

# AQT8 QAM/IP QUICK GUIDE



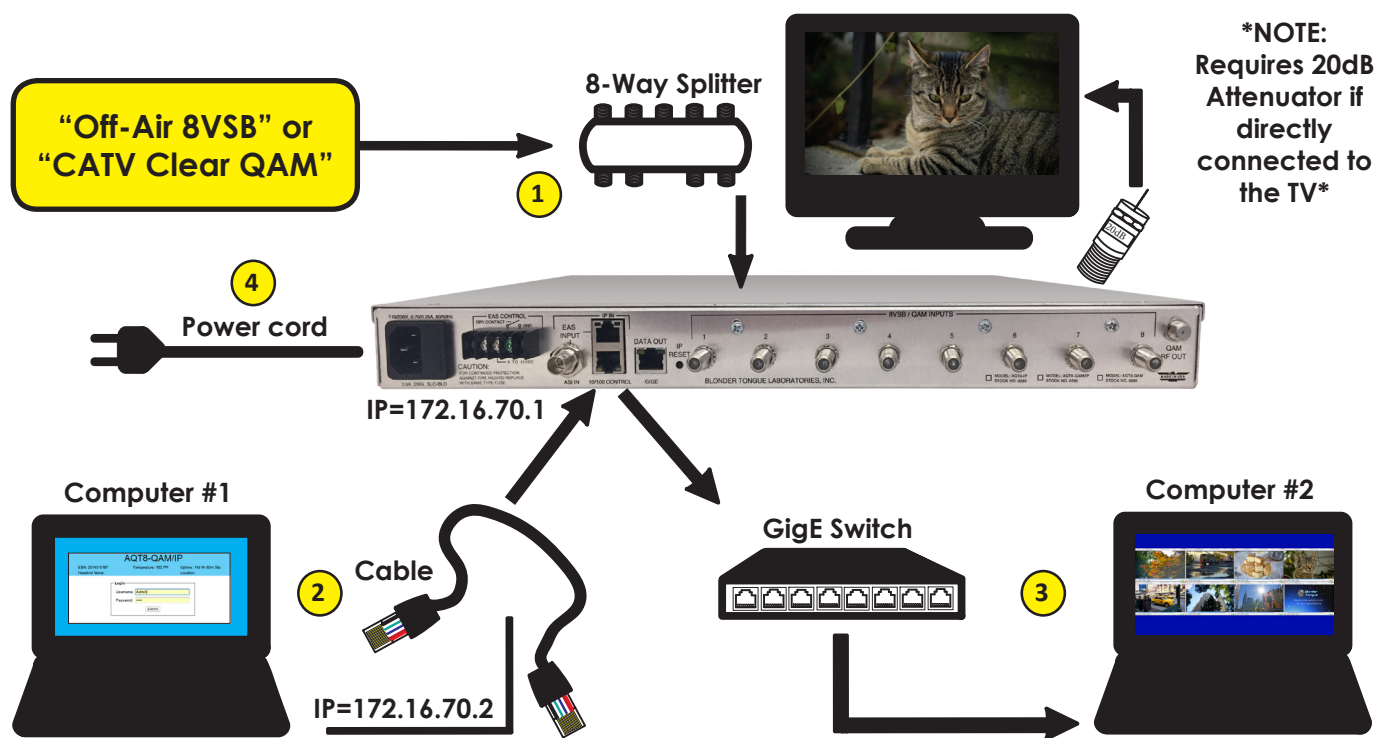
You may view this guide as an  
**Instructional Video:**

For IP SET-UP: <https://www.youtube.com/watch?v=Pib3MSs3I70>  
For QAM SET-UP: <https://www.youtube.com/watch?v=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.
  - Login with Username: "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 IP Output – Input table.
- 2 Change the input selection pull down to "All".
- 3 Select Modulation Mode for all inputs. Default is "8VSB". For Clear-QAM inputs, select applicable modulation mode. If the RF input is not locked to an input or not used, select "Not Used" in the modulation mode box.
- 4 Click "Save".
- 5 Select desired "channel input/frequency".

