DIGITAL SATELLITE RECEIVER





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Please read this User's Manual carefully before installing this Receiver



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SAFETY WARNING

Warning

Please read the following recommended instructions carefully to avoid the risk of your physical Injury before the product is operated.

Safety Instructions and Precautions

- Do not cover the receiver and keep clear space around the receiver for sufficient air circulation.
- Check the receiver's operation voltage 90~250V, 50Hz~60Hz, Max 30W Keep liquid away from the receiver.
- The receiver shall not be exposed to dripping or splashing and no objects that filled with liquid shall not be placed on the receiver.
- Unplug the receiver from the wall outlet before cleaning.
- Use a soft cloth and a mild solution of washing-up liquid to clean the casing.
- Do not block the receiver's ventilation slots which are provided for ventilation and protection from overheating.
- Please maintain the receiver in a free airflow.
- Do not allow the receiver to be exposed to hot, cold or humid condition.
- Do not use any cable and attachment that are not recommended as these may damage your equipment.
- Please unplug the receiver from the wall outlet and disconnect the cable between the receiver and the antenna when you will not use it for long time.
- Do not remove the cover to reduce the risk of electric shock.
- Do not attempt to service the receiver yourself.
- Refer all serving to qualified service personnel.
- The manual's contents may be updated without notice.

NOTE: To disconnect the apparatus from the mains, the plug must be pulled out from the mains socket, therefore the mains plug shall be readily operable.

GENERAL INFORMATION

Package Contents & Features

Package Contents

Please ensure that the following items are included with the receiver in your packing.



Features

- Home streaming
- Live IP Movie/Radio
- 2 x USB 2.0 Hosts (Access to HDD, USB memory, Others etc)
- Wi-Fi Ready (Optional)
- Universal Remote
- Built-In Ethernet Port
- MP3 File Play by USB 2.0
- PVR Ready via USB
- Recorded file play on PC
- Reservation Recording by EPG function
- MPEG-II Digital & Fully DVB Compliant
- C/KU band control for each antenna
- LNB Tone Switch 22KHz mode ON/OFF
- Multi-LNB controlled by DiSeqC =>DiSEqC 1.0, 1.1, 1.2 and USALS
- Total 8,000 Channels Programmable
- Blind Scan
- Dolby Digital
- Picture In Graphic (PIG)
- Electronic Program Guide (EPG) for On Screen Channel Information
- Multi-language supported for Menu and OSD
- Zoom Function by 2x....4x
- Parental Lock
- Closed Caption Support
- CVBS Video & Audio Output via RCA
- Component YUV Output via RCA
- 7-Segment (4-digit) Type of Front Panel Display
- Upgrade Software & Update Channel Database through USB 2.0 Port

GENERAL INFORMATION

Front Panel

GENERAL INFORMATION

Rear Panel



1. POWER Button

Switch the receiver power On and Standby mode. **1. USB Port**

To upgrade firmware / Recording.

NOTE: The front panel of the product is subject to change without notice.



1. LNB IN Connect to Satellite antenna cable. 2. LNB OUT Connect to another STB. **3. DIGITAL AUDIO** Output for connecting to a digital amplifier. 4. AUDIO-R Connect to AUDIO RIGHT to TV or other equipment. 5. VIDEO Connect VIDEO to the TV or other equipment. 6. AUDIO-L Connect to AUDIO LEFT to TV or other equipment. 7. YUV (Component Video) Connect to the YUV jack of TV. 8. DIGITAL AUDIO / DOLBY DIGITAL Output for connecting to a digital amplifier.

9. ETHERNET Connect to Lan cable. (RJ-45) 10. USB PORT To Upgrade Firmware / Recording / Wifi connection. 11. RS 232 Connect to personal computer for software upgrade. 12. POWER SUPPLY 90~250V AC, 50/60Hz, 30W. 13. POWER BUTTON Turn On/Off.

NOTE: The rear panel of the product is subject to change without notice.

