

ATSC To QAM Processor

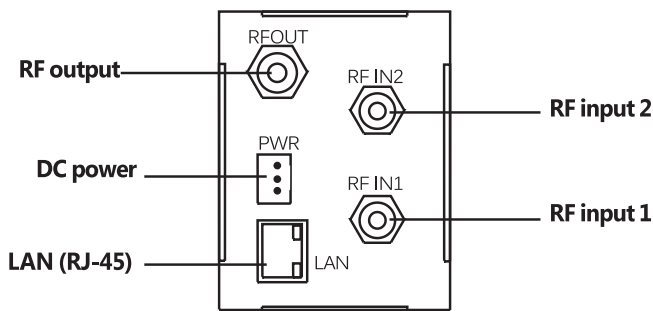
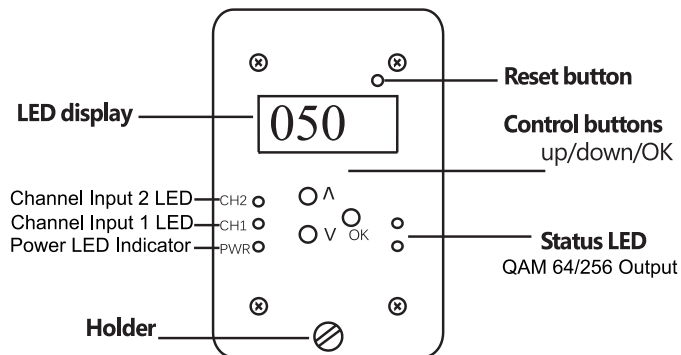
AQP-2230

INSTRUCTION MANUAL

INTRODUCTION

Thank you for buying the AQP-2230 ATSC to QAM processor. Please read this manual carefully to install, use and maintain the modulator in the best conditions of performance. Keep the manual at hand for future reference.

General description



Main features

- ◆ 2U design
- ◆ Quick Boot-up
- ◆ Covers frequency range from 54 to 860MHz
- ◆ Local control via friendly front button Control Panel
- ◆ Remote control via supplied utility

SAFETY INSTRUCTION

All the safety and operating instructions should be read before the product is operated. For safety purpose all instructions are adhered to.

Cleaning

Unplug the unit from the rack before cleaning. Do not use liquid or aerosol cleaners, use a damp cloth.

Attachments

Do not use attachment that are not recommended by manufacturer as they can cause hazards.

Water and moisture

Do not use this product near water.

Mounting

Ensure the unit is rack mounted securely on the wall or in the 19" cabinet as not to cause harm to anyone or to damage the product by being dislodged.

Power cord protection

Power-supply cords should be routed so they are not pinched or placed where they could cause a trip hazard.

Ventilation

Slots and openings in the housing are provided for ventilation to prevent overheating and ensure reliable operation. These openings should never be blocked or covered by placing the unit on a carpet, flooring, furniture or fabric surface. The unit should not be placed in a built-in structure such as a cupboard or rack unless proper ventilation is provided.

Power source

This unit should only be operated from the type of power source indicated in the technical specification (page 3 of this manual).

Lightning

For added protection of this unit; unplug it from the wall when left unattended or unused for long periods of time and disconnect the cable system. This will protect the product from lightning strike or power surges.

Object and liquid entry

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out part that could result in a fire or electric shock. Never spill liquid of any kind on the unit.

Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage requiring service

Unplug this unit from the wall or the cabinet and return it to the qualified service personnel for servicing if any of the following occurs:

- The power supply cord or plug is damaged.
- Liquid has been spilled, or objects have fallen into the unit.
- The unit has been exposed to rain or water.
- If the unit has been dropped or damaged in anyway.

Heat

The unit should be positioned away from any heat source such as radiators, fireplaces, cooking stoves, or other products (including amplifiers) that produce heat.

