSU:LTI ***** ***** ***** *	000~255,000~255,000~255,000~255 000~255,000~255,000~255,000~255 000~255,000~255,000~255,000~255 0/1	IP address Subnet mask Gateway DHCP : Off/On
	Wireless LAN (User name)	SSU:LNC*...*	SSU	QSU:LNC	QSU:LNC*...*	space! "#\$%&'()*+,-./0123456789:; <=>?@ABCDEFGHIJKLMN OPQRS TUVWXYZ[\]^_`abcdefghijklmnop qrstuvwxyz{|}~	User name (Max 8 Parameters)
	Name Change	SSU:LDN*...*	SSU	QSU:LDN	QSU:LDN*...*	space! "#\$%&'()*+,-./0123456789:; <=>?@ABCDEFGHIJKLMN OPQRS TUVWXYZ[\]^_`abcdefghijklmnop qrstuvwxyz{|}~	DISPLAY NAME(Max 8 Parameters)
	Multi-Live	SSU:LML	SSU	QSU:LML	QSU:LML*****	04MLT/04IDX/16IDX	4-screen multi style/4-screen index style/16-screen index style
	Live mode Cut In	SSU:LLI*	SSU	QSU:LLI	QSU:LLI*	0/1	Off/On
	WEB Control	SSU:LWC*	SSU	QSU:LWC	QSU:LWC*	0/1	Off/On
	AMX D.D.	SSU:ADD*	SSU	QSU:ADD	QSU:ADD*	0 / 1	Off/On
	Crestron Connected™	SSU:CRV*	SSU	QSU:CRV	QSU:CRV*	0 / 1	Off/On
	Reset	SSU:LRT	SSU	-	-	-	-
	Status(DISPLAY ID)	-	-	QSU:LDI	QSU:LDI*...*	space! "#\$%&'()*+,-./0123456789:; <=>?@ABCDEFGHIJKLMN OPQRS TUVWXYZ[\]^_`abcdefghijklmnop qrstuvwxyz{|}~	DISPLAY ID(Max 8 Parameters)
	Status(Antenna level)	-	-	QSU:LAL	QSU:LAL*	1~5	Antenna level
Port	SSU:LCP*****	SSU	QSU:LCP	QSU:LCP*****	01024-65535	Port	
DIGITAL LINK status	-	-	QSU:DLS	QSU:DLS * * -** -**	0 / 1 / 2 / 3 0 / 1 / 2 00 ~ 99 00 ~ 99	No link / DIGITAL LINK / LPM / LAN No HDMI / HDMI ON / HDCP ON Minimum Signal Quarity Maximum Signal Quarity	
Extron XTP	SSU:EXP*	SSU	QSU:EXP	QSU:EXP*	0 / 1	Off / On	
Memory Viewer Settings	View	SMS:VIE***	SMS	QMS:VIE	QMS:VIE***	THU / LIS	Thumbnail / List
	Sort	SMS:SOR***	SMS	QMS:SOR	QMS:SOR***	NAM / TYP / TIM	Name / Type / Time
	Autoplay	SMS:AUP*	SMS	QMS:AUP	QMS:AUP*	0 / 1	Off / On
	Interval	SMS:INT*	SMS	QMS:INT	QMS:INT*	0 / 1 / 2 / 3 / 4 / 5	5S / 10S / 15S / 30S / 60S / 120S
	Effect	SMS:EFF***	SMS	QMS:EFF	QMS:EFF***	OFF / RAN / WIL / WIR / WID / SPL / ZOO / FAD / BLI / CHW / SLI / SLO	Off / Random / Wipe left / Wipe right / Wipe down / Split / Zoom in / Fade / Blind / Checker wipe / Slide in / Slide out
Signal	Guide	SMS:GUI*	SMS	QMS:GUI	QMS:GUI*	0 / 1	Off / On
	3D Y/C Filter (NTSC)	SSG:YCS*	SSG	QSG:YCS	QSG:YCS*	0/1	Off/On
	Sync	SSG:SNC***	SSG	QSG:SNC	QSG:SNC***	GRN/HAV	VBS/On G(On Y)/Auto
	Colour system	SSG:COS***	SSG	QSG:COS	QSG:COS***	NTS/PAL/SCM/MNT/AUT	NTSC/PAL/SECAM/M.NTSC/Auto
	Cinema reality	SSG:DCR*	SSG	QSG:DCR	QSG:DCR*	0/1	Off/On
	P-NR (Limited choice)	SSG:VNR*	SSG	QSG:VNR	QSG:VNR*	0/1	Off/Min
	P-NR	SSG:VNREXT***	SSG	QSG:VNREXT	QSG:VNREXT***	OFF/MIN/MID/MAX	Off/Min/Mid/Max
	Block NR	SSG:BNR***	SSG	QSG:BNR	QSG:BNR***	OFF/MIN/MID/MAX	Off/Min/Mid/Max
	Mosquito NR	SSG:MNR***	SSG	QSG:MNR	QSG:MNR***	OFF/MIN/MID/MAX	Off/Min/Mid/Max
	Noise reduction	SSG:NRS***	SSG	QSG:NRS	QSG:NRS***	OFF/MIN/MID/MAX/ADV	Off/Min/Mid/Max/Advanced
	XGA Mode	SSG:XGA*	SSG	QSG:XGA	QSG:XGA*	1/2/3/4	1024x768 / 1280x768 / 1366x768 / Auto
	SDI Through	SSG:STH*	SSG	QSG:STH	QSG:STH*	0/1	Off/On
HDMI Range	SSG:HRC***	SSG	QSG:HRC	QSG:HRC***	VID / FUL / AUT	Video(16-235)/Full(0-255)/Auto	

