



USER MANUAL

RDT-100



DVB T2

H.264
MPEG-4 AVC

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

Important Safety Instructions

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 8) Operate this product only from the type of power source indicated on the label. If you are not sure of the type of power connected to your home, consult your local power company. Disconnect the unit from the mains before any maintenance or installation procedure.
- 9) Protect the mains cord from damage and stress.
- 10) Only use attachments/accessories specified by the manufacturer.
- 11) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 12) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, including damage to the mains cord or plug, if the unit has been exposed to liquid or moisture, has been dropped or is not operating correctly.
- 13) Do not impede the air flow into the unit by blocking the ventilation slots.
- 14) Attention should be drawn to the environmental aspects of battery disposal.
- 15) Use the apparatus in moderate climate.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

WARNING: The batteries shall not be exposed to excessive heat such as direct sun light, fire, etc.



Warning:

- The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable
- The batteries shall not be exposed to excessive heat such as sunshine, fire or the like.



This symbol indicates that dangerous voltages constituting a risk of electric shock are present within this unit.



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

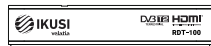


This symbol indicates that this product incorporates double insulation between hazardous mains voltage and user accessible parts. When servicing use only identical replacement parts.

Package Contents

Before installation, please check the contents of the package. The package should contain the following items:

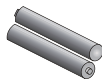
- | | |
|--------------------------------------|---------|
| ① DVB-T2 TV Receiver | x1 pc |
| ② Remote Control | x1 pc |
| ③ AAA Battery for the Remote Control | x1 pair |
| ④ User Manual | x1 pc |



DVB-T2 TV Receiver



Remote Control



AAA Battery



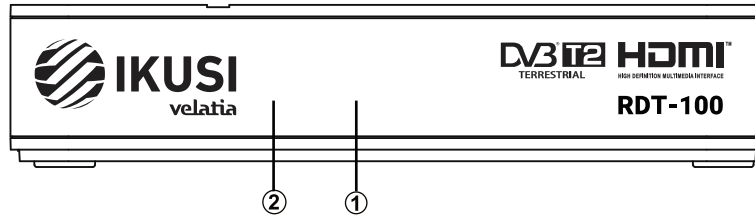
User Manual

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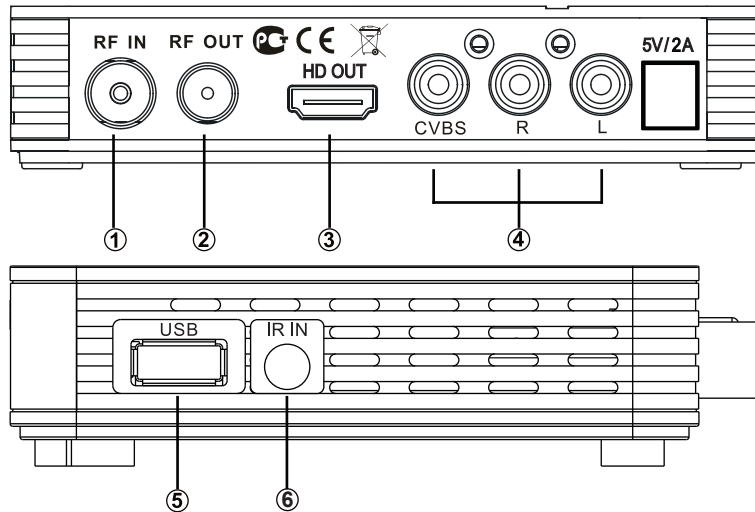
Front and Rear Panel

1. Front panel



- ① **LED DISPLAY SCREEN^(*)**: Used to display channel number or time.
- ② **REMOTE CONTROL SENSOR**: Used to receive the signal from the Remote Control.

2. Rear panel



- ① **RF IN**: This socket connects to your external Aerial.
- ② **RF OUT**: This socket will feed the RF signal to either your TV or another video system.
- ③ **HD OUT**: High definition audio and video output used to connect to a HDMI device
- ④ **AV OUT PUT**: Outputs for connecting with TV.
- ⑤ **USB**: For software upgrade and media playback.
- ⑥ **IR IN**:

Remote Control



POWER: Switch the receiver in and out of Standby mode.

<0>-<9>: Numeric keys.

CH-/CH+: Program changing keys.

