ProPlex®

D A T A   D I S T R I B U T I O N

IQ Micro

User Manual

ProPlex IQ Micro User Manual
Effective 11 June 2021

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DMX port 1   DMX port 2   UP

Confirmation button

LEFT   RIGHT

DOWN

DMX port 1 status LED   DMX port 2 status LED

Port 1   RDM   Port 2

ProPlex IQ Micro

LCD screen

Control buttons

Ethernet port

Ethernet port status LED

Menu Map

Level 1	Level 2	Level 3	Level 4	Explanation
DMX port 1 menu	See below			
DMX port 2 menu	See below			
	Universe			
		VALUE		Set the universe value (0 - 32767)
			Confirm	
			Back	
	Direction			DMX Port 2 direction
			IN	
			OUT	
	RDM			Port 2 RDM settings
			Enabled	
			Disabled	
	Priority			Set the Art-Net priority.
		VALUE		Set the value (0-200)
			Confirm	
			Back	
Setup menu				
	Protocol setup	Protocol		Choose either Art-Net or sACN Protocol
		Art-Net		Art-Net protocol
		sACN		sACN protocol
	Easy priority			If Enabled, when two or more of the same Art-Net/ sACN universes from different sources exist on the network and are used by a ProPlex IQ output port, the console with the higher channel 512 value for each universe will have control over that universe.
			ON	
			OFF	
	Source loss action			What the IQ Micro will do when the DMX source is lost.
			Hold values	
			Blackout	
			Disable DMX	
	Source loss timeout	VALUE		Set the source loss timeout value (5 - 120 seconds)
			Confirm	
			Back	
	DMX rate			Changes the refresh rate of the DMX out.

		Adaptive	
		20 Hz	
		30 Hz	
		40 Hz	
Art-Net Idle resend			How often the IQ will regenerate Art-Net Packets even if no change is present.
		0.5s	
		1.0s	
		2.0s	
		4.0s	
Art-Net Idle resend			Choose the Art-Net Output protocol
		Base16	
		Hex	
		Decimal	
		ABC	
Network setup			Set the IP address of the IQ Micro
	IP address		
		VALUE	
	Mask		Set the subnet mask of IQ Micro (Disabled when Easy IP is Enabled)
		VALUE	
	Easy IP		This setting will ensure that software will search for all masks, not only for a specified subnet mask
		ON / OFF	
Node setup			
	Info		Information about the node
	LCD/ LED brightness		Adjust LCD and LED brightness settings for your needs.
		Off	
		Dimmed	
		Full	
Configuration			
	User cfg. 1 (node name)		User configuration profile 1
	Load		Button for loading the configuration settings
		Confirm	
		Back	
	Record		Button for recording the configuration settings
		Confirm	
		Back	
	Delete		Button for deleting the configuration settings
		Confirm	

		Back	
	User cfg. 2 (node name)		User configuration profile 2
	Load		Button for loading the configuration settings
		Confirm	
		Back	
	Record		Button for recording the configuration settings
		Confirm	
		Back	
	Delete		Button for deleting the configuration settings
		Confirm	
		Back	
Defaults			
	Port defaults		This setting will restore port defaults
	Load		
		Confirm	
		Back	
	Protocol defaults		This setting will restore protocol defaults
	Load		
		Confirm	
		Back	
	Reset all settings		This setting will restore factory defaults (will reset ALL settings)
	Reset		
		Confirm	
		Back	

Main Menu Overview

Port Direction
Universe Number
Data Activity Status

RDM Status

IQ Micro Node name

Q Micro IP Address
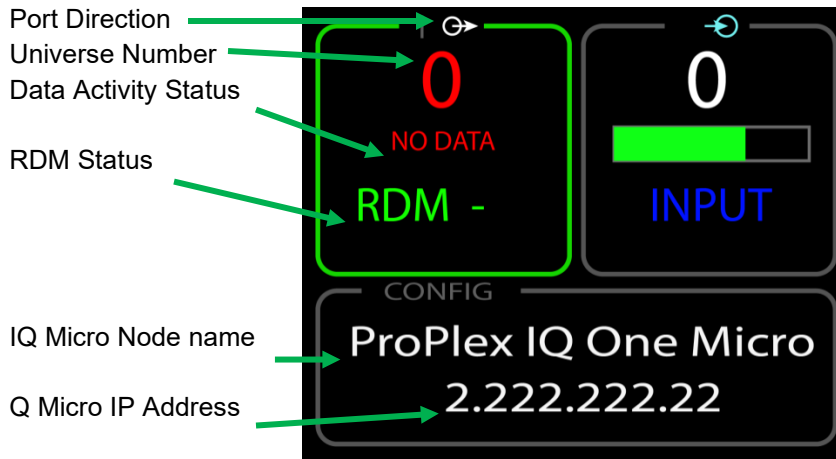
Left Side	Right Side
Port 1 direction (output in example) **Data activity status** (no data) **Universe number** (0) **RDM status** (ON)	**Port 2 direction** (input) **Data activity status** (data input with above 50% activity) **Universe number** (0)

Bottom

Node Name: (ProPlex IQ One Micro)

Node IP Address: (2.222.222.22)

DMX Port Activity LED Overview

The IQ Micro has RGBW activity LEDs at each output port.

