Sennheiser SLDW

Version	1.0.0
Simpl+ Module filename	Sennheiser_SLDW_1.0.0_SE.usp
Simpl# Library filename	Sennheiser_Modules_CSharp.clz
Tested on processor	CP3
Tested on processor firmware	1.601.0050
Tested on device model	Sennheiser SL Rack Receiver DW
Tested on device firmware	2.6.2
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Summary:

This module integrates with Sennheiser SpeechLine Digital Wireless (SLDW), a wireless microphone system.

Release notes:

- 1.0.0
  - Initial release

PARAMETERS	
`Device_IP_Param`	The IP-address of the device we will connect to. If you want to be able to change this during runtime, instead use serial input `Device_IP`
`Device_UDP_Port_Param`	The UDP port of the device we will connect to. This should most likely always be 45d Default: 45d

INPUTS	
Connect	Opens the connection to the device when signal is high. I you use the parameters to set Device Ip and Port, you may define this signals as '1'.
Debug	Enables debug messages to be printed to the text console while signal is high. Make sure this is not left high when not used.
Enable_Incoming_Commands	When set to high, all received data from the device will be outputed on the serial output `Incoming_Command_FB`.
Enable_Rf_Quality_Feedback	Set this high when you want the analog output RF_Quality_FB to start outputing values. You may define this signals as '1'. The reason you have to manually enable this is because the device is quite "chatty" so if you don't use this feature all that traffic is unneccesary.
Identify_On Identify_Off Identify_Toggle	Turns on/off/toggles the identify feature of the device. It blinks a LED on the frontpanel.
Mute_Switch_Active Mute_Switch_Inactive Mute_Switch_Active_Toggle	Turns on/off/toggles the possibility to use the mute button on the transmitting device (such as the handmic or bodypack).
Low_Cut_On Low_Cut_Off Low_Cut_Toggle	Turns on/off/toggles the Low Cut equalizer feature. It removes the bass frequencies in the audio.
Brightness	Sets the frontpanel brightness of the device. Range: 0-65535 (0-100%)
Output_Gain	Sets the output gain of the device. Range: 0-6 0 = -24 dB 1 = -18 dB 2 = -12 dB 3 = -6 dB

	4 = 0 dB 5 = 6 dB 6 = 12 dB
Eq	Selects which EQ to use. Range: 0-4 0 = Off 1 = Female speech 2 = Male speech 3 = Media 4 = Custom
Set_Name	Sets the name of the device. Max length: 8 characters.
Set_Group	Sets the group (location) of the device. Max length: 8 characters. Allowed chars: 0-9, -, _, A-Z, a-z (comma not included) Must start with a letter May not start or end with a – or _
Send_Custom_Command	Makes it possible to send your own commands to the device. Refer to the Sennheiser Sound Control Protocol (SSC). Example command: {"device":{"reset":true}}
Device_IP	The IP-address of the device we will connect to. Make sure you connect after this is set.
Device_UDP_Port	The UDP port of the device we will connect to. This should most likely always be 45. Make sure you connect after this is set.

OUTPUTS	
Responding_FB	This is high as long as the device is responding. As the protocol uses UDP there is no connection state, so it might take up to a minute before responding goes low after the device has stopped responding.
Identifying_FB	This is high while the device is in identifying state.
Mute_Switch_Active_FB	This is high if it's possibe to use the mute button on the transmitting device (such as the handmic or bodypack).
Low_Cut_On_FB	This is high if the Low Cut EQ feature is on in the device.
TX_Active_FB	This is high when a transmitter (such as the handmic or bodypack) is turned on and connected to the device.

TX_Charging_FB	This is high when a transmitter is charging while it is on and connected. This will not work when charging a handmic or bodypack in the CHG-4N, as it will then disconnect from the device.
Brightness_FB	The current frontpanel brightness of the device.
Output_Gain_FB	The current output gain of the device. Range 0-6. 0 = -24 dB 1 = -18 dB 2 = -12 dB 3 = -6 dB 4 = 0 dB 5 = 6 dB 6 = 12 dB
Eq_FB	The currently selected EQ of the device. Range: 0-4 0 = Off 1 = Female speech 2 = Male speech 3 = Media 4 = Custom
RF_Quality_FB	If you set the digital input **Enable_Rf_Quality_Feedback** high, this will output the current RF connection quality with the transmitter.
TX_Device_Type_FB	The currently connected transmitter type. Range: 0-3 0 = Handheld 1 = Bodypack 2 = Tablestand 3 = Boundary
TX_Battery_Type_FB	The currently connected transmitters battery type. Range: 0-1 0 = Battery 1 = Rechargable
TX_Battery_Gauge_FB	The currently connected transmitters battery level. Range: 0-65535 (0-100%)
TX_Battery_Health_FB	The currently connected transmitters battery health level. Range: 0-65535 (0-100%)

TX_Battery_Lifetime_FB	The currently connected transmitters battery lifetime in minutes. Lifetime means before you have to replace the rechargable battery with a new one, not until the current charge is depleted. This only works if you have a rechargable battery.
Name_FB	The name of the device.
Group_FB	The group (location) of the device.
Product_FB	The product name of the device. Example: SLDW
Version_FB	The firmware version of the device. Example: 2.6.2
Serial_FB	The serial number of the device. Example: 1234567890
Mac_Addresses_FB	The mac adresses of the device. Example: 00:1B:66:11:22:33
RX_Warnings	The warning message shown on the frontpanel of the device. Example: Bad Link
TX_Warnings	The warning message shown on the frontpanel of the transmitter. Example: Low Bat
Incoming_Command_FB	If you set the digital input **Enable_Incoming_Commands** high, this will output all the received data from the device. The use case for this would be to extend the functionality of the module.