MENU: Display main menu on TV screen, and press again to disappear menu.

OK: To confirm current setting, or display channel list in no-menu mode.

VOL-/ VOL+: To increase / decrease volume.

RECALL: Press to move the cursor

EPG: Shows the Electronic Program Guide.

FAV: Displays your favorite channels list.

Press FAV again to access to the other favorite lists.

V-FORMAT: Switch the HDMI 720P and 1080i.

RECALL: Go back to the previous viewed channel.

Red/green/yellow /blue: Use to navigate between pages in teletext mode and special functions in Menu or EPG

TTX: Switch on Teletext, if current channel has this option, and use EXIT key to quit Teletext.

SUB-T: Display subtitle options (availability depends on the channel).
Left/Right channel (availability depends on the channel).

EXIT: Use this key to quit current menu.

INFO: Display information about the current channel.

TV/RADIO: Switch between Digital Radio and DVB-T modes.

MUTE: To switch on/off volume.

PAGE+/PAGE -: To navigate inside the menus.

ASPECT: Switch 4:3/16:9.

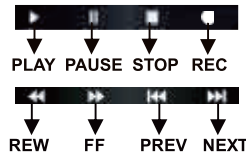
Use after RECORD button for timeshift

TIMER: Use to access ON/OFF timer directly

PVR: Use to access recorded content in USB drive

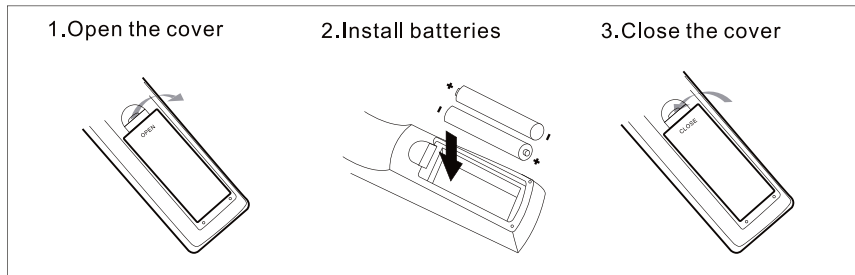
REPEAT: Repeat play multimedia file.

Multimedia keys:



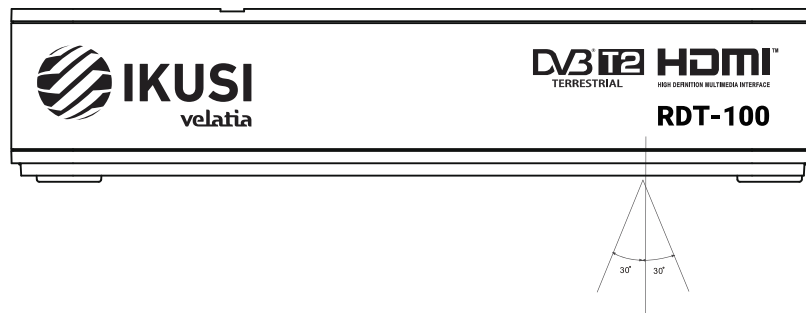
Installing the Batteries

Remove the battery cover from the rear of the Remote Control and place 2xAAA size batteries inside the compartment. Please make sure the battery polarities match the polarity markings inside the compartment.



Using the Remote Control

To use the Remote Control, point it towards the front of the Digital Set Top Box. The Remote Control has a range of up to 7 metres from the Set Top Box at an angle of up to 60 degrees.



The Remote Control will not operate if its path is blocked.