DMX port status indicators:

- DMX port status LED is RED: There is no incoming DMX signal from the network.
- DMX port status LED is ORANGE (full power): Port is configured as a DMX output and the DMX output is active.
- DMX port status LED is ORANGE (dim): Port is configured as a DMX output and there is no active DMX output.
- DMX port status LED is BLUE (full power): Port is configured as a DMX input and DMX signal is present.
- DMX port status LED is BLUE (dim): Port is configured as a DMX input and there is no active DMX present.
- DMX port status LED is GREEN (intermittent): Port has active RDM packets.
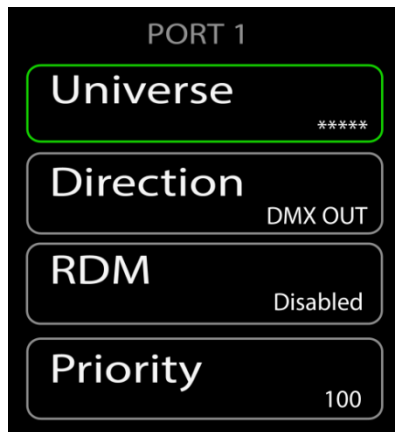
DMX Port Setup
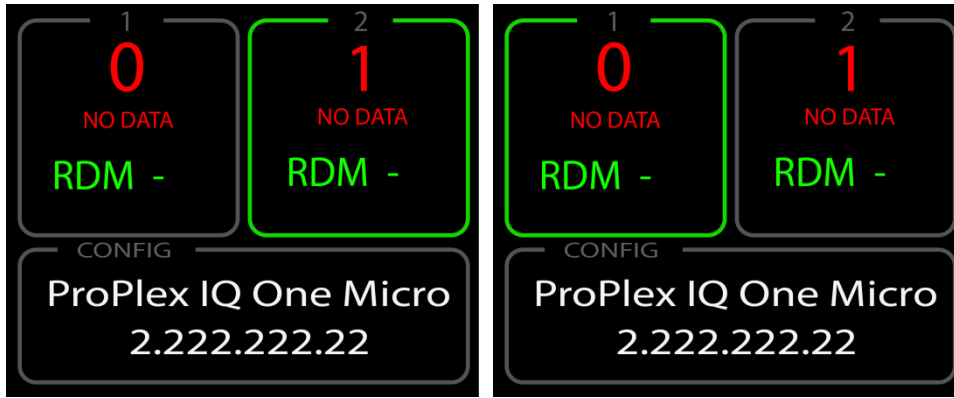
Using the **<UP>**, **<DOWN>**, **<LEFT>**, **<RIGHT>** buttons, select the DMX port to be changed. In the above images, the left image shows Port 2 selected and highlighted, and the right image shows Port 1 selected and highlighted.

By pressing the **<OK>** button, a DMX port setup menu will open:
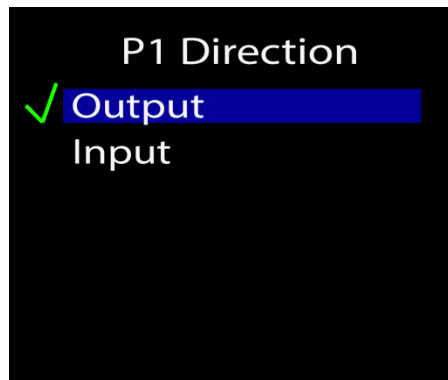

There are four pages of setup options: Universe, Direction, RDM, and Priority.

**Universe:**   Selecting the **"Universe"** option will open the following window.
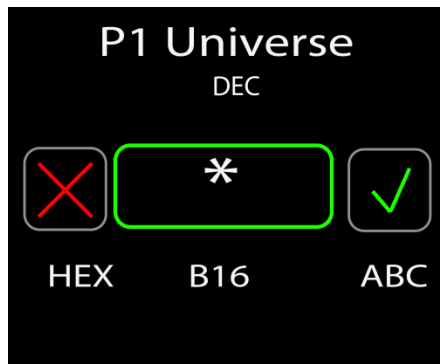
In this window, the universe number can be set (from 0 to 32767) for the selected DMX port (the example shows "Decimal" Universe Format).

