RS232 Command Protocol

FLD-MAX-S Series Matrix Switcher

1. Control code

Matrix protocol set

The serial port protocol comprises the information of the Baud rate: 115200 by default; data bit: 8 bits; stop bit: 1 bit; and check bits: none.

2. Switching Instruction

2.1 Simplex Switching

Computer-to-matrix	Function	Matrix-to- Computer	Example
[X1]V[Y1].	[X1] is input and [Y1] is output through simplex video.	V:[X1]->[Y1]!	1V1.
[X1]B[Y1].	[X1] is input and [Y1] is output through simplex audio and video.	B:[X1]->[Y1]!	1B1.
[X1]*[Y1]&	[X1] is input and [Y1] is output through simplex video.	V:[X1]->[Y1]!	1*1&
[X1]*[Y1]%	[X1] is input and [Y1] is output through simplex video.	V:[X1]->[Y1]!	1*1%
[X1]*[Y1]!	[X1] is input and [Y1] is output through simplex video.	B:[X1]->[Y1]!	1*1!
[X1]V#.	[X1] is input and [Y1] is output correspondingly through simplex video.	[X1] V Through!	1V#.
[X1]#.	[X1] is input and [Y1] is output correspondingly through simplex audio and video.	[X1] A/V Through!	1#.

2.2 Fast Multiplex Switching

Computer-to-matrix	Function	Matrix-to- Computer	Example
[X1]V[Y1],[Y2].	[X1] is input and [Y1],[Y2] are output through simplex video.	V:[X1]->[Y1],[Y2] !	1V1,2,3.
[X1]B[Y1],[Y2].	[X1] is input and [Y1],[Y2] are output through simplex audio and video.	B:[X1]->[Y1],[Y2]!	1B1,2, 3.
[X1]All.	[X1] is input and output to all ways through audio and video.	[X1]A/V TO All!	1All.
[X1]*!	[X1] is input and output to all ways	[X1]A/V TO All!	1*！

	through audio and video.		
[X1]*&	[X1] is input and output to all ways through video.	[X1] V TO All!	1*&
[X1]*%	[X1] is input and output to all ways through video.	[X1] V TO All!	1*%
AllV#.	All video channels are output in one-to-one correspondence.	All V Through!	AllV#.
All#.	All video channels are output in one-to-one correspondence.	All A/V Through!	All#.
[X1],[X2]V#.	All video channels are output in one-to-one correspondence.	[X1],[X2] V Through!	1,2,3V#.
[X1],[X2]#.	All video channels are output in one-to-one correspondence.	[X1],[X2] A/V Through!	1,2,3#.

2.3 Simplex Closing

Computer-to-matrix	Function	Matrix-to- Computer	Example
0V[Y1].	Simplex video is closed and [Y1] is output.	V:OFF->[Y1]!	0V1.
0B[Y1].	Simplex video is closed and [Y1] is output.	B:OFF ->[Y1]!	0B1.
0*[Y1]&	Simplex video is closed and [Y1] is output.	V:OFF->[Y1]!	0*1&
0*[Y1]%	Simplex video is closed and [Y1] is output.	V:OFF->[Y1]!	0*1%
0*[Y1]!	Simplex audio and video are closed and [Y1] is output.	B:OFF ->[Y1]!	0*1!
[Y1]$.	Simplex audio and video are closed and [Y1] is output.	B:OFF ->[Y1]!	1$.

2.4 Fast Multiplex Closure

Computer-to-matrix	Function	Matrix-to- Computer	Example
[Y1], [Y2]V$.	[Y2] Multi-channel video is closed, and [Y1]，[Y2] are output.	V:OFF->[X1],[X2]!	1,2,3V$.
[Y1], [Y2]$.	Multi-channel audio and video are closed, and [Y1]，[Y2] are output.	B:OFF->[Y1],[Y2]!	1,2,3$.
AllV$.	All video output is closed.	All V Closed!	AllV$.
All$.	All audio and video output is closed.	All A/V Closed!	All$.

