

Makito Air™ v2.3 Quick Start Guide

This Quick Start Guide summarizes the basic steps required to install and configure the Makito Air Ruggedized HD/SD H.264 Video Encoder (single chassis, as shown below) to stream to your compatible decoding device. Please refer to the Makito User's Guide or the online help (available from the Web Interface) for detailed information.



Installing the Makito Air

1. Unpack the box and visually inspect the package contents for any evidence of shipping damage. [See Important Notice for list of contents.]
2. Fasten the Makito Air to a flat surface (such as an equipment bay or rack) using the four (4) threaded mounting holes (#10-32 screws).
3. Customers are responsible for assembling their own cables. Please refer to [“Connector Mapping”](#) on page 5 for connector pinouts.



CAUTION Special care must be taken when wiring the supply. This unit is not protected against polarity reversal, and if it occurs, the unit will be damaged (servicing will be required). The cabling must be done in such a way as to maintain the safety, electrical and environmental integrity of the product.

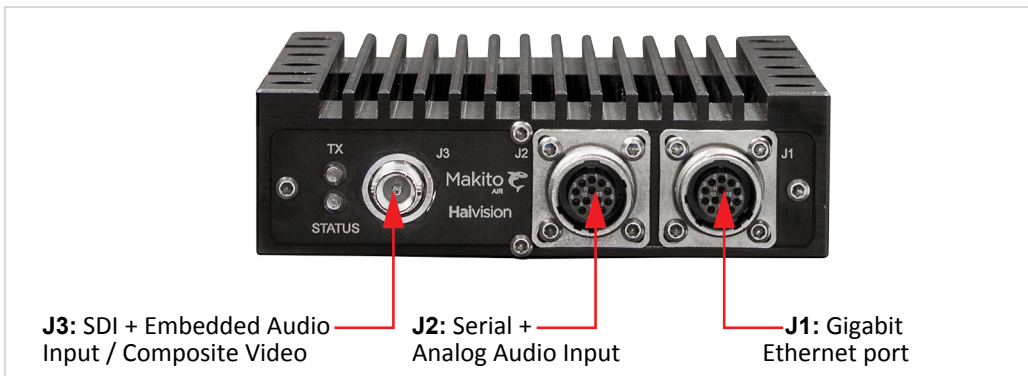
4. Connect the DC input power cable to the power input [J10] at the rear of the unit.
5. Connect the chassis ground wire to the ground lug at the rear of the unit.



Makito Air Rear Panel

Connecting the Makito Air to the Network and A/V Sources

1. Connect the Makito Air's Ethernet port [J1] to the IP network using a Type Cat 5E cable.



Makito Air Front Panel

2. Connect the Makito Air's Serial port [J2] to the metadata source using a Serial RS-232 cable.
3. Connect the Makito Air's SDI Video/Embedded Audio Input [J3] to your Audio/Video sources using the BNC connector and a coaxial cable.

NOTE: The Makito Air also supports Composite video as well as Analog audio formats. Selection between Analog (the default) and SDI audio can be done via the Web Interface ([ENCODER>AUDIO](#) Settings page).

Setting Up Streaming from the Makito Air

1. Power on the Makito Air.
2. The Makito Air comes pre-configured with the following settings:

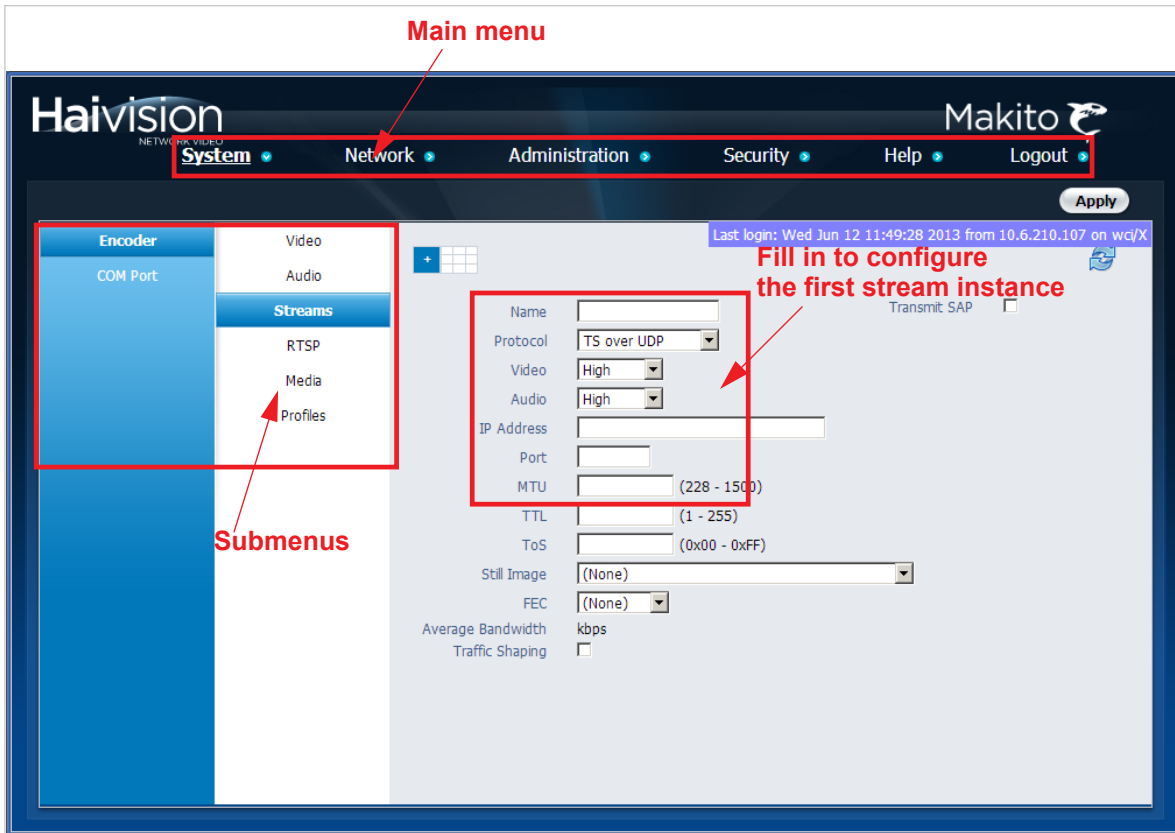
IP Address	Subnet Mask	Gateway
10.5.1.2*	255.255.0.0	10.1.50.1

