AT-USB-EX350-KIT

USB 3.2 Extender Kit

API Command Reference

October 2026





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Version Information

This document lists the commands for controlling the AT-USB-EX350-KIT over Telnet, SSH, WebSocket (JSON-RPC), and RS-232. Its version history follows the original command reference.

Version	Date	Notes
1	Mar 2025	Initial release
HR 1.0	October 2026	Converted to the Hall Research document format. No command changes.

Sales, Marketing & Customer Support

Item	Details
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Product Page (AT-USB-EX350-KIT)	https://www.hallresearch.com/product/AT-USB-EX350-KIT

IMPORTANT: Visit hallresearch.com/product/AT-USB-EX350-KIT for the latest firmware updates and documentation.

Introduction

Connection Information

Item	Setting
Telnet port	23
SSH port	22
WebSocket (WS)	Port 80 — ws://<IP>/ws
Secure WebSocket (WSS)	Port 443 — wss://<IP>/ws
RS-232 settings (default)	115200 baud, 8 data bits, no parity, 1 stop bit

TCP Proxy

This product also supports TCP Proxy to the local RS-232 port with the following port assignment:

TCP Port	Description
9001	RS-232

ID Request Identifier

Proper use of the id request identifier in each JSON request object is essential for updating the web client interface in real time. The id value must be in the format [NAMESPACE]+[METHOD]+"Results". For example, for the Usb.Get request object the id must be "UsbGetResults". Using any other string still processes the command, but the web client interface must then be refreshed manually to show the changes.

NOTE: Each command and each response is a single line when sent over Telnet or SSH. Where a command wraps on the page, the wrap is not part of the command. Responses are shown indented for readability.

Command Quick Reference

Select a command name to go to its full description.

Command	Description
DisplayCtrlRs232.Set	Configures the settings for the RS-232 port
DisplayCtrlRs232Cmd.Send	Triggers the AT-USB-EX350-KIT to send the command string to the display over the RS-232 port
Network.Get	Returns the current network settings of the AT-USB-EX350-KIT
Network.Set	Configures the network settings for the AT-USB-EX350-KIT
NetworkCtrlProtocols.Get	Returns the state of the available communication protocols
NetworkCtrlProtocolsEnable.Set	Controls the activation or deactivation of the allowed communication protocols
NetworkHostname.Get	Returns the hostname of the AT-USB-EX350-KIT
NetworkHostname.Set	Assigns a hostname to the AT-USB-EX350-KIT
Platform.FactoryReset	Performs a factory-reset of the AT-USB-EX350-KIT
Platform.Reboot	Performs a soft reboot of the AT-USB-EX350-KIT
System.Get	Displays the current system information
Time.Get	Returns the current time setting of the AT-USB-EX350-KIT
Time.Set	Sets the system time
TimeNTP.Set	Sets the NTP settings
TimeZone.Get	Returns the current time zone setting of the AT-USB-EX350-KIT
TimeZone.Set	Sets the time zone for the AT-USB-EX350-KIT
Usb.Get	Returns the VBUS setting on the device ports
UsbDeviceSupport.Get	Returns the current status of USB 2.0 and USB 3.0 support, indicating whether each is enabled or disabled
UsbDeviceSupport.Set	Enables or disables USB 2.0 and USB 3.0 compatibility
UsbInfo.Get	Returns information on the Valens VS6320 devices on both ends of the HDBaseT link
UsbVbus.Set	Sets the VBUS mode for the specified device port

Commands

DisplayCtrlRs232.Set

Configures the settings for the RS-232 port.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"DisplayCtrlRs232.Set","params":
{"baudrate":"Y","parity":"Z","dataBit":"U","stopBit":"V"}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	baudrate	9600, 19200, 38400, 57600, 115200
Z	parity	none, even, odd
U	dataBit	7, 8
V	stopBit	0, 1

Example

```
{ "jsonrpc": "2.0", "id": "DisplayCtrlRs232SetResults", "method": "DisplayCtrlRs232.Set", "params":
{ "baudrate": "9600", "parity": "N", "dataBit": "8", "stopBit": "1" } }
```

