Sennheiser SL MCR DW

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| Version | 1.0.0 |
| Simpl+ Module filename | Sennheiser\_MCR\_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 Multi-Channel Receiver DW |
| Tested on device firmware | 3.0.1 |
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**Summary:**

This module integrates with Sennheiser SpeechLine Multi-Channel Receiver (SL MCR DW), a wireless microphone system.

**Release notes:**

* 1.0.0
  + Initial release

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| 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 |
| Number\_of\_Channels | The number of channels that the device has, or that will be used. |

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| 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 Enable\_Mixer\_Level\_Feedback  Enable\_RX\_Input\_Level\_Feedback | Set this high when you want the analog outputs **RF\_Quality\_FB** / **Mixer\_Level\_FB** / **RX\_Input\_Level[x]** 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. |
| RX\_Identify\_On[x]  RX\_Identify\_Off[x]  RX\_Identify\_Toggle[x] | Turns on/off/toggles the identify feature of the corresponding receiver channel. |
| Low\_Cut\_On[x]  Low\_Cut\_Off[x]  Low\_Cut\_Toggle[x] | Turns on/off/toggles the Low Cut equalizer feature on the corresponding receiver channel.  It removes the bass frequencies in the audio. |
| Led\_Brightness | Sets the brightness of the leds on the device.  Range: 0-5  0 = Off  …  5 = Full |
| Dante\_Output\_Gain | Sets the Dante 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 |
| Set\_Name | Sets the name of the device.  Max length: 8 characters. |
| Set\_Location | Sets the location of the device.  Max length: 8 characters.  Allowed chars: 0-9, A-Z, a-z or <space>  Must start with a letter  May not start or end with a – or \_ |
| Set\_Position | Sets the position of the device. Intended to be used as the position in the location. Example if location is ”Room\_1”, position might be ”Over the table”.  Max length: 30 characters.  Allowed chars: 0-9, A-Z, a-z or <space> |
| 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. |
| RX\_Output\_Gain[x] | Sets the output gain of the corresponding receiver channel.  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[x] | Selects which EQ to use for the corresponding receiver channel.  Range: 0-4  0 = Off  1 = Female speech  2 = Male speech  3 = Media  4 = Custom |

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| 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. |
| RX\_Identifying\_FB[x] | This is high while the receiver channel is in identifying state. |
| Low\_Cut\_On\_FB[x] | This is high if the Low Cut EQ feature on the receiver channel is on. |
| TX\_Active\_FB[x] | This is high when a transmitter (such as the handmic or bodypack) is turned on and connected to the corresponding receiver channel. |
| TX\_Charging\_FB[x] | This is high when a transmitter is charging while it is on and connected to the corresponding receiver channel.  This will not work when charging a handmic or bodypack in the CHG-4N, as it will then disconnect from the device. |
| Led\_Brightness\_FB | The currently selected brightness of the leds on the device.  Range: 0-5  0 = Off  …  5 = Full |
| Dante\_Output\_Gain\_FB | The current Dante 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 |
| Mixer\_Level\_FB | If you set the digital input **Enable\_Mixer\_Level\_Feedback** high, this will output the current mixer level. Value is in dB.  Range: -60 – 0 |
| Name\_FB | The name of the device. |
| Location\_FB | The location of the device. |
| Position\_FB | The position of the device. Intended to be used as the position in the location. Example if location is ”Room\_1”, position might be ”Over the table”. |
| Product\_FB | The product name of the device. Example: SLDW4CH |
| Version\_FB | The firmware version of the device. Example: 3.0.1 |
| 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 |
| Dante\_Ip\_Addresses\_FB | The ip addresses of the Dante outputs. This returns both addreses separated with a comma. If there’s no network cable connected or no adresses set, this might return a string only containing a comma.  Example: 192.168.10.2,192.168.10.3 |
| Dante\_Mac\_Addresses\_FB | The mac addresses of the Dante outputs. This returns both addresses separated with a comma.  Example: 00:1B:66:44:55:66,00:1B:66:77:88:99 |
| 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. |
| Output\_Gain\_FB[x] | The current output gain of the corresponding receiver channel.  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[x] | The currently selected EQ of the corresponding receiver channel.  Range: 0-4  0 = Off  1 = Female speech  2 = Male speech  3 = Media  4 = Custom |
| RF\_Quality\_FB[x] | If you set the digital input **Enable\_Rf\_Quality\_Feedback** high, this will output the current RF connection quality with the transmitter. |
| RX\_Input\_Level\_FB[x] | If you set the digital input **Enable\_RX\_Input\_Level\_Feedback** high, this will output the current RF connection quality with the transmitter. |
| TX\_Device\_Type\_FB[x] | The currently connected transmitter type.  Range: 0-3  0 = Handheld  1 = Bodypack  2 = Tablestand  3 = Boundary |
| TX\_Battery\_Type\_FB[x] | The currently connected transmitters battery type.  Range: 0-1  0 = Battery  1 = Rechargable |
| TX\_Battery\_Gauge\_FB[x] | The currently connected transmitters battery level.  Range: 0-65535 (0-100%) |
| TX\_Battery\_Health\_FB[x] | The currently connected transmitters battery health level.  Range: 0-65535 (0-100%) |
| TX\_Battery\_Lifetime\_FB[x] | 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. |
| RFPI\_FB[x] | The RFPI number of the corresponding receiver. |
| Last\_Paired\_IPEI\_FB[x] | The last paired IPEI number of the corresponding receiver.  This can be used to identify which transmitter the device is paired with even when the transmitter is in the charger. |
| RX\_Warnings[x] | The warning message of the corresponding receiver.  Example: Bad Link |
| TX\_Warnings[x] | The warning message shown on the frontpanel of the transmitter connected to the corresponding receiver.  Example: Low Bat |