

RS232C / LAN Command List
MODEL: TH-84/98LQ70, TH-84/98LQ70L

2015/6/17
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 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4)	
	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:****	FULL/NORM/ZOOM/ZOM2/	Full/Normal/Zoom1/Zoom2	
	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***	000 ~ 100	000 ~ 100	
	Gamma	VWB:GMM**	VWB	QWB:GMM	QWB:GMM**	20 / 22 / 24 / 26	2.0 / 2.2 / 2.4 / 2.6	
	Colour_temperature	VPC:TMP***	VPC	QPC:TMP	QPC:TMP***	030 , 031 , 032 , ~ 113, 114 ,115, U01/U02/U03	3000K , 3100K , 3200K ~ 11300K, 11400K , 11500K (100K/unit), USER1 / USER2 / USER3	
	R gain	VWB:RGN****	VWB	QWB:RGN	QWB:RGN****	0000 ~ 0255	000~255	
	G gain	VWB:GGN****	VWB	QWB:GGN	QWB:GGN****	0000 ~ 0255	000~255	
	B gain	VWB:BGN****	VWB	QWB:BGN	QWB:BGN****	0000 ~ 0255	000~255	
	R bias	VWB:RBS****	VWB	QWB:RBS	QWB:RBS****	-120 ~ 0120	-120~120	
	G bias	VWB:GBS****	VWB	QWB:GBS	QWB:GBS****	-120 ~ 0120	-120~120	
	B bias	VWB:BBS****	VWB	QWB:BBS	QWB:BBS****	-120 ~ 0120	-120~120	
	Frame creation	VPC:FRC*	VPC	QPC:FRC	QPC:FRC*	0 / 1	Off/On	
	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 function	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	Output selct	AAC:OUT***	AAC	QAC:OUT	QAC:OUT***	SPO/LNO	Internal / Lineout	
	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	
	4 Input multi display audio select	AAC:4IM*	AAC	QAC:4IM	QAC:4IM*	0 / 1 / 2 / 3 / 4	0:OFF / 1:Upper Left / 2: Upper Right / 3: Lower Left / 4: Lower Right	
	SDI Sound Output	Group select	ASD:GSL*	ASD	QSD:GSL	QSD:GSL*	0/1	0: 1-8ch / 1: 9-16ch
		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	
Position	H-position	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-position	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	
	Over scan	DGE:OVS*	DGE	QGE:OVS	QGE:OVS*	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]			
Position	Adjusting POS. /SIZE(H-position/H-size/V-position/V-size)	DGE:PSZ***** *	DGE	QGE:PSZ	QGE:PSZ***** *	-124 ~ 0000 ~ +124(0124),-124 ~ 0000 ~ +124(0124),-124 ~ 0000 ~ +124(0124),-062 ~ 0000 ~ +062(0062)	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	
Network settings	LAN setup	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	
	Name change	SSU:LDN*...*	SSU	QSU:LDN	QSU:LDN*...*	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 { | } -	DISPLAY NAME(Max 8 Parameters)	
	AMX D.D.	SSU:ADD*	SSU	QSU:ADD	QSU:ADD*	0 / 1	Off/On	
	Network ID	SSU:LID**	SSU	QSU:LID	QSU:LID**	00-99	NETWORK ID	
	DUPLEX	SSU:LSP****	SSU	QSU:LSP	QSU:LSP****	AUTO / 100H / 100F	Auto/100Base-Half/100Base-full	
	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	
	Signal	Sync	SSG:SNC***	SSG	QSG:SNC	QSG:SNC***	GRN/HAV	On G(On Y)/Auto
	Noise reduction	SSG:NRS***	SSG	QSG:NRS	QSG:NRS***	OFF/MIN/MID/MAX	Off/Min/Mid/Max	
	XGA Mode	SSG:XGA*	SSG	QSG:XGA	QSG:XGA*	1/2/3/4	1024x768 / 1280x768 / 1366x768 / Auto	