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation	
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]			
S e t u p	Screensaver	Screensaver	OSP:SCR*	OSP	QSP:SCR	QSP:SCR*	0 / 1 / 2 / 3 / 4	Off / Scrolling bar only ON / Negative image ON / Overlay scrolling bar ON / White screen ON
		Function	SSC:FNC*	SSC	QSC:FNC	QSC:FNC*	0 / 1 / 2 / 3	Scrolling bar only / Negative image / Overlay scrolling bar / White screen
		Mode	SSC:MOD*	SSC	QSC:MOD	QSC:MOD*	0 / 1 / 2 / 3 / 4	Off / Interval / Time Designation / On / Standby after SCR Saver
		Interval	SSC:INT ****	SSC	QSC:INT	QSC:INT ****	0000 - 2359 0000 - 2359	Periodic Time : 00:00 - 23:59 Operation Time : 00:00 - 23:59
		Time Designation	SSC:TIM ****	SSC	QSC:TIM	QSC:TIM ****	0000 - 2359 0000 - 2359	Start Time : 00:00 - 23:59 Finish Time : 00:00 - 23:59
		Standby after SCR Saver	SSC:AOF ****	SSC	QSC:AOF	QSC:AOF ****	0000 - 2359	Screensaver duration : 00:00 - 23:59
		サイドパネル設定	SSC:SPC*	SSC	QSC:SPC	QSC:SPC*	0 / 1 / 2 / 3	Off / Low / Mid / High
	ECO Mode Settings	Wobbling	OSP:WOB*	OSP	QSP:WOB	QSP:WOB*	0 / 1	Off / On
		ECO Mode settings	SSU:ECS*	SSU	QSU:ECS	QSU:ECS*	0 / 1	Custom / On
		Power save	SSU:PSV*	SSU	QSU:PSV	QSU:PSV*	0 / 1 / 2	Off / On / Sensor
		HDMI1 Power management	SSU:D1H*	SSU	QSU:D1H	QSU:D1H*	0 / 1	Off / On
		HDMI2 Power management	SSU:D2H*	SSU	QSU:D2H	QSU:D2H*	0 / 1	Off / On
		PC Power management	SSU:DPM*	SSU	QSU:DPM	QSU:DPM*	0 / 1	Off / On
		DVI-D Power management	SSU:DPD*	SSU	QSU:DPD	QSU:DPD*	0 / 1	Off / On
		No signal power off	SSU:AOF*	SSU	QSU:AOF	QSU:AOF*	0 / 1	Off / On
	Input label	Input label (Current input)	SSU:ILA***	SSU	QSU:ILA	QSU:ILA***	NRM / DV1 / DV2 / DV3 / DV4 / BD1 / BD2 / BD3 / BD4 / CTV / VCR / STB / SKP	Default input name / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CTV / VCR / STB / SKIP
		Input label (Specified input)	SSU:ILA***+++	SSU	QSU:ILA	QSU:ILA***+++	*** : Specified input HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1 +++ : Input label NRM / DV1 / DV2 / DV3 / DV4 / BD1 / BD2 / BD3 / BD4 / CTV / VCR / STB / SKP	HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER / WHITEBOARD Default input name / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 /