SPECIFICATIONS

Input channel

Combinations: 2×ATSC / 2×QAM / 1×ATSC + 1×QAM

Input 8VSB

Tuning range: UHF: 14-69, VHF: 2-13

Frequency range: 54-806MHz

Data rate: 19.392Mbps

Input QAM

Channel range: 2-134

Frequency range: 54-860MHz

QAM mode: 64QAM / 256QAM

Data rate: 26.9Mbps (64QAM), 38.8Mbps

Stream

PSIP: MGT/CVCT/STT regenerator

RF output

RF carriers: 2

Channel range: 2-134

Frequency range: 64QAM / 256QAM

Data rate: 26.9Mbps (64QAM), 38.8Mbps

Control

Local operation: Figure 8 number LED, Buttons

Remote operation: Web browser

General

Dimensions: 68×50×250 mm

Weight: 0.8 kg

Power source: DC 12V/ DC 5V

PWR. consumption: 12W

GENERAL OPERATION

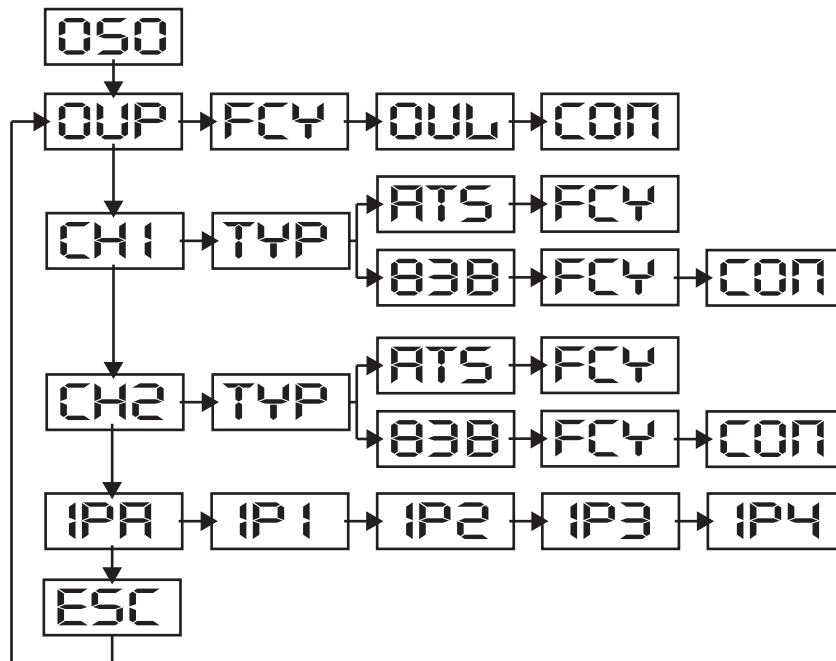


In the menus and submenus, press the UP or DOWN buttons to scroll up or down.
In the settings, press the UP or DOWN buttons to modify values.



In the menus, press the OK button to select submenu.
In the submenus, press the OK button to select the setting.
In the settings, press the OK button to confirm the setting.

QUICK MENU GUIDE



The display will return to the first page when all the settings are done.

OPERATING ADJUSTMENT VIA LED DISPLAY AND BUTTONS

Output

OUP

Following the flow charts enter the 'Output' mode.

FCY

Press the OK button to enter Frequency. Press the OK button to access frequency adjustment mode. Use the UP or DOWN buttons to set the frequency. Press the OK button to save (54-850 MHz).

OUL

Use the same steps as above to set the Output Level (75-90 dBuV).

CON

Use the same steps as above to set the Constellation (QAM64, QAM256).

y

When all the items in 'OUP' are done, there will be a confirmation on the display. Press the UP or DOWN buttons to select YES or NO. Select **'y'** for yes, all the settings above will be stored in the memory. Select **'n'** for no to cancel.

Input channel 1

CH1

Following the flow charts enter the 'CH1' input channel 1 mode.

TYP

Press the OK button to enter Type selection. Use the UP or DOWN buttons to select the 'ATS' for ATSC type or the '83B' J.83 annex B type.

FCY

Press the OK button to enter frequency. Press the OK button to access frequency adjustment mode. Use the UP or DOWN buttons to set the frequency. Press the OK button to save. (54-850MHz).

CON

Use the same steps as above to set the Constellation (QAM64, QAM256).

y

When all the items in 'CH1' are done, there will be a confirmation on the display. Press the UP or DOWN buttons to select YES or NO. Select **'y'** for yes, all the settings above will be stored in the memory. Select **'n'** for no to cancel.

Input channel 2

CH2

Following the flow charts enter the 'CH2' input channel 2 mode.

TYP

Press the OK button to enter Type selection. Use the UP or DOWN buttons to select the 'ATS' for ATSC type or the '83B' J.83 annex B type.

FCY

Press the OK button to enter frequency. Press the OK button to access frequency adjustment mode. Use the UP or DOWN buttons to set the frequency. Press the OK button to save. (54-850MHz).

