

Json protocol for DARK DAWN

Port no: 10002

commands sent ONLY FROM controller to PC controller

command:	"SampleRate"
function:	current sample rate. Part of response from "ReqStatus":"ReqStatusA"
example:	"SampleRate": "48000"
Options:	
"Fail"	could not find a valid sample rate to respond with
"32000"	32 KHz
"44100"	44.1 KHz
"48000"	48 KHz
"88200"	88.2 KHz
"96000"	96 KHz
"176400"	176.4 KHz
"192000"	192 KHz
command:	"ClkSource"
function:	current clock source. Part of response from "ReqStatus":"ReqStatusA"
example:	"ClkSource": "Internal"
Options:	
"Fail"	could not find a valid clock source
"Internal"	Frame clock from internal network
"External"	Frame clock reference from external word clock input
command:	"EthPri"
function:	primary ethernet state. Part of response from "ReqStatus":"ReqStatusA"
example:	"EthPri": "True"
Options:	
"False"	Primary port connection NOT detected
"True"	Primary port connection detected
command:	"EthSec"
function:	secondary ethernet state. Part of response from "ReqStatus":"ReqStatusA"
example:	"EthSec": "True"
Options:	
"False"	Secondary port connection NOT detected
"True"	Secondary port connection detected
command:	"PsuA"
function:	PSU A state. Part of response from "ReqStatus":"ReqStatusA"
example:	"PsuA": "True"
Options:	
"False"	Power supply A volts not detected
"True"	Power supply A volts detected

command:	"PsuB"
function:	PSU B state. Part of response from "ReqStatus": "ReqStatusA"
example:	"PsuB": "True"
Options:	
"False"	Power supply B volts not detected
"True"	Power supply B volts detected
command:	"MeterSel"
function:	Meter selection state. Part of response from "ReqStatus": "ReqStatusA"
example:	"MeterSel": "MeterAdcIn"
Options:	
"MeterAdcIn"	mini meter shows level from ADC inputs
"MeterDigIn"	mini meter shows level from Digital inputs
command:	"MeterLineUp"
function:	Meter line up. Part of response from "ReqStatus": "ReqStatusA"
example:	"MeterLineUp": "MeterLineUp18"
Options:	
"MeterLineUp24"	-24 dBFS
"MeterLineUp20"	-20 dBFS
"MeterLineUp18"	-18 dBFS
command:	"FullScale"
function:	Full scale setting. Part of response from "ReqStatus": "ReqStatusA"
example:	"FullScale": "MeterScale18"
Options:	
"MeterScale24"	-24 dBU
"MeterScale20"	-20 dBU
"MeterScale18"	-18 dBU
command:	"HpLevel"
function:	Headphone level. Part of response from "ReqStatus": "ReqStatusA"
example:	"HpLevel": 56
Options:	Headphone level 0-255. where 0 is the min and 255 is the max level.
command:	"MonChn"
function:	monitor channel 1-16. Part of response from "ReqStatus": "ReqStatusA"
example:	"MonChn": 1
Options:	Monitor channel for headphone output 1-16
command:	"FwVersion"
function:	firmware version. Part of response from "ReqStatus": "ReqStatusA"
example:	"FwVersion": "1.19"
command:	"SerialNum"
function:	firmware version. Part of response from "ReqStatus": "ReqStatusA"
example:	"SerialNum": "107"

command: "Bright"
function: brightness setting of front panel. Part of response from "ReqStatus":"ReqStatusA"
example: "Bright": 100
Options: brightness setting of front panel 0-255

The meter levels are represented by 0-255 where 0 is the maximum level which represents 0dBFS for each unit it represents a 0.5dB change.

