

# EN-260


## H.264 HDTV ENCODER EN-260





## **SAFETY NOTES**

**Read the user's manual before using the equipment, mainly " SAFETY RULES " paragraph.**

The symbol  on the equipment means "SEE USER'S MANUAL". In this manual may also appear as a Caution or Warning symbol.

**WARNING AND CAUTION** statements may appear in this manual to avoid injury hazard or damage to this product or other property.



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# H.264 HDTV ENCODER EN-260

## 1 GENERAL

### 1.1 Description

Encoder's structure is as per above picture, which consists of A/D process unit, encoding unit, TS process unit, data output unit and CPU control.

#### Video audio Process:

- Compatible with H.264-AVC standard.
- MPEG-1 layer 2 audio encoding.
- Support HDMI, SD/HD SDI (not implemented), Y Pb Pr and CVBS(SD) input.
- IP output with UDP protocol.

The output TS is compliant with DVB ASI and Ethernet (UDP ) format.

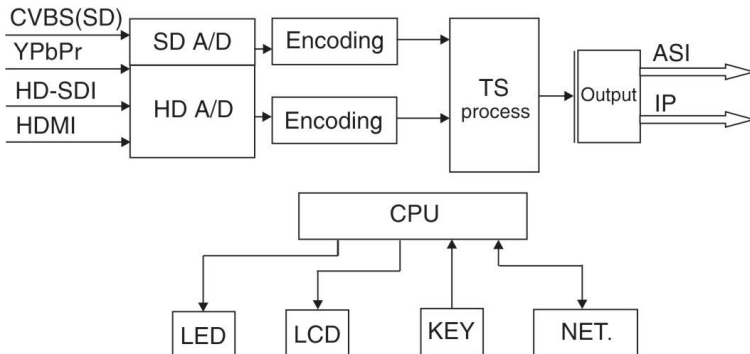


Figure 1.-

## 1.2 Specifications



### VIDEO PORT FEATURE

#### CVBS Signal

|               |                                 |
|---------------|---------------------------------|
| Video format  | NTSC/PAL                        |
| Connector     | BNC                             |
| Impedance     | 75 $\Omega$ , unbalanced        |
| Frequency     | 25 Hz $\pm$ 5.75 MHz            |
| Output level  | 1.0 Vpp                         |
| Quantitate    | 8 bits, compliant with CCIR-601 |
| Sampling rate | 27 MHz                          |

### HD SDI SIGNAL (not implemented)

|           |                          |
|-----------|--------------------------|
| Connector | BNC                      |
| Impedance | 75 $\Omega$ , unbalanced |

### YPbPr SIGNAL

|           |                          |
|-----------|--------------------------|
| Connector | BNC                      |
| Impedance | 75 $\Omega$ , unbalanced |

### HDMI SIGNAL (High Definition Multimedia Interface)

#### DATA OUTPUT PORT

##### DVB ASI output port

|               |             |
|---------------|-------------|
| Feature       | DVB ASI     |
| Connector     | BNC         |
| Impedance     | 75 $\Omega$ |
| Packet format | 188 Byte    |
| Data rate     | 1-20 Mbps   |

#### ETHERNET IP DATA OUTPUT PORT

|           |                          |
|-----------|--------------------------|
| Connector | RJ-45<br>10/100M Base TX |
|-----------|--------------------------|

#### NMS PORT ETHERNET REMOTE

|                |                                |
|----------------|--------------------------------|
| Ethernet port: | IEEE802.3 Ethernet, RJ-45 port |
| Protocol       | UDP/IP                         |

**POWER FAILURE AUTO SAVE** Automatically save of all information if the power failed.

#### POWER SUPPLY

|           |                |
|-----------|----------------|
| Voltage   | 100 ~ 240 V AC |
| Frequency | 50 Hz / 60 Hz  |
| Power     | 0.9 A          |



## ENVIRONMENTAL CONDITIONS

This equipment can be used on the following environmental conditions. The above mentioned specifications will apply in these conditions only:

|                               |   |
|-------------------------------|---|
| <b>Altitude</b>               | Up to 2000 m  |
| <b>Temperature range</b>      | From 5 °C to 40 °C  |
| <b>Max. relative humidity</b> | 80 % (up to 31°C),<br>decreasing lineally up to 50 % at 40 °C |

## MECHANICAL FEATURES

|                   |                                    |
|-------------------|------------------------------------|
| <b>Dimensions</b> | W. 483 mm x H. 44.5 mm x D. 410 mm |
| <b>Weight</b>     | 4.5 kg                             |

## INCLUDED ACCESSORIES

|               |  |
|---------------|--|
| <b>CA-005</b> | European power cord GEE7<br>Cable BNC/RCA<br>Cable BNC/BNC |
|---------------|--|

## OPTIONAL ACCESSORIES

|                    |  |
|--------------------|--|
| <b>PC software</b> | Downloadable from <a href="http://www.promaxelectronics.com">www.promaxelectronics.com</a> |
|--------------------|--|

## RECOMMENDATIONS ABOUT THE PACKING

It is recommended to keep all the packing material in order to return the equipment, if necessary, to the Technical Service.

