GENERAL INFORMATION

Remote Control Unit (RCU)



GENERAL INFORMATION

Remote Control Unit (RCU)

21. MENU 1. POWER Switch the receiver between operation and standby mode. Display the main menu on screen. 2. MUTE 22. EXIT Enable or disable the audio. Return to the previous menu or normal viewing mode 3. TV from a menu. 23. INFO Switch to TV mode. 4. DVD Display the program information box on the screen and Switch to DVD mode. edit the name of favorite channel list. 5. VCR 24. STOP Switch to VCR mode. Stop recording or playing. 6. STB 25. PLAY Switch to STB mode. Display file lists and plays slow/normal. 26. PAUSE 7. TV / RADIO Switch between TV and Radio. Pause the playing picture or go to normal mode. 8. DISPLAY 27. RECORD Switch between TV and Radio. Record the program. 9. AV / TV 28. REWIND Select the TV or AV mode. Start reverse playback and change the speed of reverse 10. ←PR playback. Select the previously viewed channel. 29.F/F 11. Fn Start fast forward or fast motion playback and change the Network File Manager / Reboot. speed of forward playback. 30. AUDIO 12. PAL / NTSC Change the audio languages. Switch PAL or NTSC mode. 13. RF CH 31. EPG (Electronic Program Guide) Select the RF channel. Display the TV or Radio program guide. 14. SLEEP TIMER 32. **Հ**⊧ Select the sound mode(LEFT/RIGHT/STEREO). Shut off the power after a preset amount of time. 33. 🗖 15. 🗶 Move down a page in the channel list. Enable subtitle and teletext mode. 16. 🔺 34. Numeric buttons Move up a page in the channel list. Select the TV or Radio service channels and individual 17. V+ / Vmenu. 35. FAV Turn volume up or down. Toggle the selected favorite mode. 18. P+ / P-36. SAT Change channels up or down on normal mode. 19. Toggle the selected Satellite list. Change channel or move to the item in the menu. 20, 4 🕨 Adjust the volume or move to left or move item in the menu.

GENERAL INFORMATION

Programing the Remote Control

GENERAL INFORMATION Programing the Remote Control

Programing the RCU

I. Manual Search

At first, Turn on the TV

- 1) Press **①Device LED Key (STB or TV or VCR or DVD) + ②"OK" key** at the same time during 2 or 3 seconds. Then the Device LED Lamp will be on → Setting Mode.
- 2) Find the 3–Digit code of Device in brand list and input 3–Digit code accordingly one by one. The Device LED will be twinked ontime one by one also. When you finish inputting 3–Digit, the Device (TV or VCR or DVD) will be turned off one time.

3) Then click OK to finish setting. (The Device LED will be turned off after twinkling 2 times.)

*NOTE : If you are not able to find the TV code which you are watching currently, please perform the below "Auto Search". Then RCU will find the proper code automatically and it will work properly.

II. Auto Search (Using Up or Down key)

- 1) Press **①Device LED Key (STB or TV or VCR or DVD) + ②"OK" key** at the same time during 2 or 3 seconds. Then the Device LED Lamp will be on → Setting Mode.
- 2) Press **OUp or Down Key** of RCU to find out equivalent device. At the moment of RCU matching to the equivalent device, the device will be turned off.

3) Then click OK to finish setting. (The Device LED will be turned off after twinkling 2 times.)

III. Factory Reset

1) Press (ITV LED + SREC button at the same time during more than 5 seconds.

2) Device LED will be turn off/on "TV → DVD → VCR → STB" 3 times one by one and RCU will go to default mode.



INSTALLING EQUIPMENTS

Connections

This section explains several ways of connecting the receiver to your existing TV, VCR and Hi–Fi system. You can choose one of the following setups that we recommend. If you have any problem or need help, consult your dealer or service provider. Please ensure that the following items are included with the receiver in your packaging.