	Function Button Settings	Function Button Settings	OSP:KFN + ***	OSP	QSP:KFN +	QSP:KFN + ***	1 / 2 ECO / REF / SIG / SUT / HM1 / HM2 / S1A / S1B / VD1 / YP1 / PC1 / DV1 / DLK / MG1 / NW1 / MV1 / WB1 / LNS / LML / OSH / MPI / MPS	Function1 / Function2 ECO Mode settings / Scrolling bar / Signal / OnOff Timer Setup / INPUT(HDMI1) / INPUT(HDMI2) / INPUT(SLOT A) / INPUT(SLOT B) / INPUT(VIDEO) / INPUT(COMPONENT) / INPUT(PC) / INPUT(DVI) / INPUT(DIGITAL LINK) / INPUT(Miracast) / INPUT(PanasonicAPPLICATION) / INPUT(MEMORY VIEWER) / INPUT(WHITEBOARD) / Network Setup / Multi-Live / AV Mute / MUI / T.LIP
		Function Button Guide	OSP:KFG*	OSP	QSP:KFG	QSP:KFG*	0 / 1	Off / On
	On/Off Timer Setup	Power ON Settings	TIM:PON*****	TIM	QIM:PON	QIM:PON*****	0 / 1, 0000 ~ 2359	Off / On, 00:00 - 23:59
		Power OFF Settings	TIM:POF*****	TIM	QIM:POF	QIM:POF*****	0 / 1, 0000 ~ 2359	Off / On, 00:00 - 23:59
	Day/Time Setup	Day	TIM:DAY***	TIM	QIM:DAY	QIM:DAY***	MON / TUE / WED / THU / FRI / SAT / SUN	MON / TUE / WED / THU / FRI / SAT / SUN
		Time	TIM:NOW0****	TIM	QIM:NOW	QIM:NOW0****	0000 ~ 2359	00:00 - 23:59
		Component/RGB-in select	SSU:CMP***	SSU	QSU:CMP	QSU:CMP***	YBR / RGB	Component / RGB
		DVI YUV/RGB select	SSU:DYR***	SSU	QSU:DYR	QSU:DYR***	YUV / RGB	YUV / RGB
		Monitor Out	SSU:MOT*	SSU	QSU:MOT	QSU:MOT*	0 / 1	Off / On
No activity power off		SSU:NAO*	SSU	QSU:NAO	QSU:NAO*	0 / 1	Off / On	
Menu Display Duration		SSU:MDT***	SSU	QSU:MDT	QSU:MDT***	005 / 010 / 015 / 020 / 025 / 030	5s / 10s / 15s / 20s / 25s / 30s	
OSD Brightness		SSU:OBR*	SSU	QSU:OBR	QSU:OBR*	1 / 2 / 3 / 4 / 5	1(Low) / 2 / 3 / 4 / 5(High)	
OSD Language		SSU:LNG***	SSU	QSU:LNG	QSU:LNG***	ENG/DEU/FRA/ITL/CHA/USA/ESP/JPN/RUS	English(UK) / German / French / Italian / Chinese / English(US) / Spanish / Japanese / Russian	
Function		TIW:FNC*	TIW	QIW:FNC	QIW:FNC*	1 / 0	On / Off	
Weekly Command Timer		Program Number	TIW:DPS **** *	TIW	-	-	MON/TUE/WED/THU/FRI/SAT/SUN 1-7	MONDAY / TUESDAY / WEDNESDAY / THURSDAY / FRIDAY / SATURDAY / SUNDAY PROGRAM1~PROGRAM7
		Program Number	TIW:WPS * * * * * * *	TIW	QIW:WPS	QIW:WPS * * * * * * *	1~7/ 1~7/ 1~7/ 1~7/ 1~7/ 1~7/ 1~7/	PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7--- PROGRAM1~PROGRAM7---
	Program Edit	TIW:PRG * ** **** ***	TIW	QIW:PRG * **	QIW:PRG * **	1~7 01~64 0000~2359/--- S01~S64/U01~U64/---	PROGRAM1~PROGRAM7 01~64 00:00~23:59/--- Standard Command 01~64/User Command 01~64/--- (Not Supported Standard Command 20,30,36,39)	
	User Command Edit	TIW:CMD *** *****	TIW	QIW:CMD ***	QIW:CMD *** *****	U01~U64 *****	User Command 01~64(Command number) User Command(Max 15 Parameters)	

