

Thank you for your purchase of the Adtec EN-20 Encoder. This product is sold with optional QAM modulator hardware packages. Configurations and indicators relevant to those add-on packages are noted here. If you purchased this product without a QAM modulator, please ignore settings noted with an asterisks (*).

The most recent firmware releases are available on our support website, www.adtecdigital.com. Advanced users can find direct API command help as part of the on-board web application, Help Tab.

Channel 1 & 2

Encode

- Not Active
- Encoding
- Transitioning

Video

- No Video (Audio Only)
- Video Present
- Format Not Supported
- No Video Present /Disabled

SD

- SD Resolution Detected

HD

- 1080i Resolution Detected
- 720p Resolution Detected

EAS

- EAS is Active
- EAS is Active (audio only)

* QAM

A/B/C

- A
- B
- C (not supported)

64/128/256

- Active

Units ship with the front panel logged in by default. If you become logged out and are prompted for a password, use the following key sequence for access. Press <Select> when panel displays 'User Login -- logged out'

Press <Up arrow>
 Press <Select>
 Press <Enter>
 Press <Right arrow>
 Press <Enter>

Services	* RF Tx	IP Tx	Video	Audio	PIDS	VBI	Profile	CAS	System
TX MUX Rate	Mod Encoding	<< IP 1-4 >>	<< CH1 CH2 >>	Sample Freq.	<< CH1 CH2 >>	<< CH1 CH2 >>	Select	Mode	Login
AutoFill	Mod Mode	Mode	Input	<< CH1 CH2 >>	PMT PID	Source	Save	Clear SW	Duration
Tables	Output Format	Tx IPA	SDI Mode	Input	PCR PID	Closed Cap.	Delete	Encrypt SW	Network
TSID	UpCnv Channel	Tx Port	Chroma	Mode	Video PID	VITC Mode		User ID 1	Time
<< CH1 CH2 >>	UpCnv Power	DVB per IP	Video Rate	Type	Aud 1 PID			User ID 2	NTP
Active	Frequency	RTP	SD Video Mode	Rate	Tlxt PID				Alarm
Service Name		FEC Mode	Aspect Ratio	Level	VITC PID				SNMP
Service Provider		FEC L	AFD	Sync					COM2
Program #		FEC D	GOP Type	Musicam Mode					Features
Logical Ch #		FEC TOS Bits	GOP Structure	SDI Audio Group					Name
Major Number		TOS	GOP Size	SDI Audio Matrix					Firmware
Minor Number		TTL		SDI Clock Source					
		TX Connector		ECC					
		Service Select							

Front Panel Menus:

MODE Use Mode Button to move through top layer menus.

↑ Use arrows for navigation in submenus.

SELECT Use select to enter into edit mode and **ENTER** enter to save selection.

Reset:
Should you need to reset your device, you can do so via the front panel by pressing the MODE, ESCAPE and RIGHT ARROW keys simultaneously.

Quick View

Video Resolution	Frame Rate	Video Bit Rate
1920x1080	29i	33.77M
1DD 192K		48
Audio Input	Sampling Rate	

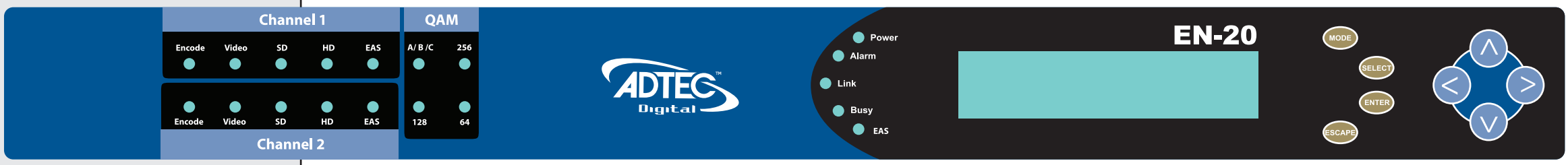
For each encoder, there is a quick view menu. You can scroll through the two views by pressing the down arrow button.

System LED Status

- Power**
- Power is OFF
 - Power is ON
- Alarm**
- No System Alarm
 - Minor Alarm
 - Major Alarm

- Link**
- No Link Detected
 - Link Active
- Busy**
- No Network Traffic
 - Network Traffic Present

- EAS**
- EAS is Active



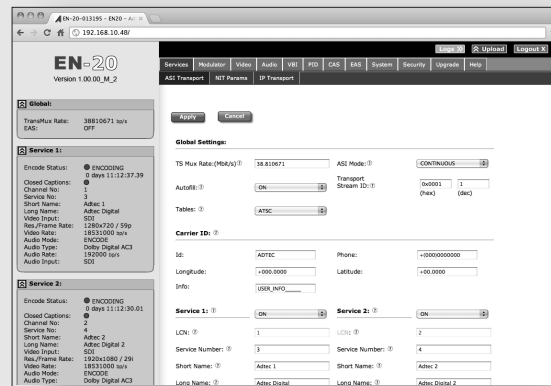
Getting Connected

To begin, you will need to connect to your EN-20 via ethernet directly, or by adding the EN-20 to your local area network. The default address for all Adtec devices is 192.168.10.48.