Direction: By selecting "**Direction**", a new window will open:

This setting is used to change the port direction from input to output.

**RDM OFF/ON:**   By selecting "**RDM",** a new window will open.
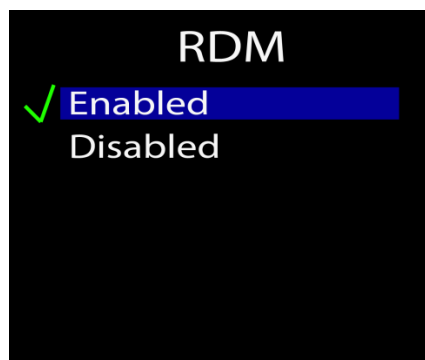
What is RDM?
Remote Device Management or RDM is a protocol enhancement to DMX512 that allows bi-directional communication between a lighting or system controller and attached RDM compliant devices over a standard DMX line. This protocol will allow configuration, status monitoring, and management of these devices in such a way that does not disturb the normal operation of standard DMX512 devices that do not recognize the RDM protocol, (source: www.rdmprotocol.org)

Note: RDM cannot be used when using the sACN protocol because the sACN protocol (E1.31) doesn't currently support RDM officially. Once ratified, this will be a simple software update for the IQ nodes.

**Priority:**   By selecting "**Priority**", a new window will open:
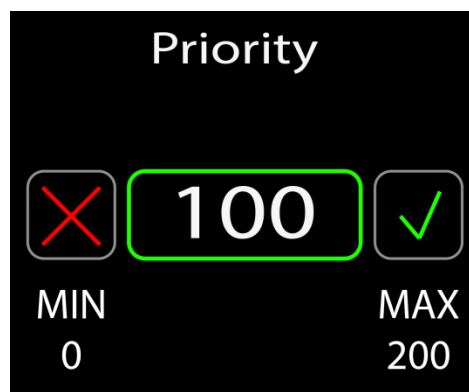
Here port priority (0 - 200) can be set. When signal is lost for the highest priority port, the DMX signal will be taken from the port that has the next highest priority when addressed to the same universe. This is useful when two DMX sources need to be prioritized while operating as the same DMX address. When two priority levels are the same, HTP Merging will occur.

Node Configuration Menu

The Node configuration menu is used to manage properties for the entire node.
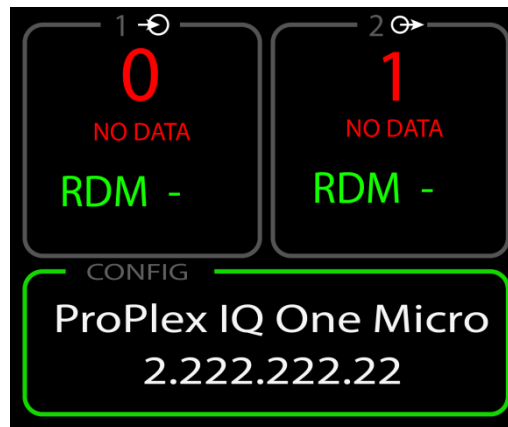
By pressing the <OK> button while the "Config" window (containing the Node Name and IP address) is selected, the configuration setup submenu will open:
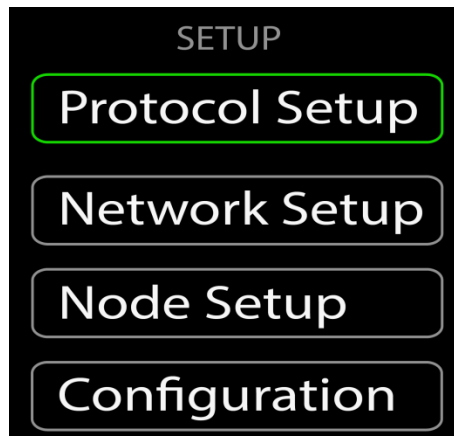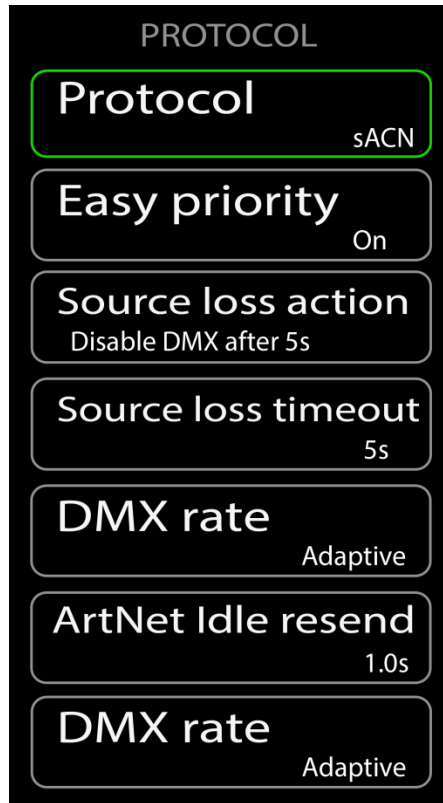
Use the **<UP>** and **<DOWN>** buttons to choose the desired submenu.
By pressing the **<OK> or <RIGHT>** button, the selected sub-menu will open.
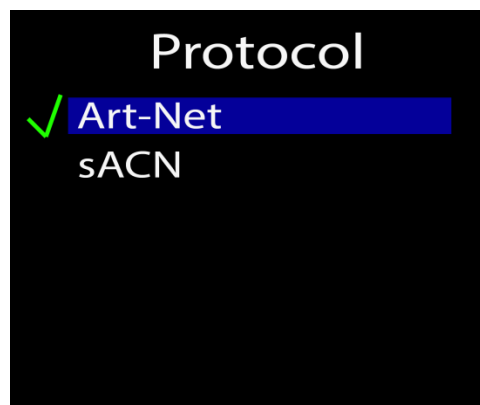By pressing the **<LEFT>** button, previous menu will open.