Repeat mode and input settings for all inputs.

- 6 Click "Save".



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

Input	
All	Parameters
1	Modulation Mode 3 8-VSB
	Input Frequency 5 33 / 587MHz
	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
	69 AC3 Audio (ENG) 0.2 MBit/s
Add ->	
Save	

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.				
Edit				
Input				
All	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 1.7 MBit/s			
	65 MPEG-2 Video 1.5 MBit/s			
	68 AC3 Audio (ENG) 0.2 MBit/s			
Add ->				
Save				
IP Output				
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) 0.1 MBit/s			
2	64 PMT (COZI-TV) 4 : 11-2 2.7 MBit/s			
	65 MPEG-2 Video 2.5 MBit/s			

# 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).

Main	Network	Time	Event Log	Logout	Admin		
Status	Input Map	MPTS Output Config	IP Output Config	Output	QAM	EAS	Refresh
Input Status				Output Status			
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	Locked	
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 QAM outputs.
- 2 Ensure all outputs are “enabled” and “CW Control” is not selected/enabled.
- 3 Output Selection allows user to select TS stream for each QAM output. 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: When using any of the IP settings, the particular IP output must be “Enabled”. See Step #8.)

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

Main	Network	Time	Event Log	Logout	Admin					
Status	Input Map	MPTS Output Config	IP Output Config	Output	QAM	EAS	Refresh			
RF Output Level 40 dBmV										
QAM Module 1										
1 Output Channel/Frequency	2 / 57MHz	3 / 63MHz	4 / 69MHz	5 / 79MHz						
2 Output Control	On	On	On	On						
CW Control	Enable CW for QAM Module									
3 Output Select	Default IP	Default IP	Default IP	Default IP						
Output QAM Mode	256B									
Output QAM Data Rate	5 360500 Mbaud									
Output QAM Interleaver	128-1									
Output QAM Alpha	12%									
QAM Lock State	Lock									
QAM Module 2										
Output Channel/Frequency	54 / 403MHz	55 / 411MHz	56 / 417MHz	57 / 423MHz						
Output Control	On	On	On	On						
CW Control	Enable CW for QAM Module									
Output Select	Default IP	Default IP	Default IP	Default IP						
Output QAM Mode	256B									
Output QAM Data Rate	5 360500 Mbaud									
Output QAM Interleaver	128-1									
Output QAM Alpha	12%									
QAM Lock State	Lock									
				5 Save						

# STEP 7 - Configure Output

Go to the “Status” page:

- 1 Select number of IP outputs (from 1 to 8) or disabled.
- 2 Click “Save”.

Main	Network	Time	Event Log	Logout	Admin		
Status	Input Map	MPTS Output Config	IP Output Config	Output	QAM	EAS	Refresh
Output Mode 1 8x IP Outputs							
Input Status				Output Status			
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			
				2 Save			

# 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".

#	IP Output	ASI Output	Dest. IP	Encap	Dest. Port	Src. Port	Time to Live	Stuffing
1	Enable	<input checked="" type="checkbox"/>	239.10.10.10	UDP	50008	50008	128	Enable
2	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50009	50009	128	Enable
3	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50010	50010	128	Enable
4	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50011	50011	128	Enable
5	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50012	50012	128	Enable
6	Enable	<input checked="" type="checkbox"/>	239.10.10.10	UDP	50013	50013	128	Enable
7	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50014	50014	128	Enable
8	Disable	<input type="checkbox"/>	239.10.10.10	UDP	50015	50015	128	Enable

# 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.

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

IP Output	Bitrates
Output 1 - 192.168.253.100:50000	18.7 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: 2.0 MBit/s 65 MPEG-2 Video: 1.9 MBit/s 68 AC3 Audio (ENG): 0.2 MBit/s
Output 2 - 192.168.253.100:50001	19.0 MBit/s
2	48 PMT (WNBC) 3 : 11-1: 16.3 MBit/s 49 MPEG-2 Video: 15.7 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

# 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.

For more information and the full manual, please visit the website's product page at:  
[www.blondertongue.com](http://www.blondertongue.com)