For example 4 = -2dBFS

command: "Meter1"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter1": 56
Options: 0-255. where 255 is the min and 0 is the max level.

command: "Meter2"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter2": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter3"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter3": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter4"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter4": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter5"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter5": 56
Options: 0-255. where 255 is the min and 0 is the max level.

command: "Meter6"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter6": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter7"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter7": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter8"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter8": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter9"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter9": 56
Options: 0-255. where 255 is the min and 0 is the max level.

command: "Meter10"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter10": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter11"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter11": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter12"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter12": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter13"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter13": 56
Options: 0-255. where 255 is the min and 0 is the max level.

command: "Meter14"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter14": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter15"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter15": 56
Options: 0-255. where 255 is the min and 0 is the max level

command: "Meter16"
function: source is set by "MeterSel". Part of response from "ReqStatus":"ReqMeterData"
example: "Meter16": 56
Options: 0-255. where 255 is the min and 0 is the max level

command:	"StateDsp"
function:	state of DSP core. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateDsp":"True"
Options:	
"False"	DSP core not running
"True"	DSP core running
command:	"StateIoexp1"
function:	state of IO expander 1. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateIoexp1":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded
command:	"StateIoexp2"
function:	state of IO expander 2. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateIoexp2":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded
command:	"StateIoexp3"
function:	state of IO expander 3. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateIoexp3":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded
command:	"StateAdc1"
function:	state of ADC 1. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateAdc1":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded
command:	"StateAdc2"
function:	state of ADC 2. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateAdc2":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded
command:	"StateDac1"
function:	state of DAC 1. Part of response from "ReqStatus":"ReqHwStatus"
example:	"StateDac1":"True"
Options:	
"False"	configuration failed
"True"	configuration succeeded

command:	"StateDac2"	
function:	state of DAC 2. Part of response from "ReqStatus":"ReqHwStatus"	
example:	"StateDac2":"True"	
Options:		
"False"	configuration failed	
"True"	configuration succeeded	
command:	"StateNvram"	
function:	state of config in NVRAM. Part of response from "ReqStatus":"ReqHwStatus"	
example:	"StateNvram":"True"	
Options:		
"False"	could not find NVRAM IC. Use default settings	
"True"	found NVRAM IC – attempt to find configuration	
command:	"StateDacMon"	
function:	state of DAC monitor. Part of response from "ReqStatus":"ReqHwStatus"	
example:	"StateDacMon":"True"	
Options:		
"False"	configuration failed	
"True"	configuration succeeded	
command:	"StateNvramId"	
function:	state of NVRAM id. Part of response from "ReqStatus":"ReqHwStatus"	
example:	"StateNvramId":"True"	
Options:		
"False"	could not find config ID in NVRAM. Use default settings	
"True"	found config ID in NVRAM. Use settings in NVRAM	
command:	"StateResetDev"	
function:	state if device needs a reset for configuration settings to be used. Part of response from "ReqStatus":"ReqHwStatus"	
example:	"StateResetDev":"True"	
Options:		
"False"	DAWN does not need a reset	
"True"	DAWN does need a reset for configuration to be used.	
command:	"SetChnInfo"	
function:	set channel information	
example:	{ "SetChnInfo": [{ "ChnNum":1, "Type":"TypePhnMic", "PhnMicGain":42, "MicGain":10, "LineGain":20, "PhaseInv":"True", "LowCutFilt": "False", "OutPhaseInv": "False" }] }	
Options:		
"ChnNum"	channel number 1-16	
"Type"	input type	
	"TypePhnMic"	= phantom powered microphone
	"TypeMic"	= microphone
	"TypeLine"	= Line

“PhnMicGain” phantom powered microphone gain. See “TypeMinMaxInfo” for min - max
“MicGain” microphone gain. See “TypeMinMaxInfo” for min - max
“LineGain” line gain. See “TypeMinMaxInfo” for min - max
“PhaseInv” input phase invert enabled(“True”) / disabled (“False”)
“LowCutFilt” low cut filter enabled(“True”) / disabled (“False”)
“OutPhaseInv” output phase invert enabled(“True”) / disabled (“False”)
command: “TypeMinMaxInfo”
function: response to “ReqInputTypesMinMax”
example:

```
{“TypeMinMaxInfo”:[  
  {“Type”: “TypeMic”, “MinGain”: 0, “MaxGain”: 42},  
  {“Type”: “TypeLine”, “MinGain”: 0, “MaxGain”: 42},  
  {“Type”: “TypePhnMic”, “MinGain”: 0, “MaxGain”: 42}  
]}
```

