

# AQT8 QAM/IP QUICK GUIDE



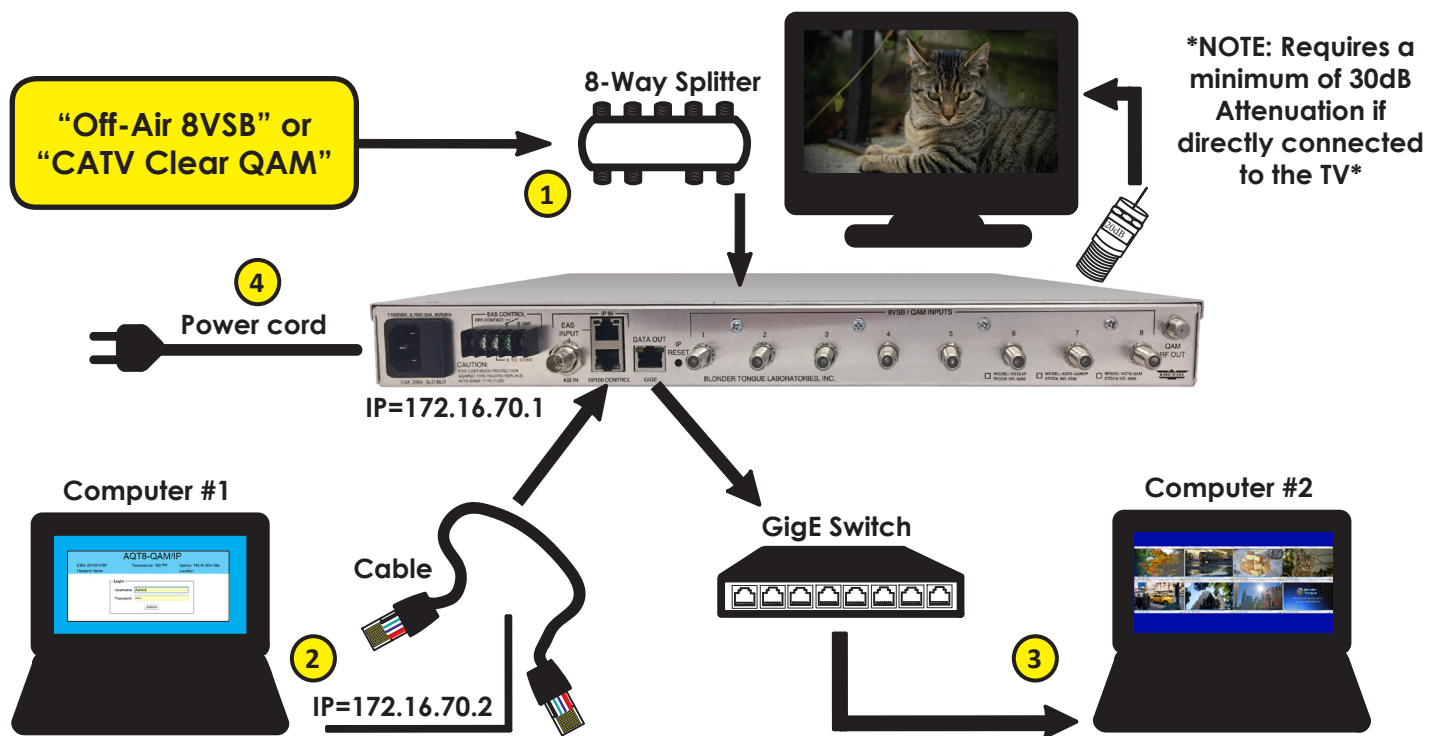
You may view this guide as an instructional video:

<https://youtu.be/FXus4cP7VhQ>



## STEP 1 - Connect Inputs

- 1 Up to 8 terrestrial and/or clear QAM inputs via an 8-Way Splitter are connected to the 8VSB/QAM Inputs.
- 2 Connect computer #1 with a web browser to the 10/100 CONTROL port directly using the supplied cable.
- 3 Connect computer #2 with an installed media player (VLC player or equivalent) to a GigE switch and then connect GigE switch to the Data Out port on the unit.
- 4 Connect the power cord to the AQT8.