* The IP address of your computer must be in the same subnet.

3. To set up a stream to your compatible decoding device, open a Web browser, type the IP Address for the Makito Air into the URL address bar, and press Enter.
4. Log in to the Makito Air Web Interface, using the following default administrative username and password: [*Be sure to change the default password!]

Admin Username	Password
admin	manager*

- Click **SYSTEM** from the main menu and then **ENCODER>STREAMS** from the submenus to open the **STREAM SETTINGS** page (shown below).



- Select **TS over UDP** for the Stream Type.
- Type in Multicast Address **225.6.7.8** for the Stream IP.
- Type in Port # **2000** for the Stream Port.
- Click **Apply**.
- Make sure your decoding device is:
 - supporting UDP Transport Stream format,
 - turned on,
 - connected to a display (if applicable),
 - accessible on the same network segment as the Makito Air, and
 - “tuned” to the Makito Air multicast address (225.6.7.8) / port # (2000).

To Modify the Makito Air's IP Address

- Click **NETWORK** from the main menu to open the **NETWORK SETTINGS** page (shown on the following page).



2. Type in the new IP address. If required, select or enter other new value(s) in the appropriate field(s).
3. To save your changes, click Save.
4. To apply your changes, click Reboot. (You must reboot the system for the changes to take effect.)



NOTE You may need to change your computer network settings to be on the same network segment as the Makito Air.

For More Information

Contact Haivision Technical Support via our Support Portal on our website at: <http://support.haivision.com>

Or you may use the phone number or email address listed below:

North America:	Toll Free: 1-877-224-5445
International:	Tel: 1-514-334-5445
	Fax: 1-514-334-0088
Technical Support email:	tickets@haivision.com
Product Information email:	info@haivision.com

You may download the firmware, Readme file, and PDF versions of the User's Guide and Quick Start Guide through our Knowledge Base at: <http://www.haivision.com/support/knowledgebase/>

Connector Mapping

J1 Connector Pinout (Ethernet)
(13 pin female Amphenol MIL-DTL-38999/
20MB35SN)

Pin #	Pin Name	Type	Description
1	ETH_DAP	BI	10/100 BASE-T Transmit differential pair / Gigabit Ethernet differential pair A (bi-dir)
2	ETH_DAN	BI	
3	ETH_DBP	BI	10/100 BASE-T Receive differential pair / Gigabit Ethernet differential pair B (bi-dir)
4	ETH_DBN	BI	
5	ETH_DCP	BI	10/100 BASE-T (Unused) / Gigabit Ethernet differential pair C (bi-dir)
6	ETH_DCN	BI	
7	ETH_DDP	BI	10/100 BASE-T (Unused) / Gigabit Ethernet differential pair D (bi-dir)
8	ETH_DDN	BI	
9	NC		Not Connected
10	NC		Not Connected
11	NC		Not Connected
12	RESETN	IN	Hardware Reset (signal is asserted LOW)
13	GND	REF	Ground

J2 Connector Pinout (Serial Port / Analog Audio)
(13 pin female Amphenol MIL-DTL-38999/
20MB35SA)

Pin #	Pin Name	Type	Description
1	COM_TXDP	OUT	Serial Interface: RS-232/RS-422 Transmit Data [only use J2-Pin2 in RS232 mode (shaded in gray)]
2	COM_TXDN	OUT	
3	GND	REF	Shield
4	COM_RXDP	IN	Serial Interface: RS-232/RS-422 Receive Data [only use J2-Pin4 in RS232 mode (shaded in gray)]
5	COM_RXDN	IN	
6	GND	REF	Shield
7	AUD_IN_LP	IN	Analog Audio interface: LEFT channel differential pair
8	AUD_IN_LN	IN	
9	AUD_LGND	REF	Audio Ground
10	AUD_IN_RP	IN	Analog Audio interface: RIGHT channel differential pair
11	AUD_IN_RN	IN	
12	AUD_RGND	REF	Audio Ground
13	NC		Not Connected

J3 Connector Pinout (Video Coaxial)
(75-ohm BNC)

Pin #	Pin Name	Type	Description
1	VID	IN	SDI / Composite video signal
2	VID_GND	REF	SDI / Composite ground (Cable shield)

J10 Connector Pinout (DC Power)
(5 pin male Amphenol MIL-DTL-38999/
20MB5PN)

Pin #	Pin Name	Type	Description
A	PWR_IN	REF	PSU +28VDC Input
B	PWR_GND	REF	PSU ground return
C	NC		No connection
D	NC		No connection
E	NC		No connection