Four pages of setup options apply: Protocol setup; Network setup; Node setup; and Configuration
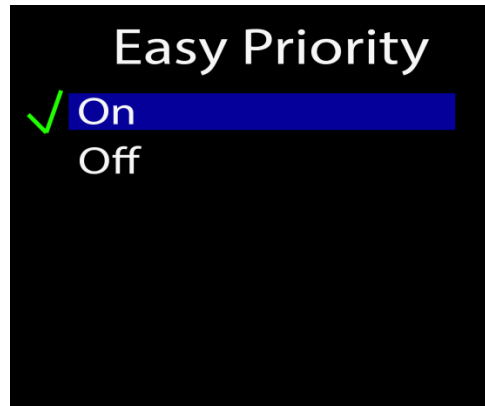
2. Protocol Setup

Protocol menu overview:

Protocol: By pressing the "**Protocol**" button, a new window will open

Select **Art-Net** or **sACN (e1.31)**.

Easy priority: By selecting "**Easy priority**", a new window will open.

Easy Priority can be **ON** or **OFF**.

What is Easy Priority?
When easy priority is ON, and two or more of the same Art-Net/sACN universes from different sources exist on the network and are used by a ProPlex IQ output port, the source with the higher channel 512 value for that universe will have control over that universe

Source loss action: By selecting "**Source loss action**", a new window will open.
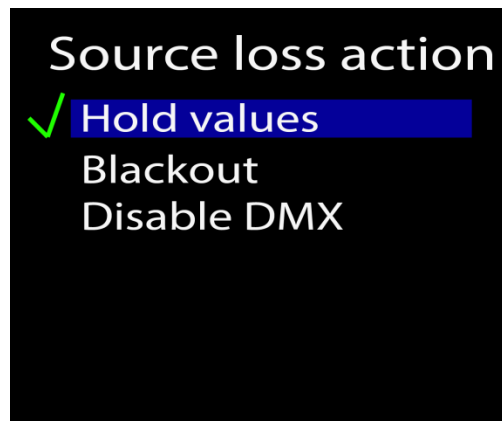
When the "**Hold values**" setting is selected after the DMX source is lost, the IQ Micro holds the last DMX values it recieved and continues to output these values until incoming DMX has been restored.

When the "**Blackout**" setting is selected after the DMX source is lost, all DMX values will change to value to 0 and will be held at this value until an incoming DMX source is restored.

When the "**Stop DMX**" setting is selected after the DMX source is lost, the IQ Micro will stop outputting DMX. When the DMX source is restored, the IQ Micro will continue outputting the DMX source.