Response

```
{
    "id": "DisplayCtrlRs232SetResults",
    "jsonrpc": "2.0",
    "result": true
}
```

DisplayCtrlRs232Cmd.Send

Triggers the AT-USB-EX350-KIT to send the command string to the display over the RS-232 port.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"DisplayCtrlRs232Cmd.Send","params":{"mode":"Y","data":"Z"}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	mode	str, hex
Z	data	String data

Example

```
{ "jsonrpc": "2.0", "id": "DisplayCtrlRs232CmdSendResults", "method": "DisplayCtrlRs232Cmd.Send",
"params": { "mode": "hex", "data": "74 65 A3 41" } }
```

Response

```
{
    "jsonrpc": "2.0",
    "id": "DisplayCtrlRs232CmdSendResults",
    "result": true
}
```

Network.Get

Returns the current network settings of the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Network.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "NetworkGetResults", "method": "Network.Get" }
```

Response

```
{
    "id": "NetworkGetResults",
    "jsonrpc": "2.0",
    "result": {
        "gateway": "10.20.20.1",
        "ip_mode": "dhcp",
        "ip_port": 23,
        "ipaddr": "10.20.20.49",
        "mac": "B8:98:B0:0E:F9:B7",
        "netmask": "255.255.255.0"
    }
}
```

Network.Set

Configures the network settings for the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Network.Set","params":
{"ip_mode":"Y","ipaddr":"Z" ,"netmask":"U","gateway":"V","ip_port":W}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	ip_mode	autoip, dhcp, static
Z	ipaddr	IP address
U	netmask	Subnet mask
V	gateway	Gateway (router address)
W	ip_port	Port number

Example

```
{ "jsonrpc": "2.0", "id": "NetworkSetResults", "method": "Network.Set", "params": { "ip_mode": "static",
"ipaddr": "10.20.20.49", "netmask": "255.255.255.0", "gateway": "10.20.20.1", "ip_port": 23 } }
```

Response

```
{
    "id": "NetworkSetResults",
    "jsonrpc": "2.0",
    "result": {
        "gateway": "10.20.20.1",
        "ip_mode": "static",
        "ip_port": 23,
        "ipaddr": "10.20.20.49",
        "netmask": "255.255.255.0"
    }
}
```

NetworkCtrlProtocols.Get

Returns the state of the available communication protocols.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"NetworkCtlProtocols.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "NetworkCtlProtocolsGetResults", "method": "NetworkCtlProtocols.Get" }
```

Response

```
{
    "id": "NetworkCtlProtocolsGetResults",
    "jsonrpc": "2.0",
    "result": {
        "ssh": {
            "enabled": true,
            "timeout": "off"
        },
        "tcp_proxy": {
            "enabled": true
        },
        "telnet": {
            "enabled": true,
            "timeout": "off"
        }
    }
}
```

NetworkCtrlProtocolsEnable.Set

Controls the activation or deactivation of the allowed communication protocols.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"NetworkCtlProtocolsEnable.Set","params":
{"protocol":"telnet","enabled":Z}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	protocol	telnet, ssh
Z	enabled	true, false

Example

```
{ "jsonrpc": "2.0", "id": "NetworkCtlProtocolsEnableSetResults", "method":
"NetworkCtlProtocolsEnable.Set", "params": { "protocol": "telnet", "enabled": false } }
```

Response

```
{
    "id": "NetworkCtlProtocolsEnableSetResults",
    "jsonrpc": "2.0",
    "result": {
        "enabled": false,
        "protocol": "telnet"
    }
}
```

NetworkHostname.Get

Returns the hostname of the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"NetworkHostname.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "NetworkHostnameGetResults", "method": "NetworkHostname.Get" }
```

Response

```
{
    "jsonrpc": "2.0",
    "id": "NetworkHostnameGetResults",
    "result": {
        "hostname": "USB-EX350"
    }
}
```

NetworkHostname.Set

Assigns a hostname to the AT-USB-EX350-KIT. If a null string is provided for the hostname, then the default hostname will be used.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"NetworkHostname.Set","params":"Y"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	params	Hostname

Example