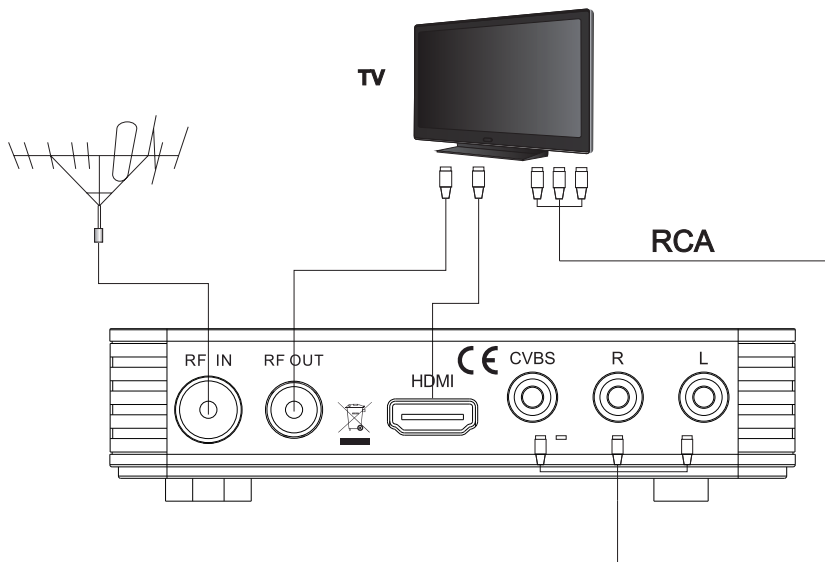


Sunlight or very bright light will decrease the sensitivity of the Remote Control.



System connection

For a basic connection from your Set Top Box to your television set, you can use SCART connection. For a higher quality connection, use a direct HDMI connection, as shown below. Connect a audio amplifier use coaxial is a optional.



First Time Installation

After all connections have been made properly, switch on TV and make sure the unit is connected to the Main Power. Press Power button to switch the unit on. If you are using the unit for the first time or have restored the unit to Factory Default, the Installation Guide Menu will appear on your TV screen.



- (1) [OSD Language] press RIGHT/LEFT key to select a language.
- (2) [Country] press RIGHT/LEFT key to select your country of residence.
- (3) [Channel Search] press RIGHT or OK key to begin Automatic channel search.
- (4) Once channel tuning is complete, you can start watching TV programs.

Basic Operation

(1). Program Manage Settings

To access the Menu, press the MENU button and select [Program]. using the RIGHT/LEFT keys to navigate through the menu. The Menu provides options to adjust the Program Manage Settings. Select an option and press OK or RIGHT to adjust that setting. Press the EXIT button to exit the Menu.



(a) Program Edit

To edit your program preferences (lock, skip, favourite, move or delete), you will need to enter the Program Edit Menu. This Menu requires a password to access. Enter the default password '000000'. The master unlock password is '888888'.



Set Favourite Channels

You can create a shortlist of favourite programs that you can easily access. Set Favourite TV or Radio program:

1. Select your desired channel then press the FAVOURITE button.
A heart-shaped symbol will appear and the channel is marked as a favourite.
2. Repeat the previous step to select more Favourite channels.
3. To confirm and exit the Menu, press the EXIT key.

Disable Favourite TV or Radio Channel:

Select the Favorite channel and press Favorite button on the remote control to cancel.

View Favourite Channel

1. While in normal viewing mode, press Favourite button and the Favourite Menu will appear.
2. Press UP/DOWN to browse through your Favourite Channels.
3. Press OK to select your favourite channel.

Delete a TV or Radio Program

1. Select the Program and then press the BLUE button.
A warning message will appear. Press OK to delete the channel.
2. Repeat the previous step to select more channels to delete.

Skip TV or Radio Channel

1. Select the channel you would like to skip and press the GREEN button.
A skip symbol is displayed. The channel is marked as a skip.
2. Repeat the previous step to skip more channels.
3. To save your settings and exit the menu, press EXIT key.

Disable the Skip Channel function:

Select the Skip channel and press the GREEN button on the remote control to cancel.

Move a TV or Radio Program

1. Select the preferred channel then press the RED button. A move symbol will appear.
2. Press UP/DOWN to move the channel.
3. Press OK to confirm.
4. Repeat the above steps to move more channels.

Lock Program

You can lock selected programs for restricted viewing
Lock a TV or Radio channel

1. Select the preferred channel then press the YELLOW button. A lock-shaped symbol is displayed. The channel is now marked as locked.
2. Repeat the previous step to select more channels.
3. To confirm your settings and exit the menu, press the EXIT button.
4. Press the YELLOW button to disable the locked channels function.
5. To view the locked channels, you will be required to enter either the default password '000000' or your last set password. The master unlock password is '888888'.

(b) EPG (Electronic program guide)

The EPG is an on-screen TV guide that shows scheduled programs seven days in advance for every tuned channel. Press the EPG button on the Remote Control to access the guide.



You can use the UP/DOWN key to select the preferred program. If there is more than one page of information, use the BLUE button for page up and the YELLOW button for page down.

