


Serial Communication Format

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Tags	

Data Format (General)

Start Character sequence will be 0x3A(:), 0x23 (#) and end character will be (0x0A)(\n), 0x0D (\r)

START Sequence

ASCII char (HEX)	Symbol	Description	Role
0x3A	#	Number Sign	START_HIGH_BYTE
0x23	:	Colon	START_LOW_BYTE

END Sequence

ASCII char (HEX)	Symbol	Description	Role
0x0A	LF (\n)	Line feed	END_HIGH_BYTE
0x0D	CR (\r)	Carriage Return	END_LOW_BYTE

Type	Size (in Bytes)
START Sequence	2
Device Code	1
Order Code	1
Data	N
END Sequence	2

Order Codes

Code	Description	Name
0x01	Write data on drive	WRITE_MEM
0x02	Read data from drive	READ_MEM
0x03	Read all entries from lookup section	READ_ENTRY
0x04	Calculates free space in memory	READ_SPACE
0x05	Image upload	UPLOAD_IMG
0x10	Format complete drive	DELETE_MEM
0x11	Ping device	PING
0x12	Set master password	SET_PASSWORD
0x13	Authentication	AUTH_CHECK
0xFE	Exception occurred	Only slaves can generate this order code



Code with high byte 1, require admin access to perform operation, except ping message.

Exception Codes

Code	Name	Description
0x01	ILLEGAL_ORDER_CODE	The order code received in the request is not an authorized action for the slave. The slave may be in the wrong state to process a specific request.
0x02	ILLEGAL_DEVICE_CODE	The data address received by the slave is not an authorized address for the slave.
0x03	MASTER_PASSWORD_NOT_SET	Master password is still not set on device
0x04	AUTH_FAILED	Authentication failed
0x05	PASSWORD_LENGTH_EXCEED	Password length is greater than required
0x06	DEVICE_CODE_MISMATCH	Device code not matched
0x07	INSUFFICIENT_MEMORY	Not enough space on disk
0x08	AUTO_DESTROY	Password auth fail count exceeds limit and after this your disk will be formatted.

This is 0xFE representation on ASCII Table



If exception is raised, order code in response will be 0xFE

DECIMAL	OCT	HEX	BIN	Symbol	HTML Number	HTML Name	Description
<u>254</u>	376	0xFE	1111110	þ	þ	þ	Latin small letter thorn



If someone is able to store this latin symbol on eeprom, that will be 0xFE, which will be stored. But, when user tries to read this password, our cli app will read this as exception.