	Signal Range	SSG:HRC***	SSG	QSG:HRC	QSG:HRC***	VID / FUL / AUT	Video(16-235)/Full(0-255)/Auto	
	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	
	Stream setting	SSG:STM***	SSG	QSU:STM	QSU:STM***	AUT/SST	Auto/Single stream	
	Input level	VWB:ILV***	VWB	QWB:ILV	QWB:ILV***	-32 ~ 000 ~ +32(032)	-32 ~ 32	
	1080i/PsF	SSG:IPF*	SSG	QSG:IPF	QSG:IPF*	0/1/2	0:AUTO / 1: 1 / 2:Psf	
	1080i/PsF	SSC:MOD*	SSC	QSC:MOD	QSC:MOD*	0 / 1 / 2 / 3 / 4	Off / Interval / Time Designation / On / Standby after SCR Saver	
	Screensaver	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	
Side panel		SSC:SPC*	SSC	QSC:SPC	QSC:SPC*	0 / 1 / 2 / 3	Off / Low / Mid / High	
ECO mode settings	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	
	HDMI3 power management	SSU:D3H*	SSU	QSU:D3H	QSU:D3H*	0 / 1	Off / On	
	HDMI4 power management	SSU:D4H*	SSU	QSU:D4H	QSU:D4H*	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 *** : Specified input	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***+++	HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B) +++ : Input label NRM / DV1 / DV2 / DV3 / DV4 / BD1 / BD2 / BD3 / BD4 / CTV / VCR / STB / SKP INP / MEM / ACT	HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) Default input name / DVD1 / DVD2 / DVD3 / DVD4 / Blu-ray1 / Blu-ray2 / Blu-ray3 / Blu-ray4 / CTV / VCR / STB / (Skin) INPUT / MEMORY LOAD / ACTION&MENU	
Function button settings	Function group	OSP:KGR***	OSP	QSP:KFN	QSP:KFN	+	Function1 ~ Function9, Function 0	
	Function button settings	OSP:KFN + ***	OSP	QSP:KFN + ***	QSP:KFN + ***	+:Function Key Number 1 ~ 9 / 0 ***:INPUT/ACTION& MENU (ACTION& MENU) ECO / SIG / SUT / LNS / OSH / 4MT (INPUT) HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	ECO Mode settings / Signal / OnOff Timer Setup / Network Setup / AV Mute / 4 Input MULTI Display Settings INPUT(HDMI1) / INPUT(HDMI2) / INPUT(HDMI3) / INPUT(HDMI4) / INPUT(Display Port) / INPUT(DIGITAL LINK) / INPUT(DVI) / INPUT(PC) / INPUT(SLOT1 SLOT1A/SLOT 1B) /INPUT(SLOT2 , SLOT2A/SLOT 2B) /	
	Function button guide	OSP:KFG*	OSP	QSP:KFG	QSP:KFG*	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]			
S e t u p	On/Off timer settings	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 settings	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
	SETUP	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 / 015 / 030 / 060 / 120 / 180	5sec - 180 sec
		OSD position	SSU:OPS*	SSU	QSU:OPS	QSU:OPS:	0 / 1	0 : Right / 1 : Left
		Display orientation	SSU:DOR*	SSU	QSU:DOR	QSU:DOR*	0 / 1	Horizontal / Vertical
		High altitude mode	SSU:HAL*	SSU	QSU:HAL	QSU:LNG***	0 / 1	0:OFF / 1: ON
		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
		HDMI 4K Interface	SSU:H4K***	SSU	QSU:H4K	QSU:H4K***	SNG / DUL	SNG:Single / DUL: Dual
	SDI settings	Interface[SLOT1/SLOT2]	SSD:IFQ***	SSD	QSD:IFQ	QSD:IFQ***	QUD / SAD	QUD:Quad / SAD:Single And Dual
		Interface[SLOT1]	SSD:IF1***	SSD	QSD:IF1	QSD:IF1***	SNG / DUL	SNG:Single / DUL: Dual
