# **Technical information**

# **Using PJLink function**

The network function of this projector supports the PJLink class 1 and class 2, and setting of the projector or querying of the projector status can be performed from the computer using the PJLink protocol.

# Note

• To use the PJLink function with the projector, it is necessary to set the password of the administrator account. (→ page 171)

# **Control commands**

The following table lists the PJLink protocol commands that can be used to control the projector.

• x characters in tables are non-specific characters.

Class	Command	Control details	Parameter/response string	Remark		
4	DOWD		0	Standby		
1	POWR	Power supply control	1	Power on		
		Power supply status query	0	Standby		
1	POWR?		1	Power on		
			2	Preparing for switching off the projector		
	INPT	Input selection	31	HDMI1		
1, 2	INPT?	Input selection query	32	HDMI2		
			33	DIGITAL LINK		
			34	SDI		
1	AVMT	Shutter control	30	Shutter function disabled (shutter: opened)		
	AVMT?	Shutter status query	31	Shutter func	tion enabled (shutter: closed)	Γ
		Error status query	xxxxxx	1st byte	Indicates fan errors, and returns 0 - 2.	0 = No error is detected
	ERST?			2nd byte	Indicates light source errors, and returns 0 or 2.	<ul><li>1 = Warning</li><li>2 = Error</li></ul>
1				3rd byte	Indicates temperature errors, and returns 0 - 2.	
				4th byte	Returns 0.	
				5th byte	Indicates filter errors, and returns 0 - 2.	
				6th byte	Indicates other errors, and returns 0 - 2.	
1	LAMP?	Light source status query	AAAA X BBBB Y	AAAA: Light source 1 runtime X: 0 = Light source 1 off, 1 = Light source 1 on BBBB: Light source 2 runtime Y: 0 = Light source 2 off, 1 = Light source 2 on		
1, 2	INST?	Input selection list query	31 32 33 34	_		
1	NAME ?	Projector name query	xxxxx	Returns the name set in the [NETWORK] menu → [PROJECTOR NAME].		
1	INF1 ?	Manufacturer name query	Panasonic	Returns manufacturer name.		
1	INF2 ?	Model name query	PT-MZ20K PT-MZ17K PT-MZ14K PT-MZ11K	Returns model name.		
1	INF0 ?	Other information queries	xxxxx	Returns information such as version number.		
1	CLSS ?	Class information query	2	Returns class for PJLink.		
2	SNUM?	Serial number query	xxxxxxxx	Returns serial number.		
2	SVER?	Software version query	xxxxxxxx	Returns version number.		
2	INNM ?	Input terminal name query	31 / HDMI1 32 / HDMI2 33 / DIGITAL LINK 34 / SDI	Returns input terminal name.		

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Class	Command	Control details	Parameter/response string	Remark	
2	IRES ?	Input signal resolution query	AAAAxBBBB	AAAA: Horizontal resolution BBBB: Vertical resolution	
2	RRES ?	Recommended resolution query	1920 x 1200	Returns display resolution.	
2	FILT?	Filter runtime inquiry	xxxxx	Returns the runtime of the filter.	
2	RFIL?	Filter replacement model number inquiry	ET-RFM100	Returns the filter replacement model number.	
2	FREZ	Freeze control	0	Freeze clear	
	FREZ ?	Freeze status query	1	Freeze (stop)	
2	POWR	Cooling notification	0	Notifies when the power is turned off.	
		Warmup notification	1	Notifies when the power is turned on.	
2	ERST	Error notification	xxxxxx	Notifies when an error occurs.	
2	LKUP	Link up notification	xx:xx:xx:xx:xx	Notifies the MAC address when the PJLink communication becomes possible.	
	INPT	Input switch completion notification	31	HDMI1	
2			32	HDMI2	
			33	DIGITAL LINK	
			34	SDI	
2	SRCH	Projector search	ACKN=xx:xx:xx:xx:xx	The projector connected to the same network that can communicate with PJLink will respond with its MAC address.	

### PJLink security authentication

A PJLink password for security authentication procedure is required for communication of the PJLink command. The PJLink password can be set in the [NETWORK] menu → [PJLink] → [PJLink PASSWORD] (→ page 175), or in "[Set up password] page (when accessed by administrator account)" (→ page 212) of the web control screen. When communicating the PJLink command without authentication procedure, set the PJLink password as blank. The factory default setting of the PJLink password is blank.

• For specifications related to PJLink, visit the website of Japan Business Machine and Information System Industries Association.

URL http://pjlink.jbmia.or.jp/english/

# **Using Art-Net function**

Since the network function of the projector supports the Art-Net function, you can control the projector settings with the DMX controller and application software using the Art-Net protocol.

#### Note

- To use the Art-Net function with the projector, it is necessary to set the password of the administrator account. (→ page 171)
- The Art-Net function cannot be used using the "IPv6" protocol. Set the [NETWORK] menu → [WIRED LAN] → [IP VERSION] to either [IPv4] or [IPv4 & IPv6] and assign the IP address for "IPv4".

#### Channel definition

The following table lists the channel definitions used for controlling the projector with the Art-Net function. Channel settings can be switched using the [NETWORK] menu  $\rightarrow$  [Art-Net]  $\rightarrow$  [Art-Net CHANNEL SETTING] ( $\Rightarrow$  page 177).

The control details assigned to each channel are listed in the following table.

Channel assignment for [USER] is in factory default setting. Assignment can be changed.

Channel	Control details					
Channel	[2]	[USER]	[1]			
CHANNEL1	LIGHT OUTPUT	LIGHT OUTPUT	SHUTTER			
CHANNEL2	INPUT SELECT	INPUT SELECT	INPUT SELECT			
CHANNEL3	LENS POSITION	LENS POSITION	LENS FUNCTION SELECT			
CHANNEL4	LENS H SHIFT	LENS H SHIFT	LENS CONTROL			
CHANNEL5	LENS V SHIFT	LENS V SH <b>I</b> FT	POWER			
CHANNEL6	LENS FOCUS	LENS FOCUS	LIGHT OUTPUT			
CHANNEL7	LENS ZOOM	LENS ZOOM	ENABLE/DISABLE			
CHANNEL8	POWER	POWER	FADE-IN			