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]		
Audio input select	Audio input select	SAI:V***A+++	SAI	QAI:V***	QAI:V***A+++	*** HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1 +++ HM1 / HM2 / SL1(S1A/S1B) / VD1 / PC1 / DL1 / NW1 / NAD	*** HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER / WHITEBOARD +++ HDMI1 / HDMI2 / SLOT(A/B) / AUDIO1(VIDEO or COMPONENT) / AUDIO2(DVI or PC) / DIGITAL LINK / NETWORK(Miracast or
		SAI:A+++	SAI	QAI	QAI:V***A+++	*** HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1 +++ HM1 / HM2 / SL1(S1A/S1B) / VD1 / PC1 / DL1 / NW1 / NAD	*** HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER / WHITEBOARD +++ HDMI1 / HDMI2 / SLOT(A/B) / AUDIO1(VIDEO or COMPONENT) / AUDIO2(DVI or PC) / DIGITAL LINK / NETWORK(Miracast or
Input Search	Input Search	ISH:FNC***	ISH	QSH:FNC	QSH:FNC***	ALL/PRI/OFF	All Inputs/Priority/Off
	Primary Input	ISH:PRI***	ISH	QSH:PRI	QSH:PRI***	HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / NW1 / NON	HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / PanasonicAPPLICATION / (NONE)
	Secondary Input	ISH:SCI***	ISH	QSH:SCI	QSH:SCI***	HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / NW1 / NON	HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / PanasonicAPPLICATION / (NONE)
Onscreen display	Onscreen display	OSP:OSD*	OSP	QSP:OSD	QSP:OSD*	0/1	Disable/Enable
	Initial INPUT	OSP:IIN***	OSP	QSP:IIN	QSP:IIN***	0FF / HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1	Off / HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER / WHITEBOARD
	Initial VOL level	OSP:IVL***	OSP	QSP:IVL	QSP:IVL***	0/1, 00 ~ 63	Off/On,volume: 0 ~63
	Maximum VOL level	OSP:MVL***	OSP	QSP:MVL	QSP:MVL***	0/1, 00 ~ 63	Off/On,maximum volume: 0 ~63
	INPUT lock	OSP:INL***	OSP	QSP:INL	QSP:INL***	0FF / HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / MG1 / NW1 / MV1 / WB1	Off / HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / Miracast / PanasonicAPPLICATION / MEMORY VIEWER / WHITEBOARD
	Button lock	OSP:BTL***	OSP	QSP:BTL	QSP:BTL***	OFF/MEN/ALL	Off/MENU&ENTER/On
	Remocon User level	OSP:RCM*	OSP	QSP:RCM	QSP:RCM*	0/1/2/3	Off/User1/User2/User3
	Off-timer function	OSP:OFT*	OSP	QSP:OFT	QSP:OFT*	0/1	Disable/Enable
	Initial Power Mode	OSP:IPM***	OSP	QSP:IPM	QSP:IPM***	NOR/PON/STB	Normal/On/Standby
	Display Size	DGE:SCN*	DGE	QGE:SCN	QGE:SCN*	0/1	Off/On
	Studio W/B	OSP:SWB*	OSP	QSP:SWB	QSP:SWB*	0/1	Off/On
	Studio Gain	OSP:SGA*	OSP	QSP:SGA	QSP:SGA*	0/1	Off/On
LAN Control Protocol	OSP:LPN***	OSP	QSP:LPN	QSP:LPN***	LP1 / LP2	Protocol 1 / Protocol 2	
RS-232C/LAN Information Timing	No Signal Warning	SIT:NSW*	SIT	QIT:NSW	QIT:NSW*	0 / 1	Off / On (If set to be "On", "QST:NSW1" command is sent if signal disconnected after "No Signal Warning Timing".)
	No Signal Warning Timing	SIT:SWT**	SIT	QIT:SWT	QIT:SWT**	01 ~ 60	01 ~ 60 (minutes)
	No Signal Warning Automatic command sending	-	-	-	QST:NSW*	0/1	1: If signal is disconnected, this command is sent after "No Signal Warning Timing". 0: When signal connected after "QST:NSW1" command, this command is sent
	No Signal Error	SIT:NSE*	SIT	QIT:NSE	QIT:NSE*	0 / 1	Off / On (If set to be "On", "QST:NSE1" command is sent if signal disconnected after "No Signal Error Timing".)
	No Signal Error Timing	SIT:SET**	SIT	QIT:SET	QIT:SET**	01 ~ 90	01 ~ 90 (minutes)
	No Signal Error Automatic command sending	-	-	-	QST:NSE*	0/1	1: If signal is disconnected, this command is sent after "No Signal Error Timing". 0: When signal connected after "QST:NSE1" command, this command is sent
	Temperature Waning	SIT:TPW*	SIT	QIT:TPW	QIT:TPW*	0 / 1	Off / On (If set to be "On", "QST:TO*" command is sent if temperature is shifted around "Temperature Warning Value" and "Temperature Warning Release Value".)
	Temperature Warning Value	SIT:TWS****	SIT	QIT:TWS	QIT:TWS****	-040 ~ 0000 ~ +069(0069)	-40 ~ 69 (Degrees Celsius) (Max value 80LFB70:69 / 65LFB70:64 / 50LFB70:69.)
	Temperature Warning Release Value	SIT:TWR****	SIT	QIT:TWR	QIT:TWR****	-040 ~ 0000 ~ +069(0069)	-40 ~ 69 (Degrees Celsius) (Max value 80LFB70:69 / 65LFB70:64 / 50LFB70:69.) (The lower value of Temperature Warning Value can be set)
	Temperature Warning Automatic command sending	-	-	-	QST:TO*	0/1	After power is set to on, it becomes "NORMAL-MODE" and mode shift by "Temperature Waning Value" and "Temperature Waning Release Value". 1: If temperature is over "Temperature Waning Value" in "NORMAL-MODE", this command is sent and go to "HIGH TEMPERATURE-MODE". 0: If temperature is under "Temperature Waning Release Value" in "HIGH TEMPERATURE-MODE", this command is sent and go to "NORMAL-
O p t i o n s	Slot power	OSP:SLP**	OSP	QSP:SLP	QSP:SLP**	ON/AT/OFF	On/Auto/Off
	Power On Screen Delay	OSP:POD**	OSP	QSP:POD	QSP:POD**	00~30	00(OFF),1-30
	DVI-D Power management mode	OSP:DPS*	OSP	QSP:DPS	QSP:DPS*	0 / 1	Low Power Mode / Standard Mode
	ClockDisplay	OSP:CLK*	OSP	QSP:CLK	QSP:CLK*	0/1	Off/On
	All Aspect	OSP:AAS*	OSP	QSP:AAS	QSP:AAS*	0/1	Off/On
	Auto Setup	OSP:ASU***	OSP	QSP:ASU	QSP:ASU***	AUT/BTN	Auto/Manual
	Rotate	OSP:ROT*	OSP	QSP:ROT	QSP:ROT*	0/1	Off/On
	Power On Message (No activity power off)	OSP:NAP*	OSP	QSP:NAP	QSP:NAP*	0/1	Off/On
	Power On Message (Power Management)	OSP:PMM*	OSP	QSP:PMM	QSP:PMM*	0/1	Off/On