		Interface[SLOT2]	SSD:IF2***	SSD	QSD:IF2	QSD:IF2***	SNG / DUL	SNG:Single / DUL: Dual
		Audio select	SSD:SL+AUS*	SSD	QSD:SL+AUS	QSD:SL+AUS*	+ : SLOT 1 / 2 * : Sound Input Select 1 / 2 / 3 / 4	SLOT1 / SLOT2 SDI 1 / SDI 2 / SDI 3 / SDI 4
		Format	SSD:IN+FOR****	SSD	QSD:IN+FOR	QSD:IN+FOR***	+ : SDI INPUT 1 / 2 / 3 / 4 **** : Signal Format SDSG / 1280 / 1920 / 2048 / 3840 / 4096	SDI 1 / SDI 2 / SDI 3 / SDI 4 SD Signal / 1280 x 720 / 1920 x 1080 or 1920 x 2160 / 2048 x 2160 / 3840 x 2160 / 4096 x 2160
		4K division	SSD:IN+4KD***	SSD	QSD:IN+4KD	QSD:IN+4KD***	+ : SDI INPUT 1 / 2 / 3 / 4 **** : SQU / ITL	SDI 1 / SDI 2 / SDI 3 / SDI 4 SQU:Square / ITL:Interleave
		SDI mode	SSD:IN+SDM***	SSD	QSD:IN+SDM	QSD:IN+SDM***	+ : SDI INPUT 1 / 2 / 3 / 4 **** : 15G / 3GA / 3BL / 3BD	SDI 1 / SDI 2 / SDI 3 / SDI 4 15G:1.5G HD-SDI / 3GA:3G LEVEL A / 3BL:3G LEVEL B-DL / 3BD:3G LEVEL B-DS
		Sampling structure	SSD:IN+SMP***	SSD	QSD:IN+SMP	QSD:IN+SMP***	+ : SDI INPUT 1 / 2 / 3 / 4 *** 422 / 444	SDI 1 / SDI 2 / SDI 3 / SDI 4 422: 4:2:2 / 444: 4:4:4
	Bit depth	SSD:IN+BIT***	SSD	QSD:IN+BIT	QSD:IN+BIT***	+ : SDI INPUT 1 / 2 / 3 / 4 **** 008 / 010 / 012	SDI 1 / SDI 2 / SDI 3 / SDI 4 008: 8bit / 010: 10bit / 012: 12bit	
	Colour space	SSD:IN+COL***	SSD	QSD:IN+COL	QSD:IN+COL***	+ : SDI INPUT 1 / 2 / 3 / 4 *** : YUV / RGB / XYZ	SDI 1 / SDI 2 / SDI 3 / SDI 4 YUV:YCbCr / RGB: RGB / XYZ: XYZ	
	4 Input multi display settings	4 input multi display	SSU:4IM*	SSU	QSU:4IM	QSU:4IM*	0 / 1	Off / On
		Input for every position (Select FULL <-> MULT)	SSU:4IM + *** (ZZZ)	SSU	QSU:4IM+	QSU:4IM + *** (FUL)	1-4 HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1	1:Upper Left / 2: Upper Right / 3: Lower Left / 4: Lower Right HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC (NONE): Position & Input setting in 4 input multi display. "FUL" : Position & Input setting in 4 input multi display and expand the input of the specified position.
	O p t i o n s	Weekly command timer	Function	TIW:FNC*	TIW	QIW:FNC	QIW:FNC*	1 / 0	On / Off
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 8,9,56)
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 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B) +++ HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B) / NAD	*** HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) +++ HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / AUDIO (DVIorPC) / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) / No AUDIO	
		SAI:A+++	SAI	QAI	QAI:V***A+++	*** HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B) +++ HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B) / NAD	*** HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) +++ HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / AUDIO (DVIorPC) / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) / No AUDIO	