Connecting the receiver to TV with Composite cable

Connect one end of the Composite cable to the Audio-R (Red), the Audio-L (White) and the Video (Yellow) socket on the rear panel of the receiver and the other end to the Audio-R (Red), the Audio-L (White) and the video (Yellow) socket on the TV.



Connecting the receiver to TV with Component cable

Connect one end of the component cable to the Audio-R (Red), the Audio-L (White) and the YUV socket on the rear panel of the receiver and the other end to the Audio-R (Red), the Audio-L (White) and the YUV socket on the TV.



CHANNEL LIST GUIDE

Channel List Guide

CHANNEL LIST GUIDE

1. Normal Live Mode

- a) When you select one channel, information bar appears automatically on the screen for few seconds. This bar provides you the current channel information.
- b) Press INFO button to see the information during normal live mode.

2. Simple Channel List

- a) Press OK on the normal live mode to go to the channel list.
- b) When detail channel list is displayed on screen press RED button to go to simple channel list.

3. Detail Channel List

- a) Press OK on the normal live mode to go to the channel list.
- b) When simple channel list is displayed on screen press [RED] key to go to detail channel list.
- c) Press $\blacktriangleleft \triangleright$ and $\blacktriangle \triangledown$ to sort by Alphabet.
- d) Press SAT button to sort by Satellite and FAV button for Favorite 1~8.
- e) Press GREEN button to return to All Channel or EXIT to return to the current live channel.
- f) Press the SAT key to show Satellite Pop–UP Window then select satellite. Channel list of selected satellite will be displayed.
- g) Press the FAV key to show Favorite Pop-UP Window then select FAV list. Channel list of selected FAV will be displayed.
- h) Press the Green key then all searched channel list will be displayed.
- i) Press MENU key then cursor will move to ALL, placed on the left.
- j) Sort Key (Yellow Key)~A~Z/Z~A/FAT/CAS.
- k) Press Yellow key for sorting A~Z/Z~A/FAT/CAS. If you want to go back to unsort from the selected CAS go back to Pop–UP Window then select unsort.







CHANNEL LIST GUIDE

Channel List Guide

4. EPG (Electronic Program Guide)

a) Press EPG button on the live mode.

b) EPG of the current channel appears on the screen.

- c) Select the channel that you want to watch program.
- d) Red Circle will appear like the right side picture.
- e) To activate event timer, press REC button twice.
- f) Green Circle will appear.
- g) If you like to cancel reserved program, press REC button until Red or Green Circle disappears.
- h) Press OK button twice to return to current live channel.
- i) Also, you can find the EPG information using FN button.

FN button: Search by Title, Summary or Both. This is the fastest way to search for a particular channel you want to watch.

5. ZOOM IN/OUT

- a) By selecting page up key (★) in a normal live mode you can use Zoom In/Out function.
- b) From the Pop–Up Window of Zoom function you can select (*2*3*4) by page up key(★), for Zoom out press page down key.
- c) When you move cursor of Zoom focus by key (▲ ▼ ◀ ►) then you can select Zoom In/Out on the focused point by pressing page up/down keys. Press Pause key then live mode will be paused on the mode of Zoom.



MENU GUIDE

I. Channel Manager

MAIN PAGE

Press the [MENU] key on the RCU to open Main Page on the screen. Main Page will be displayed.

- 1. You can move into the main page using ▲▼◀ ▶ on the RCU.
- 2. Press [OK] to confirm your selection.
- 3. Press [EXIT] to return to the previous menu or press [MENU] to go to the current live channel.



I. CHANNEL MANAGER

This chapter explains how to organize channels according to your preference.