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation	
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]			
O t h e r	Text Clear	XTD:CLR	XTD	-	-		Text Clear	
	Text display	Text display	XTD:NML *** ** * * * **	XTD	-	-	001 - 116 01 - 30 0/1/2/3/4/5/6/7/8/9 0/1/2/3/4/5/6/7/8/9 0/1/2/3 space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ( )	Horizontal display start position Vertical display start position Text color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Background color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Text size : Usually/Twice length/Twice width/Twice Display Strings : (Max 40 Parameters)
		Time out setting	XTD:OPT**	XTD	QTD:OPT	QTD:OPT**	01 - 99	Time out(Second)
		Text display(memory load)	XTD:REA*	XTD	-	-	1/2/3/4/5	Storage area
		Text Scrolling display	XTD:SCR *** ** * * * **	XTD	-	-	001 - 116 01 - 30 0/1/2/3/4/5/6/7/8/9 0/1/2/3/4/5/6/7/8/9 0/1/2/3 space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ( )	Horizontal display start position Vertical display start position Text color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Background color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Text size : Usually/Twice length/Twice width/Twice Display Strings : (Max 40 Parameters)
		Memory save	XTD:WRT * *** ** * * * **	XTD	QTD:WRT *	QTD:WRT * *** ** * * * **	1/2/3/4/5 001 - 116 01 - 30 0/1/2/3/4/5/6/7/8/9 0/1/2/3/4/5/6/7/8/9 0/1/2/3 space ! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9 ; : < = > ? @ A B C D E F G H I J K L M N O P Q R S T U V W X Y Z [\] ^ _ ` a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ( )	Storage area Horizontal display start position Vertical display start position Text color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Background color : Black/Red/Green/Yellow/Blue/Magenta/Cyan/White/Half-brightness/Transparency Text size : Usually/Twice length/Twice width/Twice Display Strings : (Max 40 Parameters)
	Sub Display Input select	ISS:***	ISS	QSI	QSI:***	HM1 / HM2 / SL1(S1A/S1B) / VD1 / YP1 / PC1 / DV1 / DL1 / NW1	HDMI1 / HDMI2 / SLOT(A/B) / VIDEO / COMPONENT / PC / DVI / DIGITAL LINK / PanasonicAPPLICATION	
	Sub Display Input select(Toggle)	ISS	ISS	-	-		Labels ON / OFF	
	Label display	DDS	DDS	-	-		Off/On	
	Audio Mute(for tuner)	AOC:*	AOC	-	-	0/1	OSD Clear	
	Clear OSD	VDO	VDO	-	-			
	Digital Zoom	DZM: * *** ** * * * **	DZM	QDZ * *** ** * * * **	QDZ * *** ** * * * **	0/1 1-4 1-5 1-5	Off/On Expansion rate Display position (length) Display position (side)	
		Off Timer	ZOT:**	ZOT	-	-	0-90	00 - 90 min
		Inquiry about detail of DIGITAL LINK status			QST:DLD	QST:DLD* *** * -** -** -** -** -** -** -**	0 / 1 / 2 / 3 000 ~ 255 0 / 1 / 2 -00 ~ -99 -00 ~ -99 -00 ~ -99 -00 ~ -99 -00 ~ -99 -00 ~ -99 -00 ~ -99 -00 ~ -99	No connect / Digital Link / LPM / Ethernet (Est. Cable Length)(m) (*) No HDMI / HDMI(No HDCP) / HDMI(HDCP) ChannelA Signal Quarity ChannelB Signal Quarity ChannelC Signal Quarity ChannelD Signal Quarity Minimum Signal Quarity Maximum Signal Quarity *No connect or less than 20 m -> '000'
Inquiry about No Signal Warning	-	-	QST:NSW	QST:NSW*	0 / 1	Normal/No Signal Warning (Reply "0" when No Signal Warning is set "OFF".)		
Inquiry about No Signal Error	-	-	QST:NSE	QST:NSE*	0 / 1	Normal/No Signal Error (Reply "0" when No Signal Error is set "OFF".)		
Inquiry about YFB series model name	-	-	QST:YFM	QST:YFM*****	MAX 10Characters	YFB Model Name Charactros (YFBModel NoConnected -> 'ER401')		
DIGITAL LINK Input Change (Main)	IMS:DL1***	IMS	QMI:DL1	QMI:DL1***	HD1 / HD2 / PC1 / PC2 / SVD / VID	HDMI1 / HDMI2 / COMPUTER 1 / COMPUTER 2 / S-VIDEO / VIDEO		
DIGITAL LINK Input Change (Sub)	ISS:DL1***	IMS	QSI:DL1	QSI:DL1***	HD1 / HD2 / PC1 / PC2 / SVD / VID	HDMI1 / HDMI2 / COMPUTER 1 / COMPUTER 2 / S-VIDEO / VIDEO		
YFB100	YFB100 VOLUME UP(+)	VXX:TRLS1=TR01:AU	VXX:TRLS1=TR01:AU	-	-		Volume up	
	YFB100VOLUME DOWN(-)	VXX:TRLS1=TR01:AU	VXX:TRLS1=TR01:AU	-	-		Volume down	
	YFB100 VOLUME Setting	VXX:TRLS1=TR01:AVL :***	VXX:TRLS1=TR01:AVL :***	-	-	000-063	000-063	
	YFB100 ASPECT Change	VXX:TRLS1=TR01:VS1	VXX:TRLS1=TR01:VS1	-	-		Aspect change	
	YFB100 Closed Caption Setting	VXX:TRLS1=TR01:OC C:*	VXX:TRLS1=TR01:OC C:*	-	-	0 / 1 / 2 / 3 / 4	0:OFF/1:CC1/2:CC2/3:CC3/4:CC4	