## STEP 2 - Login

- Assign "172.16.70.2" as the static IP address for computer #1.
  - Enter "172.16.70.1" into your Browser to access the AQT8.
  - Log In: Username is "Admin" and the password is "pass".
- NOTE: The default IP address for the AQT8 Series is "172.16.70.1".

Login	
Username:	<input type="text" value="Admin"/>
Password:	<input type="password" value="...."/>
<input type="button" value="Submit"/>	

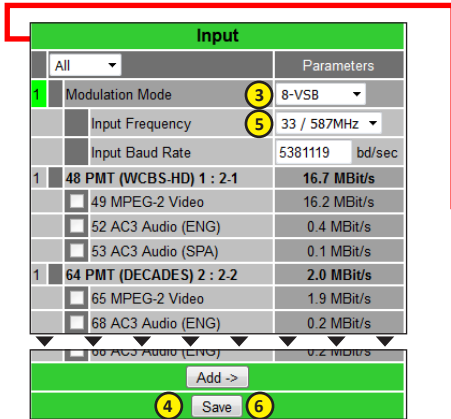
# STEP 3 - Select Inputs

Go to the "Input Map" page:

- 1 Select "Edit" at the top of the Input table.
- 2 Change the input selection pull down to "All".
- 3 Select Modulation Mode for each input. Default is "8VSB". For Clear-QAM inputs, select applicable modulation mode. If a RF input is not locked to an input or is not used, select "Not Used" in the modulation mode box.
- 4 Click "Save".
- 5 Select desired "channel input/frequency" for each input.
- 6 Click "Save".



The MAXIMUM total number of outputs is 20. See Appendix C in the User Manual for more details.



**AQT8-QAM/IP**

ESN: 2014040600      Temperature: 99.9°F      Uptime: 30d 1h 46m 34s  
Headend Name:      Location:

Main    Network    Time    Event Log    Logout    Admin

Status	Input Map	MPTS Output Config	IP Output Config	Output	QAM	EAS	Refresh
	IP Output	Current Selected Bitrate	Previously Selected Bitrate	Total Output Bitrate			
	1	0.0	+ 18.4	= 18.4			
	2	0.0	+ 19.0	= 19.0			
	3	0.0	+ 18.4	= 18.4			
	4	0.0	+ 18.4	= 18.4			
	5	0.0	+ 18.4	= 18.4			
	6	0.0	+ 18.4	= 18.4			
	7	0.0	+ 18.4	= 18.4			
	8	0.0	+ 18.4	= 18.4			

The first program stream selected will become the "low priority" program in the output stream. This setting is configurable via the [MPTS Output Config](#) page.

Duplicate PIDs/Program Numbers/Channels/Channel Names may exist when adding programs. Please see the [MPTS Output Config](#) page to apply the necessary corrections.

**Input**

1 Edit

2 All

Input	Parameters
1	Modulation Mode: 8-VSB
	Input Frequency: 33 / 587 MHz
	Input Baud Rate: 5381119 bd/sec
1	48 PMT (WCBS-HD) 1 : 2-1    16.7 MBit/s
	49 MPEG-2 Video    16.2 MBit/s
	52 AC3 Audio (ENG)    0.4 MBit/s
	53 AC3 Audio (SPA)    0.1 MBit/s
1	64 PMT (DECADES) 2 : 2-2    2.0 MBit/s
	65 MPEG-2 Video    1.9 MBit/s
	68 AC3 Audio (ENG)    0.2 MBit/s

Add ->

4 Save    6 Save

IP Output	Bitrates
Output 1 - 239.10.10.10:50008	18.4 MBit/s
1	48 PMT (WCBS-HD) 1 : 10-1    16.7 MBit/s
	49 MPEG-2 Video    16.2 MBit/s
	52 AC3 Audio (ENG)    0.4 MBit/s
	53 AC3 Audio (SPA)    0.1 MBit/s
1	64 PMT (DECADES) 2 : 10-2    1.7 MBit/s
	65 MPEG-2 Video    1.5 MBit/s
	68 AC3 Audio (ENG)    0.2 MBit/s
Output 2 - 239.10.10.10:50009	19.0 MBit/s
2	48 PMT (WNBC ) 3 : 11-1    15.0 MBit/s
	49 MPEG-2 Video    14.4 MBit/s
	52 AC3 Audio (ENG)    0.4 MBit/s
	53 AC3 Audio (SPA)    0.2 MBit/s
2	64 PMT (COZI-TV) 4 : 11-2    2.7 MBit/s
	65 MPEG-2 Video    2.5 MBit/s

Add ->

Save

# STEP 4 - Verify Inputs are locked

Verify the front panel LED lights are green for each input.