- 1. Select Channel Manager in the Main Page with ▲ ▼ and press OK.
- 2. TV Channel Manager Page displays on the screen.
- 3. Select the mode that you want to use < >.
- 4. To see the channel that you choose, go to the channel and then press RED button.
- 5. Press EXIT to return to the previous menu or press MENU to go to the current live channel.
 - I-1. Favorite
 - I-2. Rename
 - I-3. Move
 - I-4. Lock
 - I-5. Delete

I-1. Favorite

- 1. Using ◀ ▶ go to the Favorite mode then press YELLOW button to choose Favorite 1~8.
- 2. Press OK on the channel that you want to add or delete.
- 3. 🕸 will be marked at the end of selected channel name bar. To delete press OK again.
- 4. Selected channels will be automatically saved.
- 5. If you want to check the saved Favorite Channel List go to other mode (Rename~Delete) except Favorite and then press FAV button to check Favorite 1~8.
- 6. Press EXIT to return to the previous menu or press MENU to go to the current live channel.



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I. Channel Manager

I-2. Rename

- 1. Using ◀ ▶ go to the Rename mode.
- Select the channel that you want to rename using ▲▼ and then press OK.
- 3. Keypad Dialog displays on the screen.
- 4. Edit the name entering NUMBERS and / or WORDS in the Keypad Dialog.
- 5. Press YELLOW button to rename Favorite 1~8 and press BLUE button to rename Satellite.
- 6. Press EXIT to return to the previous menu or press MENU to go to the current live channel.

I-3. Move

- 1. Using \blacktriangleleft \triangleright go to the Move mode.
- 2. Select channels which you want to move by pressing OK key.
- 3. Move cursor that you want to place on than press GREEN button.
- 4. Press EXIT to return to the previous menu or press MENU to go to the current live channel.

I-4. Lock

- 1. Using \blacktriangleleft \triangleright go to the Lock mode.
- Select the channel that you want to lock and then press OK.
 OK. If will be marked at the end of the selected channel name bar. To delete press OK again.
- 3. Press EXIT to go to Main Page or press MENU to go to the current live channel.

I-5. Delete

- 1. Using \blacktriangleleft \triangleright go to the Delete mode.
- 2. Select the channel that you want to delete and then press OK. 圖 will be marked on the selected channel number. To delete press Blue button again.
- 3. Press YELLOW button to delete TP. Select one channel and press Blue button. All channels of that TP will be automatically selected.
- Press YELLOW button to delete Satellite. Select one channel and press Blue button. All channels of that the Satellite will be automatically selected.
- 5. Press EXIT to return to the previous menu or press MENU to go to the current live channel.
- 6. Message Box displays on the screen.
- 7. Select OK on the Message Box and then press OK to delete the marked channels.









MENU GUIDE

II. Installation

II. INSTALLATION

This section may help you to set up antenna and scan satellite or transponder, etc. Select Installations in Main Page using ▲▼ and press OK.

Press EXIT to return to the previous menu or press MENU to go to the current live channel.

- II-1 Channel Search
- II-2. DiSEqC Switch
- II-3. Motor Setup
- II-4. Factory Default

II-1 Channel Search

1. You can move the cursor using ▲▼ and press OK when you select the value that you want.

a) Satellite

- Press OK to display the Satellite List Box.
- Select the proper Satellite and then press OK.
- b) DiSEqC
- Press OK to display the DiSEqC Port List.
- Select the proper DiSEqC port and then press OK. c) Frequency
- Press OK to display the Frequency List.

- Select the proper Frequency and then press OK. d) LNB

- Press OK to display the LNB Frequency List.
- Select the proper LNB Frequency and then press OK.
- You can also input directly the numbers using NUMBER KEY on the RCU.

e) 22KHz Tone

 Select the one among None, 0 KHz or 22 KHz depending on the user's antenna switch box.

f) Search Option

- Press OK to display the Search Option list.
- Select the Search Option that you want and then press OK.

g) Search

- Press Search to start scan channels.
- Selected Satellite displays on the screen.
- Press ► to select more Satellite or ◀ to cancel the selected Satellites.
- Press OK to start scanning.