```
{ "jsonrpc": "2.0", "id": "NetworkHostnameSetResults", "method": "NetworkHostname.Set", "params":
"UsbExtender" }
```

Response

```
{
    "jsonrpc": "2.0",
    "id": "NetworkHostnameSetResults",
    "result": {
        "hostname": "UsbExtender"
    }
}
```

Platform.FactoryReset

Performs a factory-reset of the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Platform.FactoryReset"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "PlatformFactoryResetResults", "method": "Platform.FactoryReset" }
```

Response

```
{
    "id": "PlatformFactoryResetResults",
    "result": true,
    "jsonrpc": "2.0"
}
```

Platform.Reboot

Performs a soft reboot of the AT-USB-EX350-KIT. All routing, system, and network settings are preserved.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Platform.Reboot"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "PlatformRebootResults", "method": "Platform.Reboot" }
```

Response

```
{
    "id": "PlatformRebootResults",
    "result": true,
    "jsonrpc": "2.0"
}
```

System.Get

Displays the current system information.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"System.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "SystemGetResults", "method": "System.Get" }
```

Response


```
{
    "id": "SystemGetResults",
    "jsonrpc": "2.0",
    "result": {
        "FwVer": "0.0.1.7",
        "HwVer": "V0.1",
        "OnTime": "5-22:54:36",
        "Rxdevice": {
            "McuVer": "8.0.1",
            "VsVer": "1.0.7",
            "model": "AT-USB-EX350-DV",
            "serialnumber": ""
        },
        "Txdevice": {
            "ARMVer": "0.0.1.7",
            "VsVer": "1.0.7",
            "model": "AT-USB-EX350-HS",
            "serialnumber": "09503356240812000 09"
        },
        "model": "AT-USB-EX350-KIT",
        "network": {
            "hostname": "USB-EX350",
            "ipaddress": "10.20.20.49",
            "macaddress": "B8:98:B0:0E:F9:B7"
        },
        "receiverlink": true,
        "serialnumber": "0950335624081200009",
        "standby": false
    }
}
```

Time.Get

Returns the current time setting of the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Time.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "TimeGetResults", "method": "Time.Get" }
```

Response

```
{
    "id": "TimeGetResults",
    "jsonrpc": "2.0",
    "result": "2024-09-05 07:43:45"
}
```

Time.Set

Sets the system time. The params object must be formatted as: YYYY-MM-DD[SPACE]hh:mm:ss.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Time.Set","params":"Y"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	params	Time

Example

```
{ "jsonrpc": "2.0", "id": "TimeSetResults", "method": "Time.Set", "params": "2024-09-27 08:37:00" }
```

Response

```
{
    "jsonrpc": "2.0",
    "id": "TimeSetResults",
    "result": true
```

TimeNTP.Set

Sets the NTP settings.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"TimeNTP.Set","params":{"enabled":"Y","hostname": "Z"}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	enabled	true, false
Z	hostname	NTP server hostname or IPv4 address

Example

```
{ "jsonrpc": "2.0", "id": "TimeNTPSetResults", "method": "TimeNTP.Set", "params": { "enabled": "true",
"hostname": "10.20.20.1" } }
```

Response

```
{
    "id": "TimeNTPSetResults",
    "jsonrpc": "2.0",
    "result": true
}
```

TimeZone.Get

Returns the current time zone setting of the AT-USB-EX350-KIT.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"TimeZone.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "TimeZoneGetResults", "method": "TimeZone.Get" }
```

Response

```
{
    "id": "TimeZoneGetResults",
    "jsonrpc": "2.0",
    "result": {
        "settings": {
            "Time/NTPEnabled": true,
            "Time/NTPHostname": "pool.ntp.org",
            "Time/TimeZone": "UTC"
        }
    }
}
```

TimeZone.Set

Sets the time zone for the AT-USB-EX350-KIT. The params object must include country or continent and city, and must be formatted as COUNTRY(CONTINENT)/CITY.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"TimeZone.Set","params":"Y"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	params	Time zone name