To connect directly to the device, make sure that your computer and the device have IP addresses within the same IP class range (ex. 192.168.10.48 for the device and 192.168.10.49 for your computer). If you need to change the IP address of the device, this can be done via the front panel, System > Network menu. Using a CAT 5 crossover cable, connect one end to your computer and the other to the Ethernet port found on the processor section of the back panel. (Some computers can auto negotiate the connection and a crossover may not be necessary.)

To add the device to a LAN, connect a standard CAT 5 Ethernet cable to your network router and then to the Ethernet port on the back of the device. If your network is DHCP enabled and you prefer that over a static IP, you can turn on DHCP for the device via the front panel, System > Network menu.

Web-Based Control Application



The left-hand panel of the application will report current status in real-time while the right panel tabs will allow you to configure your device.

Adtec Digital has adopted zero-configuration networking technology, streamlining the setup and configuration processes for our products. The use of this technology enables automatic discovery of Adtec devices and services on an IP network. Used in tandem with the web-based control and configuration applications we can now provide 1-click access to any device.

By using the built-in Bonjour® locator in Apple's® Safari® browser or the plug-ins readily available for IE® or Firefox® browsers, users can locate all of the Adtec devices on a network by referencing the Host Name of the device. You can locate the Host Name of the unit by viewing the setting on the front panel (SYSTEM > NAME). Clicking on the unit in the Bonjour® list will re-route you to a login page. If you do not wish to use Bonjour, you can reach the device's web application by pointing your browser to the IP Address of the device. Ex. http://192.168.10.48/. You will be prompted for a username and password. The default username is 'adtec'. The default password is 'none'.

Have questions? Each field or group of fields in our web-based application has a hint button associate with it. It contains information on use of the field or acceptable ranges.

Getting Started

Once your encoder is accessible via network, you can set it up for transmission. You will need to adjust the configurations using the front panel or web UI. As you make changes, you will see the status sections on the left hand side of the web UI adjust. These status sections report the majority of the critical information needed for monitoring during a transmission.

Each of these status menus can be collapsed by clicking on the icon. This allows you to view only that information which is most critical for you, but keeps a LED indicator visible for all sections at all times for alarms.

EN-20
Version 1.00.00_M_2

Global:

TransMux Rate: 38810671 bp/s
EAS: OFF

Service 1:

Encode Status: ENCODING
0 days 11:12:37.39

Closed Captions:

Channel No: 1
Service No: 3
Short Name: Adtec 1
Long Name: Adtec Digital
Video Input: SDI
Res./Frame Rate: 1280x720 / 59p
Video Rate: 18531000 bp/s
Audio Mode: ENCODE
Audio Type: Dolby Digital AC3
Audio Rate: 192000 bp/s
Audio Input: SDI

Global Status: Includes global conditions of the output.

Service 1: These values indicate the service or program data being used in your transmission as well as status of the first encoder.

Service 2:

Encode Status: ENCODING
0 days 11:12:59.21

Closed Captions:

Channel No: 2
Service No: 4
Short Name: Adtec 2
Long Name: Adtec Digital 2
Video Input: SDI
Res./Frame Rate: 1920x1080 / 29i
Video Rate: 18531000 bp/s
Audio Mode: ENCODE
Audio Type: Dolby Digital AC3
Audio Rate: 192000 bp/s
Audio Input: SDI

Service 2: These values indicate the service or program data being used in your transmission as well as status of the secondary encoder.

IP Status:

1 NOT TRANSMITTING
2 NOT TRANSMITTING
3 NOT TRANSMITTING
4 NOT TRANSMITTING

IP Status: These values indicate the status of IP Egress including address, port and FEC parameters.

QAM/RF:

Encoding/Mode: ANNEX_B - 256
Channel Number: 10
Symbol Rate: 55.360537 MSps
Frequency: 195000000 Hz
Power Level: 45 dBmV

***QAM Modulator Status:** Devices containing the optional modulator will display this status window indicating activity and critical output data.

Processor

Power	AC Power - Standard 3 pin plug (70-240 VAC 50 - 60 Hz)
GigE	GigE Interface - SPTS/MPTS, UDP, RTP, RTPw/FEC
COM2	API Serial Communication Interface
COM1	Serial Port Used for Troubleshooting
Ethernet	10/100 base T Ethernet interface

Video/Audio Input

Input 1 & 2 - SDI	BNC 75 Ohm - SD/HD-SDI Auto frame rate and resolution detection SD-SDI (SMPTE 259M - 270 Mbit/s) embedded audio per SMPTE 272M HD-SDI (SMPTE 272M - 1.485 Gbit/s) embedded audio per SMPTE 299M
Input 1 & 2 - CVBS	BNC 75 Ohm - SD Composite PAL / NTSC
Input 1 & 2 - Audio	DB9/Analog
N/A	Intended for future use.
EAS In Video	RCA female/jacks
EAS In Audio1 & 2	RCA female/jacks for unbalanced audio

Output

ASI Out 1 & 2	BNC 75 Ohm, Asynchronous Serial Interface (EN 50083-9)
* RF Main	F-style RF female jack, Freq: 50 to 862 Mhz, 45 dBmV to 56 dBmV in 1.0 dB
* IF In / Out	F-style RF female/jack, Freq: 44 MHz
NOTE: The included IF loopback cable must be installed between the IF In/Out connectors prior to power up for the Modulator to work properly.	
EAS Control	9-Pin Interface - To enable EAS mode, short pins 5 to 7.