Satellite Search		
Satellite	100.5"E Asiasat 2	••
DISEQC 1.0	Port A	
DISEQC 1.1	None	
TP Frequency	03660 27500 V	
LNB	6150	123
22KHz Tone	OFF	
Search Options	All Channel	
LNB Power	ON	
NB Power	ON	

Satellite Search		
Satellite	100.6'E Asiasat 2	
DISEQC 1.0	Port A	41
DISEqC 1.1	None	41
TP Frequency	03660 27500 V	41
LNB	5150	12
22KHz Tone	OFF	
Search Options	All Channel	
LNB Power	One TP	
	Search	
s 70	0% a	m 95%

* TP EDIT :

To Edit TP, Press the RED button on the RCU.

II. Installation

II-2. DiSEqC Switch

- 1. Select Channel Search in Installation using and press OK.
- a) If you select DiSEqC Switch and press OK on the menu, DiSEqC Switch Page will be displayed.
- b) Select the proper Satellite of each DiSEqC port using \blacktriangleleft and \blacktriangle and press SEARCH. Selected Satellites will be searched automatically.



II-3 Motor Setup

1. You can move the cursor using $\blacktriangle \lor$ and press OK when you select the value that you want.

a) Motor Type : DiSEqC 1.2, USAL

- Press OK to display Motor Type
- Select the proper Motor Type and then press OK.

b) Satellite

- Press OK to Display the Satellite List Box
- Select the proper Satellite and then press OK.

c) Switch & LNB

- Press OK to Display the LNB frequency list or Switch Setting
- Select proper LNB & proper Switch.

d) Frequency

- Press OK to Display the Frequency List.
- Select the proper Frequency and then press OK.

e) Motor Movement

- Search the appropriate position of the selected Satellite using $\blacktriangleleft \triangleright$.







MENU GUIDE

II. Installation

II-3 Motor Setup

f) Motor Control

Select the position using \blacktriangleleft > and then press OK. Message box displays on the screen.

- Store Sat position : Stores the current position of the motor for the selected satellite.
- Goto Sat Position : Moves the motor to the stored position of the selected satellite.
- Goto 0 : Goes to the center of the motor.
- Reset Position : Resets all stored position of the motor.

g) Satellite Position

- Input directly the position using NUMBER KEY on the RCU
- Select the direction using ◀ ► (WEST / EAST).

h) Search Option

- Press OK to display the Search Option list.
- Select the Search Option that you want and then press OK.

2. Edit my local position

- Press Green Button to edit local Position.

a) Longtitude

- Input directly the Longtitude using NUMBER KEY on the RCU.
- Select the direction using \blacktriangleleft \blacktriangleright (WEST / EAST).

3. Press EXIT to return to the previous menu or press MENU to go to the current live channel.

II-4 Factory Default

Use Factory Default function only when you want to return the receiver to the condition of factory default. All settings and channels will be deleted.

- a) Select Factory Default in Installations using $\blacktriangle \lor$ and press OK.
- b) Message box displays on the screen.
- b) Select OK to return the receiver to the condition of factory default and then press OK.
- b) Press EXIT to return to the previous menu or press MENU to go to the current live channel.



TP EDIT

To Edit TP Press the RED button on the RCU.

i) Search

- Press Search to start scan channels.
- Press OK to start scanning.

b) Latitude

- Input directly the Latitude using NUMBER KEY on the RCU.
- Select the direction using ▲▼ (NORTH / SOUTH).





III. Options

III. OPTIONS

This section may help you to set up OSD language, time, etc. Select Options in Main Page using $\blacktriangle \lor$ and press OK.

Press EXIT to return to the previous menu or press MENU to go to the current live channel.