options:
Type: TypeMic, TypeLine, TypePhnMic
MinGain: -127 to 128
MaxGain: -127 to 128

command: “CurrMacAddr”
function: current MAC address. Part of response from "ReqStatus":"ReqNetInfo"
example: "CurrMacAddr":"00:22:03:00:08:0A"

command: “StatIpAddr”
function: static IP address. Part of response from "ReqStatus":"ReqNetInfo"
example: "StatIpAddr":"192.168.0.2"

command: “CurrGateAddr”
function: gateway address used when DHCP disabled. Part of response from "ReqStatus":"ReqNetInfo"
example: "CurrGateAddr":"192.168.0.1"

command: “CurrNetMask”
function: netmask used when DHCP disabled. Part of response from "ReqStatus":"ReqNetInfo"
example: "CurrNetMask":"255.255.0.0"

command: “StateDHCP”
function: DHCP state. Part of response from "ReqStatus":"ReqNetInfo"
example: "StateDHCP":“False”
Options:
"False" DHCP disabled
"True" DHCP enabled

command: "CurrNetName"
function: Network name used to access device instead of IP address.
Part of response from "ReqStatus":"ReqNetInfo"
example: "CurrNetName":"DAWN0107".
Id is made created using the serial number assigned to the device.
Default is DAWN0000 until serial number set.

commands sent ONLY FROM PC controller to Dark DAWN

command: "ReqStatus"
function: to request a status block from the controller.
example: "ReqStatus": "ReqStatusA"
options:
"ReqStatusA"
"ReqMeterData"
"ReqHwStatus"
"ReqNetInfo"

"ReqStatusA" returns the following

"SampleRate"
"ClkSource"
"EthPri"
"EthSec"
"PsuA"
"PsuB"
"MeterSel"
"MeterLineUp"
"FullScale"
"HpLevel"
"MonChn"
"FwVersion"
"SerialNum"
"Bright"

"ReqMeterData" returns the following

"Meter1"
"Meter2"
"Meter3"
"Meter4"
"Meter5"
"Meter6"
"Meter7"
"Meter8"
"Meter9"
"Meter10"
"Meter11"
"Meter12"
"Meter13"
"Meter14"
"Meter15"
"Meter16"

"ReqHwStatus" returns the following

"StateDsp"
"StateIoexp1"
"StateIoexp2"
"StateIoexp3"
"StateAdc1"
"StateAdc2"
"StateDac1"
"StateDac2"
"StateDacMon"
"StateNvram"
"StateNvramId"
"StateResetDev"

"ReqNetInfo" returns the following

"CurrMacAddr"
"StatIpAddr"
"CurrGateAddr"
"CurrNetMask"
"StateDHCP"
"CurrNetName"

command: "ReqChnInfo"
function: request channel information
example: "ReqChnInfo":1
Options: channel number 1-16

command: "ReqInputTypesMinMax"
function: request min and max of each input type. Mic, Line, Phantom mic
example: "ReqInputTypesMinMax": "a"

command: "SetHpLevel"
function: set Headphone level
example: "SetHpLevel": 56
Options: headphone level 0-255. where 0 is the min and 255 is the max level.

command: "SetMonChn"
function: set monitor channel
example: "SetMonChn": 1
Options: monitor channel 1-16. where 1 is the min and 16 is the max

command: "ResetHw"
function: resets hardware

example: "ResetHw": "A"

command: "SetBrightness"

function: set brightness setting of front panel.

example: "SetBrightness": 100

Options: brightness setting of front panel 0-255

command: "SetStaticIpAddr"

function: set static IP address.

example: "SetStaticIpAddr": "192.168.0.2"

command: "SetGatewayIP"

function: set gateway address used when DHCP disabled.

example: "SetGatewayIP": "192.168.0.1"

command: "SetNetMask"

function: set netmask used when DHCP disabled.

example: "SetNetMask": "255.255.0.0"

command: "SetDhcpState"

function: set DHCP state.

example: "SetDhcpState": "True"

Options:

"False" DHCP disabled

"True" DHCP enabled