CON

Use the same steps as above to set the Constellation (QAM64, QAM256).

y

When all the items in 'CH2' are done, there will be a confirmation on the display. Press the UP or DOWN buttons to select YES or NO. Select **'y'** for yes, all the settings above will be stored in the memory. Select **'n'** for no to cancel.

IP address

IPA

Following the flow charts enter the 'IPA' IP address mode.

IP1

Press the OK button to enter IP1. Press the OK button to access IP adjustment mode. Use the UP or DOWN buttons to set the first number of IP1. Press the DOWN button to advance to the next digit and UP and DOWN button to set (0-999). Press the OK button to save.

IP2

Use the same steps as above to set the IP2 numbers. (0-999)

IP3

Use the same steps as above to set the IP3 numbers. (0-999)

IP4

Use the same steps as above to set the IP4 numbers. (0-999)

y

When all the items in 'IPA' are done, there will be a confirmation on the display. Press the UP or DOWN buttons to select YES or NO. Select **'y'** for yes, all the settings above will be stored in the memory. Select **'n'** for no to cancel.

EXIT

ESC

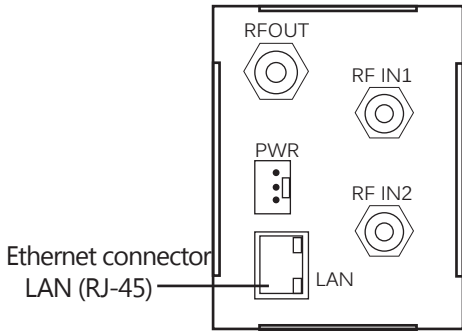
Press the OK button to exit.

CONNECTION TO THE WEB INTERFACE

Ethernet connection

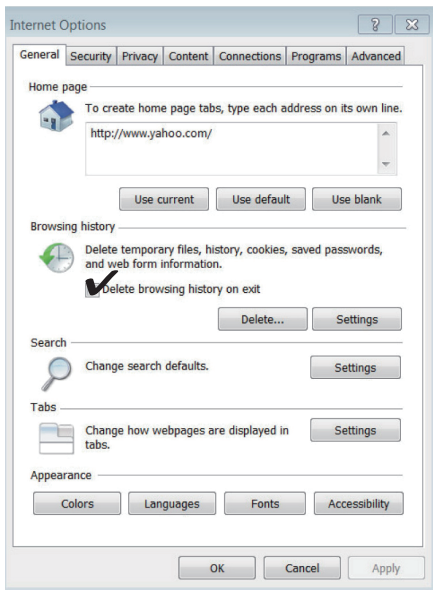
The web browser allow the user fully configure the AQP-2230 unit via an Ethernet connection and a web browser.

A. Connect the PC to the LAN port of the AQP-2230 unit. See below diagram.



B. The configuration process must be made in local mode, although later you will be able to access the unit from any PC in the LAN.

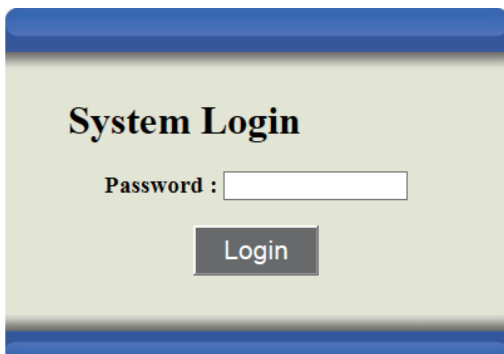
C. Launch the web browser and delete browsing history.



D. Enter the AQP-2230 IP address.



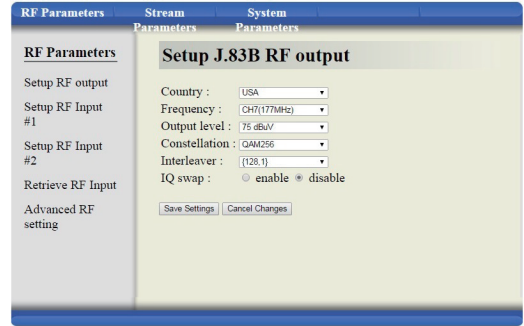
E. Click on ENTER to access the welcome screen.