Category	Function	Control commands		Query commands		Parameters	Parameters Explanation
		Transmission Command[:Parameters]	Reply Command[:Parameters]	Transmission Command[:Parameters]	Reply Command[:Parameters]		
O t h e r	YFB100 Auto Setup	VXX:TRLS1=TR01:OA	VXX:TRLS1=TR01:OA	-	-		Start Auto Setup
	YFB100 SYSTEM SELECTOR Setting	VXX:TRLS1=TR01:OS	VXX:TRLS1=TR01:OS	-	-		SYSTEM SLECTOR Setting
	YFB100 MENU KEY Send	VXX:TRLS1=TR01:OM	VXX:TRLS1=TR01:OM	-	-		MENU KEY
	YFB100 ENTER KEY Send	VXX:TRLS1=TR01:OE	VXX:TRLS1=TR01:OE	-	-		ENTER KEY
	YFB100 UP KEY Send	VXX:TRLS1=TR01:OC	VXX:TRLS1=TR01:OC	-	-		UP KEY
	YFB100 DOWN KEY Send	VXX:TRLS1=TR01:OC	VXX:TRLS1=TR01:OC	-	-		DOWN KEY
	YFB100 LEFT KEY Send	VXX:TRLS1=TR01:OC	VXX:TRLS1=TR01:OC	-	-		LEFT KEY
	YFB100 RIGHT KEY Send	VXX:TRLS1=TR01:OC	VXX:TRLS1=TR01:OC	-	-		RIGHT KEY
	YFB100 RETURN KEY Send	VXX:TRLS1=TR01:OB	VXX:TRLS1=TR01:OB	-	-		RETURN KEY
	SOS History	-	-	QSS	QSS: **. **. **. **. **. **.	00 - FF 00 - F2 00 - F2 00 - F2 00 - F2 00 - F2 00 - F2	SOS generation frequency SOS information on the first time SOS information on the second times SOS information on the 3, 6, 9 ... times SOS information on the 4, 7, 10 ... times SOS information on the 5, 8, 11 ... Times
	SOS State	-	-	QSS:STS	QSS:STS***	NON EXT ERR	No SOS History With SOS History Of SOS
	Signal frequency	-	-	QFR	QFR: H***. V***.	000.0 - 999.9 000.0 - 999.9	H-Freq. (KHz) V-Freq. (Hz)
	Signal name	-	-	QSF	QSF:M*****	M-1125(1080)/60i *Example	Signal Format
	Model Information	-	-	QMN	QMN: ** * **	80/65/50 F 12	80/65/50 Model : FHD Series
	Version(MONITOR-MCU)	-	-	QRV	QRV: *.*.*.* +*+*+*	1.0000 LFB70	MONITOR MCU Version Series
Version(MONITOR-EEPROM)	-	-	QRV:EEP	QRV:EEP**.*	00.01~	MONITOR EEPROM Version	
Serial number	-	-	QSN	QSN*...*	space!"#\$%&'()*+,-./0123456789:; <=>?@ABCDEFGHIJKLMN OPQRS TUVWXYZ[\]^_`abcdefghijklmnop qrstuvwxyz{|}-	Serial number(Max 15 Parameters)	