# STEP 5 - Check SNR

Go to the Status page:

- 1 >22 dB SNR for 8VSB; >33 dB for QAM 256 is recommended.

(Increase the RF input level as required to achieve the desired SNR).

The screenshot shows the 'Status' page with a navigation bar at the top containing 'Main', 'Network', 'Time', 'Event Log', 'Logout', and 'Admin'. Below the navigation bar is a sub-menu with 'Status', 'Input Map', 'MPTS Output Config', 'IP Output Config', 'Output', 'QAM', 'EAS', and 'Refresh'. The main content area displays two tables: 'Input Status' and 'Output Status'. The 'Input Status' table has columns for 'Input', 'SNR', 'RF Chan', 'TS Rate (Mbps)', and 'Actual Data Rate (Mbps)'. The 'Output Status' table has columns for 'RF Chan' and 'Status'. The 'Status' column in the 'Output Status' table shows 'Locked' for channels 2, 3, 4, 5, 6, 7, and 8.

Input	SNR	RF Chan	TS Rate (Mbps)	Actual Data Rate (Mbps)	RF Chan	Status
1	28.3	33 / 587MHz	19.4	18.6	2 / On	Locked
2	25.3	28 / 557MHz	19.4	19.1	3 / On	
3	28.9	33 / 587MHz	19.4	18.6	4 / On	
4	27.2	33 / 587MHz	19.4	18.6	5 / On	
5	27.9	33 / 587MHz	19.4	18.6	54 / On	
6	28.0	33 / 587MHz	19.4	18.6	55 / On	
7	28.3	33 / 587MHz	19.4	18.6	56 / On	
8	29.8	33 / 587MHz	19.4	18.6	57 / On	

# STEP 6 - Configure QAM Output

Go to "QAM" page to setup output channels:

- 1 Select the 1st channel for each set of 4 consecutive QAM outputs.
- 2 Ensure all outputs are enabled (set to "On") and "CW Control" is not selected/enabled.
- 3 "Output Selection" allows user to select a TS stream for each QAM output. The options are as follows:

- IP Out 1 through IP Out 8
- Default IP or Default RF: QAM1 gets TS from IP Out 1 or RF1 (input), QAM2 gets TS from IP Out 2 or RF2 (input), and so on.

(NOTE: The Output Select will be fixed on Default RF when Output Mode selection in Step 7 is IP Pass Through.)

- 4 Select the QAM modulation under "Output QAM Mode".
- 5 Click "Save".

The screenshot shows the 'QAM' configuration page with a navigation bar at the top containing 'Main', 'Network', 'Time', 'Event Log', 'Logout', and 'Admin'. Below the navigation bar is a sub-menu with 'Status', 'Input Map', 'MPTS Output Config', 'IP Output Config', 'Output', 'QAM', 'EAS', and 'Refresh'. The main content area displays the 'RF Output Level' set to 40 dBmV. Below this are two sections for 'QAM Module 1' and 'QAM Module 2'. Each module has settings for 'Output Channel/Frequency', 'Output Control', 'CW Control', 'Output Select', 'Output QAM Mode', 'Output QAM Data Rate', 'Output QAM Interleaver', 'Output QAM Alpha', and 'QAM Lock State'. The 'Output QAM Mode' is set to 2568. A 'Save' button is at the bottom.

# STEP 7 - Configure Output

Go to the "Output" page:

- 1 Select number of IP outputs (from 1 to 8), "IP Disabled" or "IP Pass Through". In "IP Pass Through" mode, all programs on RF Inputs 1-8 are passed through to IP Outputs 1-8.
- 2 Click "Save".