Source loss timeout: By selecting ''**Source loss timeout**'', a new window will open.
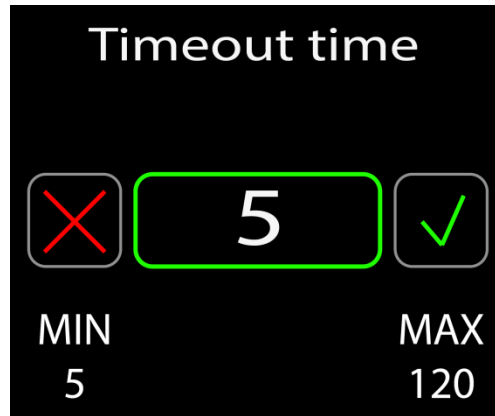
This setting determines how long the IQ Micro will wait before using the **Source Loss** setting. This time is set in seconds. (5-120). Once the source loss timeout threshold has been reached, the IQ Micro will revert to the Source Loss timeout setting.

**DMX Rate:** By selecting ''**DMX rate**'', a new window will open.
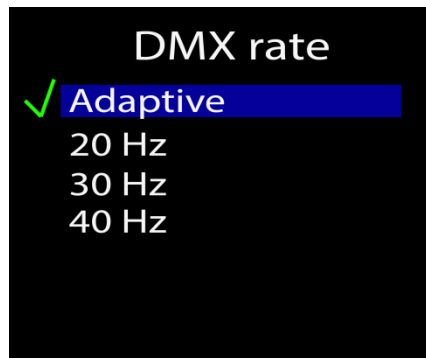
Select one of four options for **DMX out refresh rate**: Adaptive, 20Hz, 30Hz, 40Hz.

The DMX refresh rate setting controls how many times per second the IQ Micro outputs DMX over the 5-pin XLR connectors. Some DMX devices work better using different refresh rate settings.

In the cases of high-speed devices like LED walls and displays, using the "Adaptive" option can improve response time by matching the incoming refresh rate of DMX derived from the source. The setting can be referred to as "High Speed Video Adaptive mode." Adaptive mode matches the refresh rate of the DMX source with the DMX output. *Note: Some devices may not perform well with this setting as the refresh rate may exceed their ability to process the information.*

3. Network Setup

IP Address: By selecting the "**IP setup**" option, a new window will open.
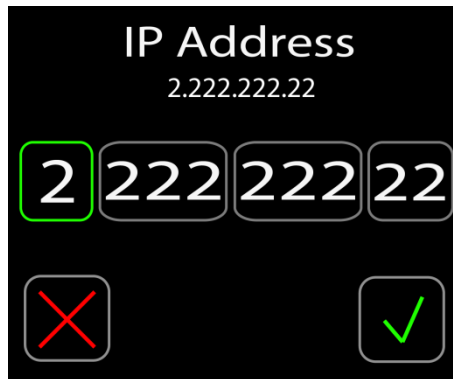
The IP address can be changed for the IQ Micro.

Subnet Mask: By selecting the "**Subnet mask**" option, a new window will open.
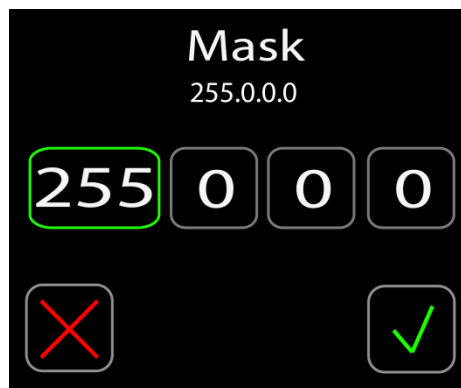
The Subnet mask of the IQ Micro can be changed. To change the assigned Subnet mask, replace the current network Subnet mask with the desired network Subnet mask.
Note: When Easy IP setting is "ON", Subnet mask settings cannot be changed.

Easy IP: By selecting "**Easy IP**", a new window will open.

This setting ensures that the IQ Micro searches all masks, not only within the specified Subnet.

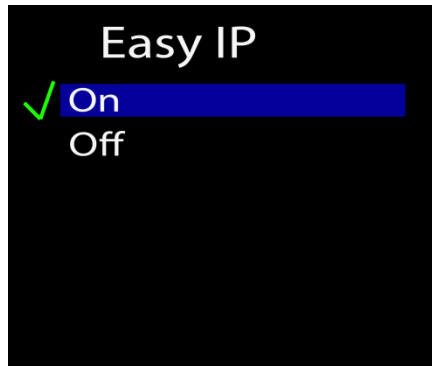When the Easy IP setting is turned ON, the Subnet mask cannot be changed.

Easy IP is very useful for most networking situations where subnet filtering isn't required. The IQ Micro automatically finds and outputs Art-Net and sACN information regardless of IP or Subnet Mask settings. Turning off Easy IP is useful when using subnet filtering to help separate different areas of a LAN when used in conjunction with a managed switch based network. An example of this would be multiple TV studios having independent networks all attached to one console.