Protocol

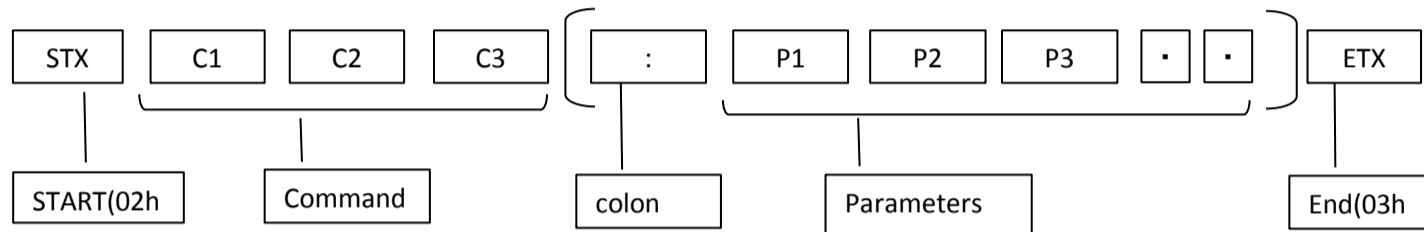
Communication parameters

Signal level	RS-232C compliant
Synchronization method	Asynchronous
Baudrate	9600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
Flow control	None

type of cable : straight cable

Basic format for control data:

The transmission of control data starts with a STX signal, followed by the command, the parameters, and lastly an ETX signal in that order. If there are no parameters, then the parameter signal does not need to be sent.