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 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / S1A,S1B / S2A,S2B / NON	HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) / (NONE)	
	Secondary input	ISH:SCI***	ISH	QSH:SCI	QSH:SCI***	HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / S1A,S1B / S2A,S2B / NON	HDMI1 / HDMI2 / HDMI3 / HDMI4 / Display Port / DIGITAL LINK / DVI / PC / SLOT1(SDI1,SDI2) / SLOT2(SDI3,SDI4) / (NONE)	
Options 1/2	Onscreen display	OSP:OSD*	OSP	QSP:OSD	QSP:OSD*	0/1	Disable/Enable	
	Initial input	OSP:IIN***	OSP	QSP:IIN	QSP:IIN***	OFF / HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	Off / HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	
	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***	OFF / HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	Off / HM1 / HM2 / HM3 / HM4 / DP1 / DL1 / DV1 / PC1 / SL1(S1A,S1B) / SL2(S2A,S2B)	
	Button lock	OSP:BTL***	OSP	QSP:BTL	QSP:BTL***	OFF/MEN/ALL	Off/MENU&ENTER/On	
	Controller 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	
	Local dimming	OSP:LDM*	OSP	QSP:LDM	QSP:LDM*	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 (Not send command if set Off.)
		No signal warning timing	SIT:SWT**	SIT	QIT:SWT	QIT:SWT**	01 ~ 60	01 ~ 60 (minutes)
No signal error		SIT:NSE*	SIT	QIT:NSE	QIT:NSE*	0 / 1	Off / On (Not send command if set Off.)	
No signal error timing		SIT:SET**	SIT	QIT:SET	QIT:SET**	01 ~ 90	01 ~ 90 (minutes)	
Temperature warning		SIT:TPW*	SIT	QIT:TPW	QIT:TPW*	0 / 1	Off / On (Not send command if set Off.)	
Options 2/2	Power on screen delay	OSP:POD**	OSP	QSP:POD	QSP:POD**	00-30,AT	00(OFF),1-30,AUTO	
	DVI-D power management mode	OSP:DPS*	OSP	QSP:DPS	QSP:DPS*	0 / 1	Low Power Mode / Standard Mode	
	HDMI power management mode	OSP:HPS*	OSP	QSP:HPS	QSP:HPS*	0 / 1	Low Power Mode / Standard Mode	
	Clock display	OSP:CLK*	OSP	QSP:CLK	QSP:CLK*	0/1	Off/On	
	Auto setup	OSP:ASU***	OSP	QSP:ASU	QSP:ASU***	AUT/BTN	Auto/Manual	
	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	
	Label display	DDS	DDS	-	-	-	Labels ON / OFF	
Audio Mute(for tuner)	AOC:*	AOC	-	-	0/1	Off/On		
Clear OSD	VDO	VDO	-	-	-	OSD Clear		
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	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 (4 Input Mult Upper Left)	SSU:4IM1DL1***	SSU	QSU:4IM1DL1	QSU:4IM1DL1***	HD1 / HD2 / PC1 / PC2 / SVD / VID	HDMI1 / HDMI2 / COMPUTER 1 / COMPUTER 2 / S-VIDEO / VIDEO		
DIGITAL LINK Input Change (4 Input Mult Upper Right)	SSU:4IM2DL1***	SSU	QSU:4IM2DL1	QSU:4IM2DL1***	HD1 / HD2 / PC1 / PC2 / SVD / VID	HDMI1 / HDMI2 / COMPUTER 1 / COMPUTER 2 / S-VIDEO / VIDEO		
DIGITAL LINK Input Change (4 Input Mult Lower Left)	SSU:4IM3DL1***	SSU	QSU:4IM3DL1	QSU:4IM3DL1***	HD1 / HD2 / PC1 / PC2 / SVD / VID	HDMI1 / HDMI2 / COMPUTER 1 / COMPUTER 2 / S-VIDEO / VIDEO		
DIGITAL LINK Input Change (4 Input Mult Lower Right)	SSU:4IM4DL1***	SSU	QSU:4IM4DL1	QSU:4IM4DL1***	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		