Universe format: By selecting "**Universe format**", a new window will open.
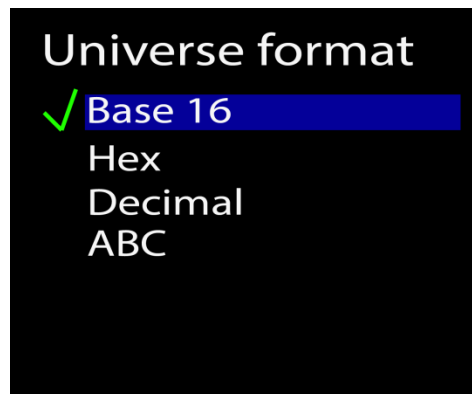
In this window the universe format can be selected. By default, the universe format is set to Hex (hexadecimal) but can be changed to Base 16 incremental decimal counting system or alphanumeric counting system.

Universe Numbering Order Visualized

HEX
- Art-Net (0, 0.0.1 – 0.0.9, 0.0.A - 0.0.F, 0.1.0 – 0.1.F – F.F.F)
- sACN (0.0.1-0.0.9, 0.0.A - 0.0.F, 0.1.0 - F.F.F)

BASE16
- Art-Net (0, 0.0.1 – 0.0.15, 0.1.0 – 0.1.15... 127.15.15)
- sACN (0.0.1 – 0.0.15, 0.1.0 – 0.1.15... 127.15.15)

Decimal
- Art-Net (0 – 32767)
- sACN (1 – 32767)

ABC (Alphanumeric)
- Art-Net (0, A - Z, AA – AZ, BA... AVLG)
- sACN (A - Z, AA – AZ, BA... AVLG)

4. Node Setup
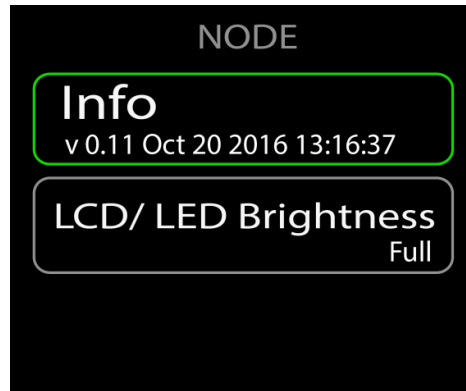
Info: By selecting "**Info**", a new window will open.

The node information is found in this window.

LCD/ LED Brightness: By selecting "**LCD/ LED Brightness**", a new window will open.

Select one of three settings: OFF, Dimmed, and Full

5. Configuration

The configuration menu is used to save and load User Configurations, load system defaults, and reset system settings.

User config: By selecting "**User config 1**" or "**User config 2**" options, a new window will open.

Three options are availble:

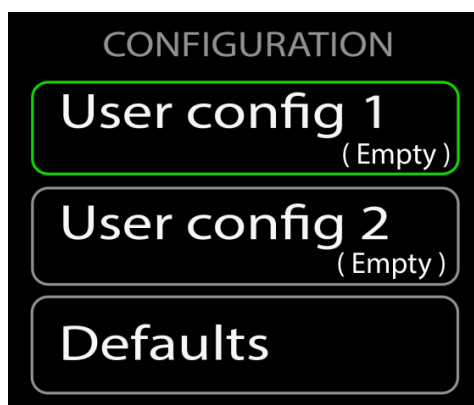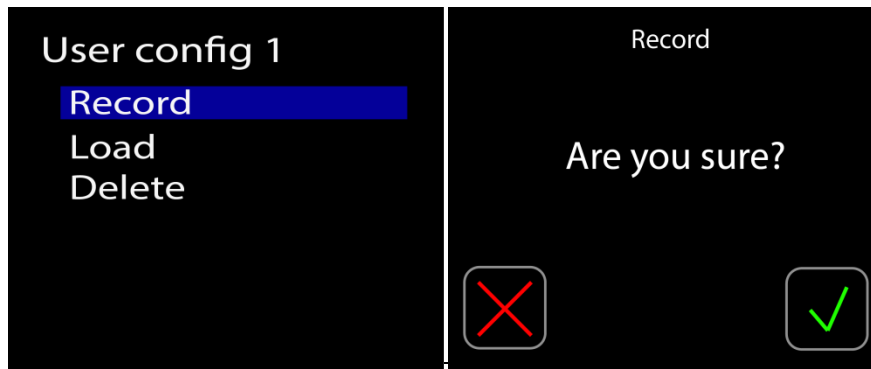**Record** will record all the current configuration settings on the device.
Load will load the saved configuration settings recorded with "**Record**" button.
Delete will delete the recorded setting.