## 2 SAFETY RULES

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### 2.1 General

- \* **The safety could not be assured if the instructions for use are not closely followed.**
- \* Use this equipment connected only to systems with their negative of measurement connected to ground potential.
- \* This is a **Class I** equipment, for safety reasons plug it to a supply line with the corresponding **ground terminal**.
- \* This equipment can be used in **Overvoltage Category II** installations and **Pollution Degree 1** environments.
- \* When using some of the following accessories **use only the specified ones** to ensure safety.
  - Power cord.
- \* Observe all **specified ratings** both of supply and measurement.
- \* Remember that voltages higher than **70 V DC** or **33 V AC rms** are dangerous.
- \* Use this instrument under the specified environmental conditions.
- \* **The user is only authorized** to carry out the following maintenance operations:  
Replace the fuses of the **specified type and value**.  
On the Maintenance paragraph the proper instructions are given.  
Any other change on the equipment should be carried out by qualified personnel.
- \* **The negative of signal** is at ground potential.
- \* **Do not obstruct the ventilation system** of the instrument.
- \* Use for the signal inputs/outputs, specially when working with high levels, appropriate low radiation cables.
- \* Follow the **cleaning instructions** described in the Maintenance paragraph.

\* Symbols related with safety:

|   |                        |   |  |
|---|------------------------|---|--|
|  | DIRECT CURRENT         |  | ON (Supply)                                |
|  | ALTERNATING CURRENT    |  | OFF (Supply)                               |
|  | DIRECT AND ALTERNATING |  | DOUBLE INSULATION<br>(Class II protection) |
|  | GROUND TERMINAL        |  | CAUTION<br>(Risk of electric shock)        |
|  | PROTECTIVE CONDUCTOR   |  | CAUTION REFER TO MANUAL                    |
|  | FRAME TERMINAL         |  | FUSE                                       |
|  | EQUIPOTENTIALITY       |  | EQUIPMENT OR COMPONENT<br>TO BE RECYCLED   |

## 2.2 Descriptive Examples of Over-Voltage Categories

- Cat I** Low voltage installations isolated from the mains.
- Cat II** Portable domestic installations.
- Cat III** Fixed domestic installations.
- Cat IV** Industrial installations.

## 3 EQUIPMENT CONNECTION

### 3.1 Front panel picture

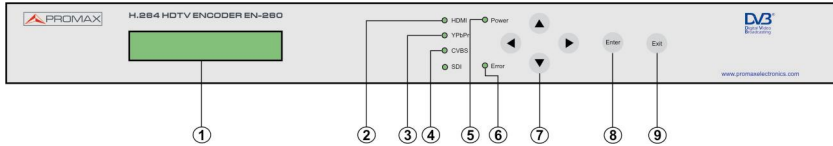


Figure 2.-

- 1- LCD
- 2- HDMI
- 3- YpbPr
- 4- CVBS
- 5- POWER
- 6- ERROR
- 7- KEYBOARD: LEFT, RIGHT, UP, DOWN
- 8- ENTER
- 9- EXIT

### 3.2 Rear panel

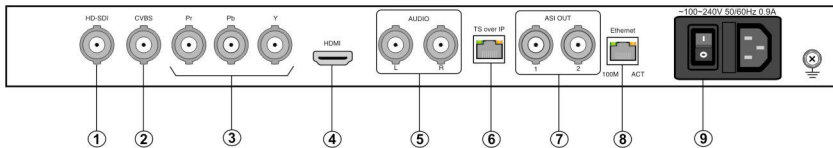


Figure 3.-



- 1- HD-SDI (not implemented)
- 2- CVBS
- 3- YPbPr
- 4- HDMI
- 5- AUDIO
- 6- IP DATA (RJ-45), TS ov IP
- 7- ASI OUT
- 8- Ethernet (RJ-45), NMS
- 9- Power switch

## 4 OPERATION

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### 4.1 KEY BUTTON

  **LEFT, RIGHT:** Move cursor.

  **UP, DOWN:** Edit parameter.

 **ENTER:** Confirm.

 **EXIT:** Exit or cancel setting.

#### NOTE:

- A** Press **ENTER**  , then **EXIT**  into menu list.
- B** Keyboard auto return to idle status after 60 seconds.
- C** In idle, press “down” to see device’s control IP address.



## 5 ERROR INFORMATION

---

### 5.1 INDICATOR STATUS

LED Indicators work as below:

|         |                                     |
|---------|-------------------------------------|
| "POWER" | green means power supply normal;    |
| "ERROR" | red, means device working abnormal; |
| "CVBS"  | green, CVBS signal is locked;       |
| "SDI"   | green, SDI signal is locked;        |
| "YPbPr" | green, YPbPr signal is locked;      |
| "HDMI"  | green, HDMI signal is locked.       |

### 5.2 TROUBLE SHOOTING

|                 |  |
|-----------------|--|
| "POWER"         | INDICATOR OFF. Check power cable, plug and switch.   |
| "ERROR"         | LED is red. Device working abnormal. please check the device error info in the menu. If "unlock" alarm display, means video signal input abnormal. Please check video input signal source and cable. |
| "NMS OPERATION" | Network management software can set and control all the encoder parameters from PC in local network or internet. More information, please read NMS user manual.                                      |



## 6 MAINTENANCE

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### 6.1 Mains fuse replacement

The fuseholder is located at the back panel of the equipment.

Before replacing the fuse disconnect the mains cord.

Take out the fuse holder with a screwdriver. Replace the fuse damaged by a suitable new one and place afresh the fuseholder.

**Fuse 5 x 20 (2 A) (250 V)**

**CAUTION**

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**BREACH OF THESE INSTRUCTIONS COULD DAMAGE THE EQUIPMENT**

### 6.2 Cleaning Recommendations

**CAUTION**

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To clean the cover, take care the instrument is disconnected.

**CAUTION**

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Do not use scented hydrocarbons or chlorized solvents. Such products may attack the materials used in the construction of the cover.

The cover should be cleaned by means of a light solution of detergent and water applied with a soft cloth.

Dry thoroughly before using the system again.

**CAUTION**

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Do not use for the cleaning of the front panel, alcohol or its derivatives. These products can attack the mechanical properties of the materials and diminish their useful time of life.







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