Example

```
{ "jsonrpc": "2.0", "id": "TimeZoneSetResults", "method": "TimeZone.Set", "params":
"America/Los_Angeles" }
```

Response

```
{
    "id": "TimeZoneSetResults",
    "result": true,
    "jsonrpc": "2.0"
}
```

Usb.Get

Returns the VBUS setting on the device ports.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"Usb.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "UsbGetResults", "method": "Usb.Get" }
```

Response

```
{
    "id": "UsbGetResults",
    "jsonrpc": "2.0",
    "result": [
        {
            "usb_device_port": 1,
            "vbus": "always high"
        },
        {
            "usb_device_port": 2,
            "vbus": "always low"
        },
        {
            "usb_device_port": 3,
            "vbus": "follows host"
        },
        {
            "usb_device_port": 4,
            "vbus": "follows host"
        }
    ]
}
```

UsbDeviceSupport.Get

Returns the current status of USB 2.0 and USB 3.0 support, indicating whether each is enabled or disabled.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"UsbDeviceSupport.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "UsbDeviceSupportGetResults", "method": "UsbDeviceSupport.Get" }
```

Response

```
{
    "id": "UsbDeviceSupportGetResults",
    "jsonrpc": "2.0",
    "result": {
        "USB2.0": true,
        "USB3.0": true
    }
}
```

UsbDeviceSupport.Set

Enables or disables USB 2.0 and USB 3.0 compatibility.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"UsbDeviceSupport.Set","params":{"USB3.0":"Y","USB2.0":"Y"}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	USB3.0, USB2.0	true, false

Example

```
{ "jsonrpc": "2.0", "id": "UsbDeviceSupportSetResults", "method": "UsbDeviceSupport.Set", "params":
{ "USB3.0": true, "USB2.0": false } }
```

Response

```
{
    "id": "UsbDeviceSupportSetResults",
    "jsonrpc": "2.0",
    "result": {
        "USB2.0": false,
        "USB3.0": true
    }
}
```

UsbInfo.Get

Returns information on the Valens VS6320 devices on both ends of the HDBaseT link.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"UsbInfo.Get"}
```

Identifier	Request Object	Parameters
X	id	ID (optional)

Example

```
{ "jsonrpc": "2.0", "id": "USBInfoGetResults", "method": "UsbInfo.Get" }
```

Response


```
{
    "id": "USBInfoGetResults",
    "jsonrpc": "2.0",
    "result": {
        "TAConf.USB.DevicesInfo":
"0101020007080202020 3abcd12340903000000000000000000000010309020201000 5e30610000100000
00204020100000000",
        "TAConf.USB2.Available_Endpoints": "0d0c0f0f",
        "TAConf.USB3.GetDevicesTree":
"0202010007040101000 5e3062600000000010000000000000000000090401010085641000000000001100
000000000000000",
        "TotalUsbDeviceCurrent": 187,
        "UsbDeviceConnection": [
            {
                "connection": true,
                "usb_device_port": 1
            },
            {
                "connection": false,
                "usb_device_port": 2
            },
            {
                "connection": true,
                "usb_device_port": 3
            },
            {
                "connection": false,
                "usb_device_port": 4
            }
        ],
        "UsbHostLink": true,
        "UsbOvercurrentProtection": false
    }
}
```

UsbVbus.Set

Sets the VBUS mode for the specified device port.

Syntax

```
{"jsonrpc":"2.0","id":"X","method":"UsbVbus.Set","params":{"usb_device_port":Y,"vbus":"Z"}}
```

Identifier	Request Object	Parameters
X	id	ID (optional)
Y	port	1...4
Z	vbus	follows host, always high, always low

Example

```
{ "jsonrpc": "2.0", "id": "UsbVbusSetResults", "method": "UsbVbus.Set", "params": { "usb_device_port": 4, "vbus": "always low" } }
```

Response

```
{
    "id": "UsbVbusSetResults",
    "jsonrpc": "2.0",
    "result": {
        "usb_device_port": 4,
        "vbus": "always low"
    }
}
```