When the "Load", "Record" or "Delete" button is pressed, a confirmation window will appear. Pressing the "✓" button will confirm the selection, and the "X" button will return to the previous menu.

Port defaults will reset all DMX port related settings.

Protocol defaults will reset all protocol related settings (sACN/ Art-Net settings).

Reset all settings will reset all settings and restart the system.

After pressing the Load/ Reset button, confirmation window will appear. Pressing "OK" will confirm the choice, "X" will return to the previous screen.

6. Appendix

Remote Configuration and Monitoring of IQ Nodes

ProPlex IQ Ethernet to DMX nodes can be configured and monitored via two methods: ProPlex IQ RDM Manager software and via a web browser.

The ProPlex IQ RDM Manager software is available as a free PC download from www.tmb.com . This software includes a full suite of configuration and monitoring features, and makes managing multiple nodes on a network extremely easy. The Software also includes a RDM management suite for devices connected the IQ nodes or via a ProPlex RDMigo Cable.
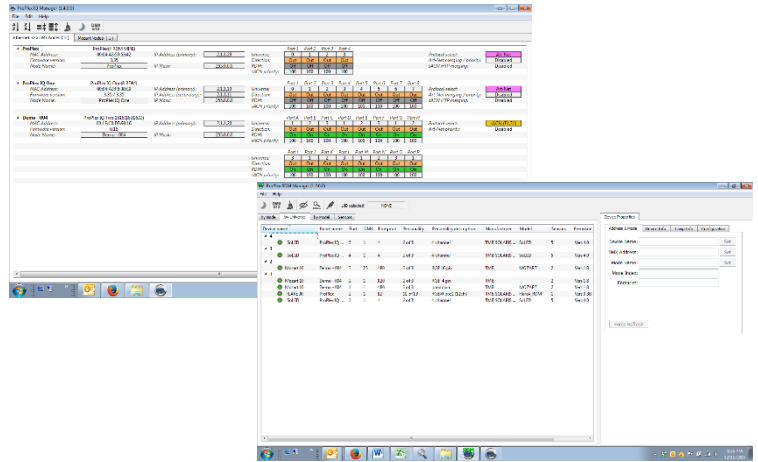
ProPlex IQ Ethernet to DMX nodes can also be remotely configured via their onboard webserver. Using a PC or Mac internet browser, connect to individual IQ nodes by typing their IP address into the internet address bar.

For more information on the ProPlex IQ RDM Manager software, RDMigo Cable, and other ProPlex IQ series products, please visit www.tmb.com.
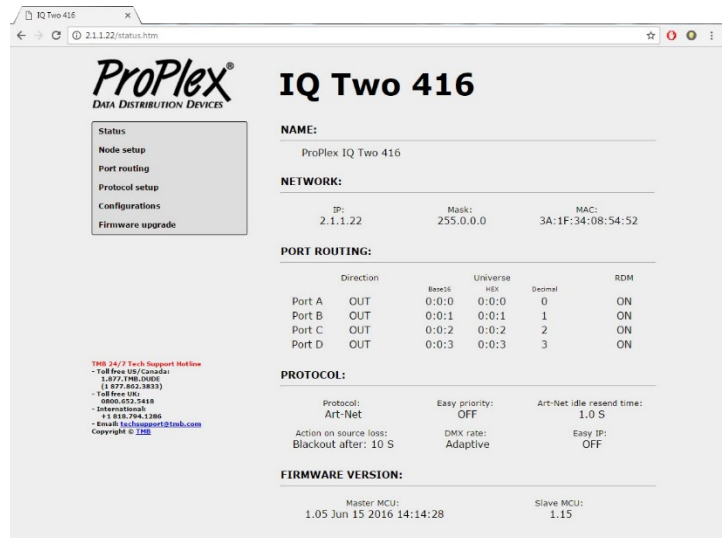
RDM Functionality

Flare IQ Micro is equipped with RDM Functionality. Below are the RDM functions available in these devices. TMB has many options for RDM control of your devices: ProPlex RDMigo and IQ RDM Manager Software; ProPlex Striker; and ProPlex MasterFade. Additionally, ProPlex RDM Opto-Splitters and the ProPlex IQ product range offer many means of RDM over DMX data distribution.

Main	Sensor Count	Patch
Name	Present value	Protocol selection
Address	Lowest value	Easy Priority
	Highest value	Art-Net configuration mode
		DMX refresh setup
		Port configuration

Limited Warranty

ProPlex Data Distribution Devices are warranted by TMB against defective materials or workmanship for a period of two (2) years from the date of original sale by TMB.