You can select another channel's EPG by LEFT/RIGHT buttons, view details of each EPG event by INFO button or schedule a recording by OK button. (Please see page 13 of this manual for details in recording option)

(c) Sort

Sort your channels from the following options:

[By LCN] - Sort the channels in ascending order.

[By Service Name] - Sort the channels in alphabetical order.

[By Service ID] - Sort the channels according to the station.

[By ONID] - Sort the channels according to ONID.

(d) LCN (Logical channel number)

Set LCN on or off if you want to sort the channels manually.

(2). Picture Setting

To access the Menu, press MENU then select [Picture] using the RIGHT/LEFT key. The Menu provides options to adjust the video settings. Press UP/DOWN to select an option and press RIGHT/LEFT to adjust that setting. Press EXIT to exit the menu.



(a) Resolution

You can change this setting if the picture resolution does not appear to be correct. This setting is to match the most common setting for HDMI.

[480i/480p]: for NTSC TV system.

[576i/576p]: for PAL TV system.

[720p/1080i/1080p]: for NTSC or PAL TV system.

(b) TV Format

If the picture does not appear to be correct you can change this setting.

This should match the most common setting for TVs in your country.

[NTSC]: for NTSC system TV.

[PAL]: for PAL system TV.

(3). Channel Search

To access the menu, press MENU and select [Search Channel] using the RIGHT/LEFT keys.

This Menu provides options to adjust the Search Channel settings.

Press UP/DOWN to select an option and press RIGHT/LEFT to adjust the settings.

Press EXIT to exit the Menu



(a) Auto Search

This option will automatically search for channels and save them once the scanning is complete. All previously saved channels and settings will be deleted.

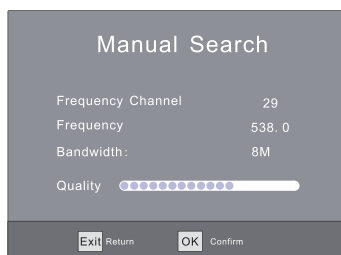
1. Select [Auto Search] and press OK or RIGHT to start channel search.
2. To cancel channel search, press EXIT. Any channels that have been found will be saved.



(b) Manual Search

This option allows you to scan for new channels without deleting previously saved channels and settings.

1. Select [Manual Search] then press OK or RIGHT. The channel search screen will appear.



2. Press the RIGHT/LEFT key to select the channel frequency.
 3. Press OK to start searching channels.
- If a channel is found, it is saved and added to the channels list. If channels can not be found during searching, the unit will exit automatically.

(c) Country

Select your country of residence.

(d) Antenna Power

Enable Antenna Power if an external active antenna is connected.

(4). Time Setting

To access the Menu, press MENU then select [Time] using the RIGHT/LEFT keys. The Menu provides options to adjust the time settings.

Press UP/DOWN to select an option and press RIGHT/LEFT to adjust the settings. Press EXIT to exit the menu.



(a) Time offset

Select auto or manual for GMT offset adjustments.

(b) Country Region

Select the Country Region when [Time Offset] is set to Auto.

(c) Time Zone

Select the Time Zone Offset when [Time Offset] is set to Manual.

(d) Sleep

Select sleep time. The unit will enter standby mode after selected time.

(5). Option

To access the Menu, press MENU and select [Option] using the RIGHT/LEFT keys. The menu provides options to adjust the OSD Language, Subtitle Language and Audio Language.

Select an option and press RIGHT/LEFT to adjust the setting.

Press EXIT to exit the Menu



(a) OSD (On Screen Display) Language

Select an OSD language.

(b) Subtitle Language

Select the preferred subtitle language.

(c) Audio Language

Select the preferred audio language for watching TV channels.

If the language is not available, the default program language will be used.

(d) Digital Audio

If no sound from audio amplifier which connected to coaxial you can change this setting.

(6). System Setting

To access the Menu, press MENU and select [System] using the RIGHT/LEFT keys. The menu provides options to adjust the system settings.

Press the UP/DOWN key to select an option and press RIGHT/LEFT to adjust the setting. Press EXIT to exit the Menu .



(a) Parental Guidance:

Set the age for parental control.

(b) Set Password

Set or change the password for locked programs. Enter your old password or the default password '000000'. You will then be asked to enter your new password. Press OK button to confirm your new password.

Once it is confirmed, press EXIT to exit the Menu. The master unlock password is '888888'.