III-1. OSD Setup

- III-2. Control Panel
- III-3. Time Adjust
- III-4. Parental Lock

III-1. OSD Setup

1. Select OSD Setup in Options using ▲▼ and press OK.

a) OSD Language

- Press OK to display OSD Language list.
- Select the language that you want and then press OK.

b) Audio Language

- Press OK to display Audio Language list.
- Select the language that you want and then press OK.

c) Display Info Bar

- Press OK to display Display Info Bar time list.
- Select the second that you want to display and then press OK.

d) OSD Position

- Press OK to change Horizontal and Vertical Position of the OSD.
- OSD Position box displays on the screen.
- Select Hor Position / Ver Position using $\blacktriangle \nabla$.
- Move the OSD Position to right/left or up/down using ◀ ▶.
- Select OK on the OSD Position box and then press OK.

e) Screen format

- Press OK to display screen format list.
- Select the format that you want and then press OK.

2. Press EXIT to return to the previous menu or press MENU to go to the current live channel.





MENU GUIDE

III. Options

III-2. Control Panel

1. Select TV Setup in Options using ▲▼ and press OK.

a) Video Output

- Press OK to display Video Output list.
- Select RGB if your SCART supports RGB control and then press OK.
- Select CVBS if your SCART does not support RGB control and the press OK.

b) TV Type

- Press OK to display TV Type list.
- Select the proper mode according to your TV type and press OK.

c) UHF Channel

- Press OK to display UHF Channel list.
- Select the proper channel and then press OK.
- d) UHF Standard
- Press OK to display UHF Standard list.
- Select the proper mode and then press OK.

2. Press EXIT to return to the previous menu or press MENU to go to the current live channel.

III-3. Time Adjust

Set your local time according to your location.

- 1. Select Time Setup in Options using \blacktriangleleft \blacktriangleright and press OK.
- 2. Time Adjust page displays on the screen.
- Move the cursor using ▶,▲ ▼and press OK when you select the value that you want. (Input Hour directly using number keys on the RCU)
- 4. Press EXIT to return to the previous menu or press MENU to go to the current live channel.

III-4. Parental Lock Setup

- 1. Select Parental Lock Setup in Options using ◀ ► and press OK.
- 2. Parental Lock Page displays on the screen.
- You can lock and unlock Parental Lock selecting ON or OFF using ▲▼ (For Channels).
- You can lock and unlock Install Lock selecting ON or OFF using ▲ ▼(For Installation Settings).
- 5. Enter new password if you want to change the current password.
- 6. Confirm your new password entering new password again.
- 7. Press EXIT to return to the previous menu or press MENU to go to the current live channel.



	Time Adjust	
Local Time	00:00	
Summer Time	OFF	
Year	2007	
Month	Jan	4 1
Day	1	4 1
Hour	00.31	123
London, Li	sbon, Dublin, Casablanc	

	Time Adjust	
Local Time	00.00	
Summer Time	OFF	
Year	2007	
Month	Jan	43
Day	4	41
Hour	12_	120
London 11	shop Dublin Casabland	



IV.Utility

IV. UTILITY

This section may help you to use USB, etc. Select Utility in Main Page using ▲▼ and press OK.

IV-1. System Information IV-2. USB



IV-1. System Information

This option help you to know the current S/W and H/W version. Also provides you the product name.

- 1. Select System Information in Options using $\blacktriangle \blacktriangledown$ and press OK.
- 2. Press EXIT to return to the previous menu.



Option

Gort

IV-2 USB

The receiver is equipped with host.

- 1. Select USB in Utility with $\blacktriangle \lor$ and press OK.
- 2. If you want to change mode (S/W Upgrade, BootLoader Upgrade), press RED button on the RCU.
- 3. Select the file which you want to upgrade using $\bigstar \blacktriangledown$ and press OK.
- 4. After downloading the selected file, the receiver will reboot automatically.

IV-3 Time Record

1. If you "ENABLE" option set to YES, you can edit TIME RECORD function.

TROUBLESHOOTING

Troubleshooting

Before contacting your local service center, please read the tips below carefully. If the problem persists after completing the following procedure, please contact your local retrailer for further instructions.

1. Nothing appears on the Front Panel or No power supply

- Check that the power cable is plugged into the power socket.

2. No Picture

- Check the dish and adjust it.
- Check the cable connection and correct it.
- Get out of UHF mode.
- Check channel and video output.