2.5.Global Preset Instruction

Computer-to-matrix	Function	Matrix-to- Computer	Example
Save[N].	A current audio and video port connection state is saved in the Nth preset.	Save To F[N]!	Save1.
Recall[N].	The Nth preset is recalled and taken as current port connection.	Recall From F[N]!	Recall1.
Clear[N].	The Nth preset is cleared.	Clear F[N]!	Clear1.

3. Query Instruction

3.1 Channel Connection Query Instruction

Computer-to-matrix	Function	Matrix-to- Computer	Example
Status[Y1].	The connection state output by simplex audio and video is queried.	V:[X1]->[X2]! A:[X1]->[X2]!	Status1.
Status.	The connection state output by all-way audio and video is queried.	V:[X1]->[X2]! A:[X1]->[X2]! ……	Status.

3.2 System Query Instruction

Computer-to-matrix	Function	Matrix-to- Computer	Example
*Version;	Matrix version query	Version:[X5]	*Version;
*Type;	Matrix model query	Type:[X5]	*Type;
*MIP;	Matrix network mode query Matrix network port numbers query Computer host network port number query Matrix IP query Network gateway query Network subnet mask query Network hardware addresses query	DHCP:Use/NO Use! MPORT:[X5]! CPORT:[X5]! MIP:[X5]. [X6]. [X7]. [X8]! GATE:[X5]. [X6]. [X7]. [X8]! SUB:[X5]. [X6]. [X7]. [X8]! MAC:[X5]-[X6]-[X7]-[X8]-[X9]-[X10]!	*MIP;
*Bell;	Buzzer query	Bell:On/Off!	*Bell;
*BR;	Baud rate query	Baudrate:9600!	*BR;

*ConnectTest;	Serial connection query	Connect OK !	*ConnectTest;

4. Setting Instruction

Computer-to-matrix	Function	Matrix-to- Computer	Example
/:BellOff;	Turn off the buzzer	Bell Off!	/:BellOff;
/:BellOn;	Turn on the buzzer	Bell On!	/:BellOn;
/:MessageOff;	Return information toward computer serial port is closed.	Message Off!	/:MessageOff;
/:MessageOn;	Return information toward computer serial port is opened.	Message On!	/:MessageOn;
/:BR[X4];	Baud rate is set.	Baudrate:9600!	/:BR9600;
/%Lock;	A keyboard is locked.	System Locked!	/%Lock;
/%UnLock;	A keyboard is unlocked,	System UnLocked!	/%UnLock;
/#MPORT[X1];	Matrix network port number is set.	MPORT:[X1]	/#MPORT5000;
/#CPORT[X1];	Main host network port number is set.	CPORT:[X1]	/#CPORT5100;
/#MIP[X1].[X2].[X3].[X4] ;	Equipment IP is set.	MIP:[X1].[X2].[X3] .[X4]	/#MIP192.168.0.2;
/#GATE[X1].[X2].[X3].[X4] ;	Equipment gateway number is set.	GATE[X1].[X2].[X3].[X4] ;	/#GATE192.168.0.1；
/#SUB[X1].[X2].[X3].[X5];	Equipment subnet mask is set.	SUB[X1].[X2].[X3].[X5];	/#SUB255.255.255.0；
/#MAC[X1]-[X2]-[X3]- [X4]-[X5]-[X6];	Equipment hardware address is set.	MAC:[X1]-[X2]-[X3] -[X4]-[X5]-[X6]	/#MAC55-44-33-22- 11-00;
/#DHCPUSE;	IP is automatic acquired.	DHCPUSE	/#DHCPUSE;
/#DHCPNOUSE;	IP is fixed.	DHCPNOUSE	/#DHCPNOUSE;
	Set network parameter value is wrong.	Out of range!	
	Network setting success.	NETSET:OK	

Network Interface Default Parameters

Network port number：5000	Master controller network port number：5100
Matrix network IP：192.168.3.100	IP Master controller network：192.168.3.250
Matrix network gateway number：192.168.3.1	Matrix network subnet mask：255.255.255.0
Matrix network hardware initial address： 0x55.0x44.0x33.0x22.0x11.0x00;	

5. System Instruction

/#Reset;	Factory settings are restored.	System Reset!	/#Reset;