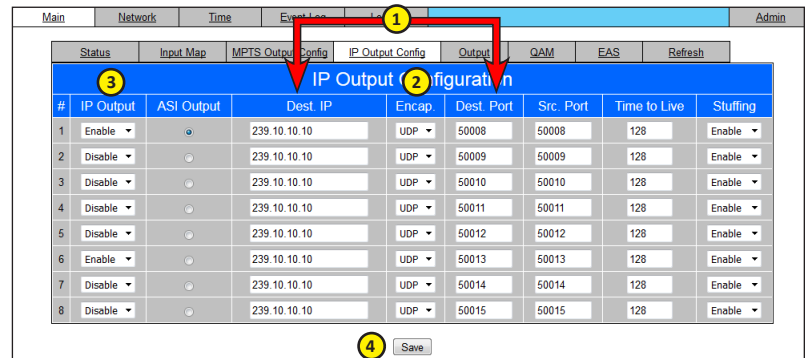
The screenshot shows the 'Output' configuration page with a navigation bar at the top containing 'Main', 'Network', 'Time', 'Event Log', 'Logout', and 'Admin'. Below the navigation bar is a sub-menu with 'Status', 'Input Map', 'MPTS Output Config', 'IP Output Config', 'Output', 'QAM', 'EAS', and 'Refresh'. The main content area displays the 'Output Mode' set to '8x IP Outputs'. Below this is a table with 'Input Status' and 'Output Status' columns. The 'Output Status' column shows 'On' for all channels. A 'Save' button is at the bottom.

Input	RF Chan / Frequency	RF Channel/State
1	33 / 587MHz	2 / On
2	28 / 557MHz	3 / On
3	33 / 587MHz	4 / On
4	33 / 587MHz	5 / On
5	33 / 587MHz	54 / On
6	33 / 587MHz	55 / On
7	33 / 587MHz	56 / On
8	33 / 587MHz	57 / On

# STEP 8 - Configure IP Output

Go to the "IP Output Config" page:

- 1 Configure the "Dest IP" and "Dest port" for each output stream. Coordinate with the IT System Administrator for required IP addresses.
- 2 Select the encapsulation, "RTP" or "UDP", based on the receiving unit's capabilities.
- 3 "Enable" the IP Output. (NOTE: Must be enabled when QAM output control in Step 6 is set for IP)
- 4 Click "Save".



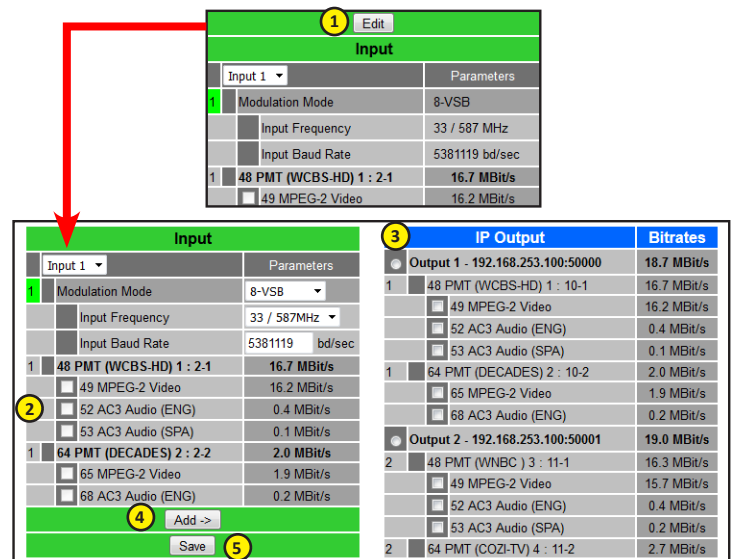
# STEP 9 - Select Output

Go back to the "Input Map" page:

- 1 Select the "Edit" button at the top of the Input table.
- 2 Put check marks next to desired programming by clicking the appropriate box(s).
- 3 Select the Output.
- 4 Click "Add".

Repeat for each output program. The unit supports 1 video and 3 audios for each program. Video starts streaming once added to the IP Output table.

- 5 Click "Save" when done.



# STEP 10 - Perform channel scan on TV

Perform channel scan on TV. (CATV Digital - standard).

Confirm channel output on TV. Note that the TV will display the virtual channel numbers as set by the content provider and not those set in step 6.

# STEP 11 - Confirm Streaming Programs

Open the media player (VLC or equiv. media player on computer #2). Enter IP addresses as assigned in Step 8 and confirm programs are being streamed.

Firmware updates are available in the "Tech Support" section of the website. The full manual (PDF) is available on the product page located on our website at:

[www.blondertongue.com](http://www.blondertongue.com)