	00	10	20	30	40	50	60	70	
00		DE		0	@	P		p	Power on
01	SH	D1	!	1	A	Q	a	q	
02	SX	D2	"	2	B	R	b	r	Charactor
03	EX	D3	#	3	C	S	c	s	
04	ET	D4	\$	4	D	T	d	t	Binary
05	EQ	NK	%	5	E	U	e	u	
06	AK	SN	&	6	F	V	f	v	Picture+85
07	BL	EB	'	7	G	W	g	w	
08	BS	CN	(8	H	X	h	x	Caractor
09	HT	EM	)	9	I	Y	i	y
0A	LF	SB	*	:	J	Z	j	z	Binary
0B	HM	EC	+	;	K	[	k	{
0C	CL	→	,	<	L	¥	l	|	
0D	CR	←	-	=	M	]	m	}
0E	SO	↑	.	>	N	^	n	~	
0F	SI	↓	/	?	O	_	o	°	

Interval time from command to response : under 100msec

S P O N E

0 5 4 4 0

ST V P C : P I C O 8 5 ET

02 56 50 43 3A 50 49 43 30 38 35 03

通信規約

Dec,2015
Panasonic Corporation

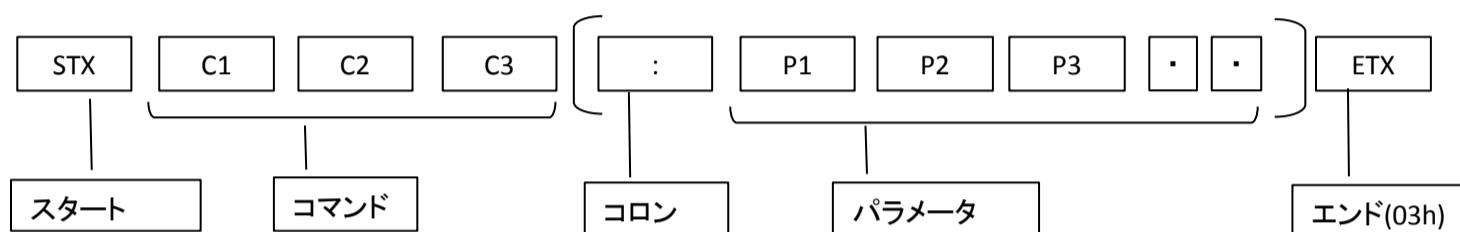
通信条件

信号レベル	RS-232C準拠
同期方式	調歩同期(非同期)
ボーレート	9600 bps
パリティなし	なし
キャラクター長	8ビット
ストップビット	1ビット
フロー制御	なし

ケーブル種: ストレート

基本フォーマット:

データは、「STX」、「コマンド」、「パラメーター」、「ETX」の順に送信する。パラメーターを必要としないコマンドを送信する場合は、コロン(:)を付加しないこと。



	00	10	20	30	40	50	60	70	
00		DE		0	@	P		p	電源オンコマンド
01	SH	D1	!	1	A	Q	a	q	
02	SX	D2	"	2	B	R	b	r	キャラクタ
03	EX	D3	#	3	C	S	c	s	
04	ET	D4	\$	4	D	T	d	t	バイナリ
05	EQ	NK	%	5	E	U	e	u	
06	AK	SN	&	6	F	V	f	v	ピクチャー +85設定
07	BL	EB	'	7	G	W	g	w	
08	BS	CN	(8	H	X	h	x	キャラクタ
09	HT	EM	)	9	I	Y	i	y
0A	LF	SB	*	:	J	Z	j	z	バイナリ
0B	HM	EC	+	;	K	[	k	{
0C	CL	→	,	<	L	¥	l	|	
0D	CR	←	-	=	M	]	m	}
0E	SO	↑	.	>	N	^	n	~	
0F	SI	↓	/	?	O	_	o	°	

コマンド応答時間: 200ミリ秒未満

電源オンコマンド

キャラクタ ST P O N ET

バイナリ 02 50 4F 4E 03

ピクチャー +85設定

キャラクタ ST V P C : P I C O 8 5 ET

バイナリ 02 56 50 43 3A 50 49 43 30 38 35 03