(c) Restore Factory Default

Reset your Set Top Box to the Default Factory Settings.
In Main Menu select [Restore Factory Default] using the RIGHT/LEFT keys and press OK or RIGHT to select. Enter your password or the default password '000000' and press OK to confirm. This option will delete all preset channels and settings. The master unlock password is '888888'

(d) Information

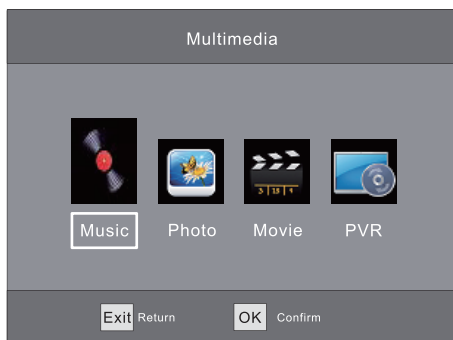
View model, hardware and software information.

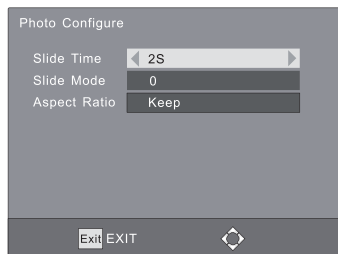
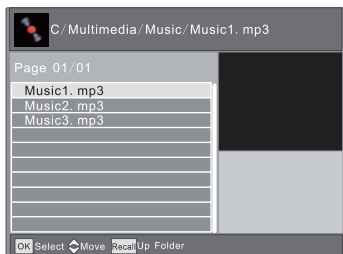
(7). USB

To access the Menu, press the **MENU** button and select [USB] using the RIGHT/LEFT keys. The menu provides options to playback Music, Photo and Multimedia files. It can support AVI, MP3, WMA, JPEG and BMP formats.



(a) Multimedia: When a USB device is attached you can select from the Music, Photo, Movie or PVR options in this menu using the RIGHT/LEFT keys and OK to select. If a USB device is not connected, the warning message "No USB device is Found" will appear.





(b) Photo configure:

- Slide Time:** adjust slide show interval to 1~8 seconds.
- Slide Mode:** adjust slide show effect as mode 0~59 or random.
- Aspect Ratio:**
 [Keep]: Play picture in its original aspect.
 [Discard]: Play picture in full screen mode.

(c) Movie Configure:

- Subtitle Specific:

Select the subtitle size. Available settings are Small, Normal and Big.

- Subtitle BG:

Select the subtitle background color. Available settings are Transparent, Gray, Yellowgreen and White.

- Subtitle Font Color:

Select the subtitle font color. Available settings are White, Black, Red, Blue and Green.

(d) USB PVR Configure:

- Record Device:

Displays information of the connected USB storage device.

- Format:

Formats the connected USB device. (ATTENTION IT WILL DELETE ALL FILES!)

The most unique feature of the STB is its ability to record live TV. There are two ways you can do this. The first is to simply connect a USB storage device to your STB and press the record button on the remote. The other way is to schedule a program to record using the blue button or from within the EPG menu.

To schedule a recording follow the below steps:

- Press the blue button on the remote.
- Press the red button to add a schedule.
- Adjust the settings according to the schedule of the event. (Start-End time, record/view, etc.)
- Press OK button
- Press EXIT button

Event Add	
Channel Type	TV
Channel No.	0001
Channel Name	SZTV01
Start Date (M/D/Y)	01/01/2000
Start Time	02:14
End Time	02:14
Repeat	Once
Mode	View

You will be able to select from the following two options:

- Mode:View or Record

If at anytime you wish to delete a Scheduled event,you can press the blue button to view the list of scheduled events. Use the arrow keys on the remote to highlight the event you wish to delete then press the blue button to delete it.

The recording files can be deleted on this unit, you can go to the PVR,and press yellow button to delete it. The TV program is recorded to file at .PVR format, which can be played back on this unit and PC using a suitable player, but can not be played back on DVD or PDVD

For recording high definition TV programs,the version (and speed) of usb device should be 2.0 or above, otherwise the unit may not record the hd programs correctly.

When recording to usb stick or external hard disc on this model, you have to wait a few seconds before pushing rec. after inserting the media. Otherwise the unit can freeze in the signal.If that happens, then please take off power and connect again to fix this.