Protocol

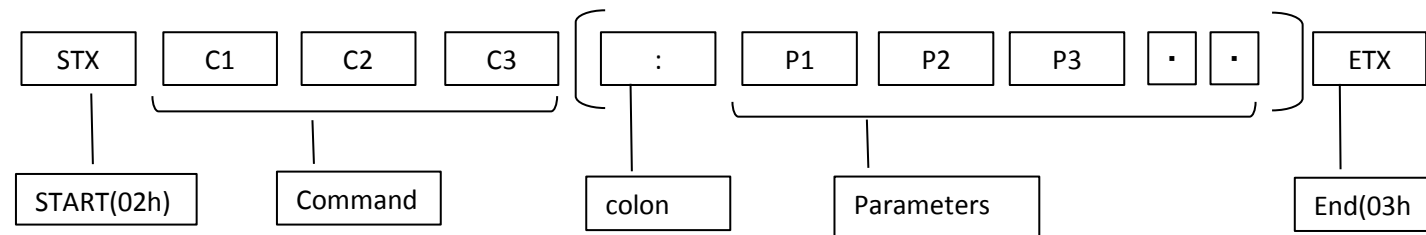
Communication parameters

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

Power on

Charactor STX P O N ET

Binary 02 50 4F 4E 03

Picture+85

Caractor STX V P C : P I C O 8 5 ET

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

Interval time from command to response: under 100msec

Notes:

- If an incorrect command is sent by mistake, this unit will send an "ER401" command back to the computer.
- With the power off, this display responds to PON command only.
- If customer send multiple commands, be sure to wait for the response for the first command to come before sending the next command.
- If response was not come, be sure to retry after 1000msec.
- After PON command, be sure to wait 15sec to next command.

通信規約

June,2015
Panasonic Corporation

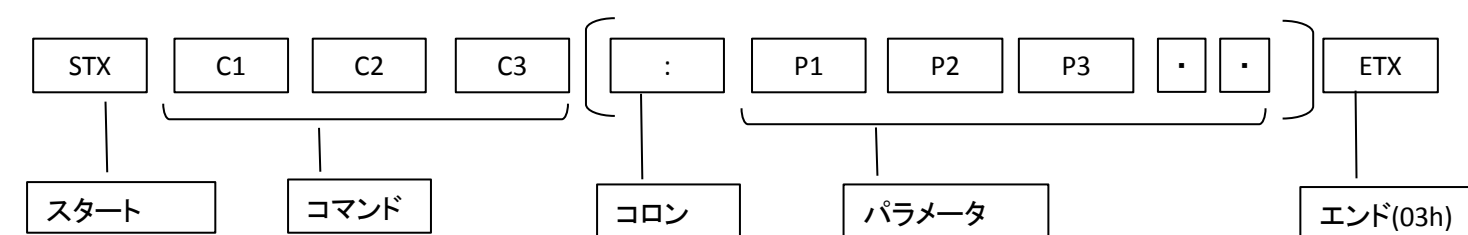
通信条件

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

電源オンコマンド

キャラクター STX P O N ET

バイナリ 02 50 4F 4E 03

ピクチャー+85設定

キャラクター STX 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

コマンド応答時間: 200ミリ秒未満

その他ルール:

- 間違ったコマンドを受信すると、「ER401」という応答コマンドを送信する。
- 電源「スタンバイ」状態(リモコンで電源「切」)中は「PON」コマンド以外の動作は保証なし。
- 複数コマンドの送信時は、送信側がモニター応答を受け取ってから、次のコマンドを送信することを想定。
- 1秒間応答がない場合に、送信機側からリトライ送信する事を想定
- PONコマンド後、15秒以上経過した後に、送信機側から次のコマンドを送信する事を想定