F. Enter the default password '1234'.

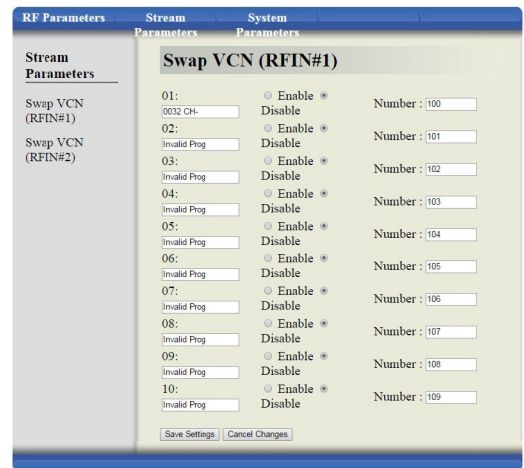
RF parameters

User can edit the parameters like Country, Frequency...etc in this RF parameters.



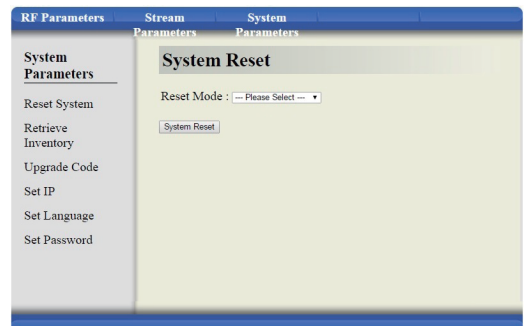
Stream parameters

User can edit the Swap VCN in 'Stream parameters'.

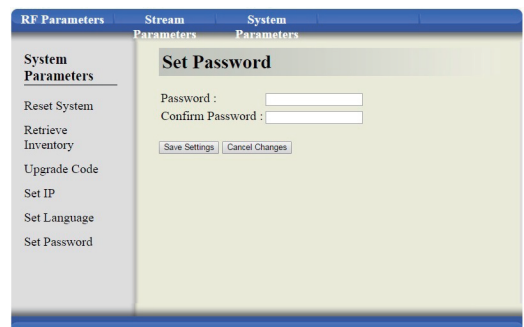


System parameters

User can reset the system or retrieve inventory in 'System parameters'.



The password configuration enables user to change the current password for access to the web interface of AQP-2230 unit.



APPENDIX A - U.S.A Channel Frequency Assignments (Cable)

Ch No.	Center Freq. (MHz)	Ch No.	Center Freq. (MHz)	Ch No.	Center Freq. (MHz)	Ch No.	Center Freq. (MHz)	Ch No.	Center Freq. (MHz)
2	57	29	255	56	417	83	579	110	711
3	63	30	261	57	423	84	585	111	717
4	69	31	267	58	429	85	591	112	723
5	79	32	273	59	435	86	597	113	729
6	85	33	279	60	441	87	603	114	735
7	177	34	285	61	447	88	609	115	741
8	183	35	291	62	453	89	615	116	747
9	189	36	297	63	459	90	621	117	753
10	195	37	303	64	465	91	627	118	759
11	201	38	309	65	471	92	633	119	765
12	207	39	315	66	477	93	639	120	771
13	213	40	321	67	483	94	645	121	777
14	123	41	327	68	489	95	93	122	783
15	129	42	333	69	495	96	99	123	789
16	135	43	339	70	501	97	105	124	795
17	141	44	345	71	507	98	111	125	801
18	147	45	351	72	513	99	117	126	807
19	153	46	357	73	519	100	651	127	813
20	159	47	363	74	525	101	657	128	819
21	165	48	369	75	531	102	663	129	825
22	171	49	375	76	537	103	669	130	831
23	219	50	381	77	543	104	675	131	837
24	225	51	387	78	549	105	681	132	843
25	231	52	393	79	555	106	687	133	849
26	237	53	399	80	561	107	693	134	855
27	243	54	405	81	567	108	699		
28	249	55	411	82	573	109	705		

APPENDIX B - DTV Channel Table List for ATSC (AIR)

Ch.	Center Freq. (MHz)	Ch.	Center Freq. (MHz)	Ch.	Center Freq. (MHz)
2	57	25	539	48	677
3	63	26	545	49	683
4	69	27	551	50	689
5	79	28	557	51	695
6	85	29	563	52	701
7	177	30	569	53	707
8	183	31	575	54	713
9	189	32	581	55	719
10	195	33	587	56	725
11	201	34	593	57	731
12	207	35	599	58	737
13	213	36	605	59	743
14	473	37	611	60	749
15	479	38	617	61	755
16	485	39	623	62	761
17	491	40	629	63	767
18	497	41	635	64	773
19	503	42	641	65	779
20	509	43	647	66	785
21	515	44	653	67	791
22	521	45	659	68	797
23	527	46	665	69	803
24	533	47	671		