3. No Sound

- Check the volume level of the TV and receiver.
- Check the mute status of TV and receiver.
- Check the cable connection and correct.

4. Remote Control Unit does not work

- Replace batteries.
- Aim the remote control unit directly to the receiver.
- Checking that nothing blocks the front panel.
- Press STB once on RCU and try the remote again

5. "No Signal" on the screen

- Check the signal strength and the signal quality in the menu.
- Check the LNB and replace the LNB if neccessary.
- Check the LNB cable.
- Check the dish and adjust it.

6. Tuner detective check

- Go to the Option and select System Information.

7. You have forgotten your secret PIN code

- You have forgotten your secret PIN code, The Default Pincode is 0000 and the Master Pincode is 2580.

SPECIFICATIONS

Specifications

I. Tuner & Channel	
ltem	Specification
Туре	1 x F Type, IEC169–24, Female
Frequency Rage	950MHz to 2150MHz
RF Impedance	75 Ohm unbanlanced
Signal Level	-65 to -25 dBm
LNB Power	13.5/18.5Vdc +/- 5%, 0.5Amax, Overload Protected
22KHz Tone	Frequency : 22KHz +/- 2KHz, 0.6Vpp +/- 0.2V
DiSEqC Control	Version1.0, 1.1, 1.2, Tone burst A/B
Demodulation	QPSK
Input Symbol Rate	2~45 Ms/s, SCPC/MCPC
FEC Decoder	Convolution Code Rate 1/2, 2/3, 3/4, 5/6 and 7/8
	With Constraint Length $K = 7$

II. System & Memory		
ltem	Specification	
Main Processor	32-bit ARM946E RISC Processor	
Flash Memory	2 Mbytes	
System DRAM	32 Mbytes	
Channel Capacity	Digital Channel : 5000	
Front	5-Keys , 7-segment Display (4-digit)	

III. MPEG Transport Stream & A/V Decoding		
ltem	Specification	
Transport Stream	MPEG-2 ISO/IEC 13818 Transport Stream Specification	
Profile Level	MPEG-2 MP@ML	
Input Rate	Max. 90Mbit/s	
Aspect Ratio	4:3, 16:9, Letter Box	
Frame Rate	25Hz for PAL, 30Hz for NTSC	
Video Resolution	720 X 576(PAL) / 720 X 480(NTSC)	
Teletext	Through VBI	
Audio Decoding	MPEG/Musicam Layer I & II	
Audio Mode	Single Channel/Dual Channel Joint Stereo/Stereo	
Frequency Response	20~20kHz, <+/-2dB	
	60Hz~18KHz <+/- 0.5dB	
Sampling Rate	32, 44.1, 48KHz	

SPECIFICATIONS

Specifications

IV. A/V & Date In/Ou	t
ltem	Specification
RCA Output	CVBS, L, R Output(Yellow, White, Red Jack) with Volume Control
	Component Video(YUV) Out
SPDIF	Dolby Digital Bitstream Out (Optical)
Data Interface	RS-232, Bit Rate: 115,200baud
	Connector: 9-pin D-sub Male type
	– USB : Type A Connector
	- Ethernet : 10/100Mbps, DHCP Supporting

VI. Power Supply		
ltem	Specification	
Input Voltage	AC 90V ~ 250V, 50Hz ~ 60Hz	
Power Consumption	Max 30W	
Standby Power Consumption	<= 10W	
Protection	Separate Internal Fuse The input shall the lighting protection	

VII. Physical Specification		
ltem	Specification	
Size(WxHxD)	230mm x 40mm x162mm	
Weight	1.4 KG	

VIII. Environmental Condition		
ltem	Specification	
Operating Temperature	0 °C ~ 40 °C	
Storage Temperature	–10 °C ~ 50 °C	
Operating Humidity Range	10~85% RH, Non-condensing	
Storage Humidity Range	5~90% RH, Non-condensing	

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