Note:

- We cannot guarantee compatibility (operation and/or bus power) with all USB mass storage devices and assume no responsibility for any loss of data that may occur when connected to this unit.
- With large amounts of data, it may take longer for the system to read the contents of a USB device.
- Some USB devices may not be properly recognised.
- Even when they are in a supported format, some files may not play or display depending on the content.
- Please use external AC-DC power adapter if the USB device current consumption larger than 500mA.

(e) Timeshift



Press [Timeshift/Pause] key first, then at any time you can press [Play] key, the unit will start playing recorded program from the start.

Press [Goto] to select playing time, play time can not exceed the current time.
Press [Fast forward]/[Fast back] to move through current recording.

Note: Time shifting is only available when USB HDD is connected to system and read/write speed is high enough to support that.

Press [Stop] key first time to end the playing mode. The unit will keep recording but will return to current time. If you press [Pause] the playback will start again from the beginning of the recording. Press [Stop] key again to stop the recording.

(f)Recording

Press [REC] key can record current program to USB disc. Press [REC] repeatedly to choice recording time. Press [INFO] key to see recording information during recording as below:

INFO	
PVR Mode	RECORD
Disk Total Space	31.23GB
Disk Free Space	29.14GB
File System	FAT32
Cluster Size	16KB
File Name	SZTVM04-05152011-01
Max Record Size	29.17GB
Max Record Time	42:16:32
Record Bitrate	202 KB/S
Cur Play Size	0KB
Cur Record Size	37.00MB

Press [PVR] key to open the PVR file list. You can select recorded file and press [OK] to play the file.

Troubleshooting

Problem	Potential Reasons	What to do
No picture	Power isn't connected	Connect the power
	The power switch is not on	Switch on the power
Screen shows "No Signal"	DVB-T2 cable not connected	Plug in the DVB-T2 cable
	Aerial cable is faulty	Check aerial cable and connections
No sound from speaker	No or incorrect connection with audio cable	Connect the audio cable correctly
	Sound on mute	Turn off mute function
Only sound, no image on the screen	Resolution not supported by TV set.	Press V-FORMAT button to change resolution.
	No or incorrect connection with AV cable	Make sure cables are connected correctly
	The program is a radio program	Press <TV/RADIO> key to shift into TV mode
Remote Control is not responding	The battery is exhausted	Change battery
	Remote Control is not facing or close enough to the Set Top Box	Adjust the position of the Remote Control and move closer to the unit
Picture is breaking up	The signal is too weak	Check aerial cable and connections

Technical Specifications

Item	Sub Item	Parameter
System	Standard	ETSI EN 302 755 (DVB-T2)
Tuner	Input Frequency	VHF: 170-230MHz UHF: 470-860MHz
	RF Input Level	-78 ~ -20dBm
	RF Bandwidth	7MHz and 8MHz
	Modulation	QPSK, 16QAM, 64QAM, 256QAM
Video	Decoder Format	MPEG4 AVC/H.264 HP@L4 MPEG2 MP@MP.HL
	Output Format	576i/576p/720p/1080i/1080p
	Output Port	HDMI, AV
Audio	Decoder Format	MPEG-1(layer 1&2&3), WMA, AC3
	Audio Output	Coaxial, L/R
USB2.0	Supported Capacity	500GB
	Supported Media	MP3, WMA, JPEG, BMP, AVI, MKV
Power	Supply Voltage	100-240V ~50/60Hz
	Maximum Power Consumption	<10W
	Standby Power Consumption	<1W
Weight	0.5kg	
Size	130 x 102 x 28 mm	

Notice about recycling



Your product is designed and manufactured with high quality materials and components which can be recycled and reused.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

Please dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

Declaration of Conformity

This product complies with the requirements of the following directives:

Electromagnetic Compatibility (EMC) Directive: 2004/108/EC

Low Voltage Directive (LVD): 2006/96/EC

CE Marking Directive: 93/68/EEC

Energy Using Products Directive: 2005/32/EC

the above directives declare that the DVB-T set top box B1602 is in compliance with following standards:

EN55013:2001+A1:2003+A2:2006

EN61000-3-2:2006

EN61000-3-3:1995+A1:2001+A2:2005

EN55020:2007

EN 60065:2002+A1: 2006

ISO/IEC 17025

COMMISSION REGULATION (EC) No 107/2009

CE



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