TMB's warranty shall be restricted to the repair or replacement of any part that proves to be defective and for which a claim is submitted to TMB before the expiration of the applicable warranty periods.

This Limited Warranty is void if the defects of the Product are the result of:

- Opening the casing, repair, or adjustment by anyone other than TMB or persons specifically authorized by TMB
- Accident, physical abuse, mishandling, or misapplication of the product.
- Damage due to lightning, earthquake, flood, terrorism, war, or act of God.

TMB will not assume responsibility for any labor expended, or materials used, to replace and/or repair the Product without TMB's prior written authorization. Any repair of the Product in the field, and any associated labor charges, must be authorized in advance by TMB. Freight costs on warranty repairs are split 50/50: Customer pays to ship defective product to TMB; TMB pays to ship repaired product, ground freight, back to Customer.

This warranty does not cover consequential damages or costs of any kind.

A Return Merchandise Authorization (RMA) Number must be obtained from TMB prior to return of any defective merchandise for warranty or non-warranty repair. For all repairs please contact TMB Tech Support Repair using the contact information below or email TechSupportRepairNA@tmb.com.

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Fax: +1 818.899.8813
tmb-info@tmb.com
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tmb-info@tmb.com
www.tmb.com

Return Procedure

Please send returned merchandise prepaid and in the original packing. Freight call tags will not be issued for shipping the product to TMB, but TMB will pay the freight for return to the customer. Clearly label package with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will delay service. Please contact TMB and request an RMA # prior to shipping the unit. Be prepared to provide the model number, serial number, and a brief description of the cause for the return. Be sure to properly pack the unit; any shipping damage resulting from inadequate packaging is the customer's responsibility. TMB reserves the right to use its own discretion to repair or replace product(s). Proper UPS packing or double-boxing will better ensure product integrity when shipped.

Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:
1) Your name
2) Your address
3) Your phone number
4) The RMA #
5) A brief description of the symptoms

ProPlex IQ Micro – Technical Specifications

Technical Specifications	
Part Number	PPIQC215MCD
Ethernet Ports	1
DMX Ports	2
DMX Connectors	Neutrik XLR5 Female (NC5FAV)
DMX Port Isolation	Optical, up to 1000 V
Ethernet Connector	Neutrik EtherCON RJ45
Ethernet Type	10/100 Base-T
Network Protocols	ArtNet, sACN (E1.31)
Additional Features	RDM; HTP merging; easy priority; sACN priority
Power	24/48 VDC (PoE In)
Power Consumption	2.5 W
Cooling	Convection
Operating Temp.	-20 to +40 ºC
Operating Humidity	10-85%
Unit Dimensions w/Plate (WxHxD)	5.7 x 3.34 x 2 in (146 x 84.9 x 51 mm)
Unit Dimensions w/o Plate (WxHxD)	4.9 x 3.34 x 1.875 in (124.6 x 84.9 x 47.6 mm)
Unit Weight (unpacked)	14.5 oz. (0.4 kg)
Packed Dimensions (WxHxD)	TBD
Shipping Weight	TBD
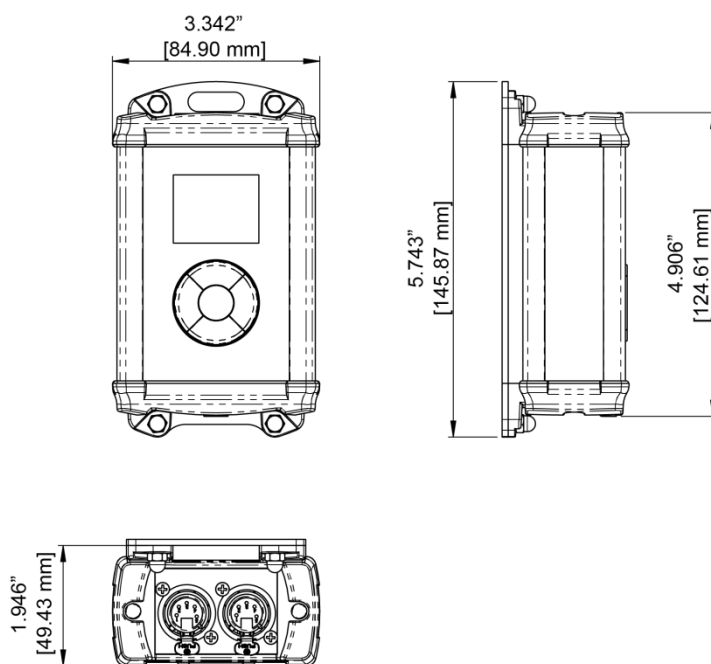
CONTACT INFORMATION

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