

## DVB-S2/T2/C HD Combo STB

Model: Timbox-Combo



### Main Feature:

- DVB-T/T2, DVB-S/S2 and DVB-C tuners and demodulations
- MPEG-2/MPEG-4AVC/H.264 SD/HD decoding
- Automatic, manual and full band channel scanning
- Manage up to 1000 TV and Radio channels
- Channel edition, delete , favorite and parental lock
- True colors on screen display user friendly menu
- Multi languages, English and French by default
- HDMI,CVBS and S/PDIF outputs
- EPG up to 7 days
- Double USB ports for media center and wireless IP dongle
- Instant PVR, EPG PVR and timer PVR via USB memory
- IP access via wireless dongle and 3G/4G dongle thru USB port
- Software upgrade through USB and on air
- Front panel channel number or time display
- RF Signal Strength and quality display with special key of remote control
- Multi language Teletext and subtitle
- Low power consumption and green power standby mode
- Embedded hardware less CA system Enigma
- Infra Red extender in option
- Front panel rack in three colors, gold, red and silver
- Multiple color design gift box
- TV Mounting Bracket compliant with VESA standard



### Technical Specification:

#### DVB-T2/T Tuning and De-Multiplexing

Connector	1 x F type female 75Ω for Input, 1 x IEC 169-2 male 75Ω for loop through output
Input Frequency	104~862MHz (VHF/UHF)
Input Level	-70 ~ -20dBm
Demod standard	DVB-T(EN 300 744) and DVB-T2 (EN302 755)
Demodulation	QPSK, 16QAM, 64QAM for DVB-T QPSK, 16QAM, 64QAM, 256QAM for DVB-T2
FFT Mode	2K, 8K for DVB-T 1K, 2K, 4K, 8K, 16K, 32K, 32K ext for DVB-T2
FEC Code Rate	1/2, 2/3, 3/4, 5/6, 7/8 for DVB-T 1/2, 3/5, 2/3, 3/4, 4/5, 5/6 for DVB-T2
Guard Interval	1/4, 1/8, 1/16, 1/32 for DVB-T 1/4, 19/128, 1/8, 19/256, 1/16, 1/32, 1/128 for DVB-T2
Bandwidth	6MHz, 7MHz, 8MHz
De-multiplexer	MPEG2 ISO/IEC 13818-1

#### DVB-S/S2 Tuning and De-Multiplexing

Connector Type	1 x F type female 75Ω for Input 1 x F type female 75Ω for loop through output
Input Frequency Range	950~2150MHz
Input Level	-25~-65dBm
Symbol Rate	2~45MBaud
Roll-off Factor	DVB-S QPSK: 0.35 DVB-S2 8PSK: 0.35, 0.25, 0.2
FEC Code Rate	DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
LNB Polarity Selection Voltage	0, 13V, 18V selectable
LNB Band Selection Tone	0/22KHz selectable

#### DVB-C Tuning and De-Multiplexing

Connector	1xIEC 169-24 female 75Ω for Input 1xIEC169-1 male 75Ω for loop through output
Standard	Compliant with ITU J.83 Annex A,C, Annex B in option
Input Frequency	47~862MHz
Input Level	43~ 73dBuV for 64QAM, 47~ 77dBuV for 256QAM
Symbol Rate	1~7MBaud with step of 1kBauds
Constellation	16/32/64/128/256QAM
Bandwidth	8MHz in Annex A and C 6MHz in Annex B in option
De-multiplexer	MPEG2 ISO/IEC 13818-1



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## Timbox-Combo



### Digital Video Decoding

Standard	ISO/IEC 13818-2 and ISO/IEC 14496-10
Video Decoding	MPEG-2 MP@ ML for SD, MP@ HL for HD H.264/AVC MP@ L3.0 for SD, HP@ L4.1 for HD VC-1 AP@L1 for SD, AP@L3 for HD
Aspect Ratio	4:3 and 16:9, HD to SD Conversion
Video Resolution	480i/480p/576i/576p/720p/1080i/1080p
Video Bit Rate	MPEG-2 MP@ML: 2~15 Mbps; MPEG-2 MP@HL: <19 Mbps; MPEG-4 AVC HP@L3:<10Mbps; MPEG-4 AVC HP@L4: <20Mbps

### Digital Audio Decoding

Standard	ISO/IEC13818-3 and TR1011154
Audio Decoding	MPEG-1 Layer I & Layer II Musicam Dolby Digital (AC3) & Dolby Digital AC-3/E-AC3 MPEG-2 AAC-LC & MPEG4 HE-AAC AAC5.1, AAC+ Level 2
Audio Mode	Single channel, Dual Channel, Stereo, Joint Stereo
Audio Sampling Rate	22.1kHz, 32kHz, 44.1kHz and 48kHz

### Subtitle & Teletext

Subtitle	DVB Subtitle
Teletext	EBU TELETEXT

### Menu Function

Channel Search	Automatic search based on LCN or NIT Manual search based on Frequency and channel number
Channel Management	Up to 1000 channels edition, delete, move, lock, rename; 8 favorite channel groups
EPG	7 days
Language	English, other languages in option
Software Update	loader through USB and on Air
Security	Menu lock, Parental lock, PIN lock
LCN	Support V1 and V2 service listing
Parental Control	Default setting 'disabled'

### PVR Option

Function	Play/Stop/Record/Pause/Forward/Back, Scheduled Recording using EPG
Profiles	3.x, 4.0, 5.0, 6.0 Home Theater & HD profiles
File System	FAT 32
Media Format	MPEG2, TS, AVI, MKV, ASF, Quick, DivX,FLV, VC-1 DivX 3.X ~ 6.X,; AVI, VOB, MOV, MKV, JPEG,BMP,PNG, Motion JPEG, Flash 3.1 Lite
Connector	USB 2.0 supporting external hard disk of 250-500GB

[www.dh-tv.com](http://www.dh-tv.com)

**Address:** No.3 Feng Zhi East Road, Xi Bei Wang Town, Hai Dian District, Beijing, 100094, China

**Telephone:** (+86)010-57802000, **Email:** support@dh-tv.com



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## Timbox-Combo



### Conditional Access Option

CA Vendor	Hardware less Enigma
CA Type	Smart card less or Smart card

### Interactive application in option

Hbb TV	ETSI TS 102 796 V.1.1.1
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### System Resource

CPU	600MHz
Operating System	ECOS
SDRAM	128Mbytes
FLASH	16Mbytes

### Front Panel

Keys	MENU/OK/VOL+/VOL-/CH+/CH-
7-Segment LED	To display the channel number or/and other information
Bi-colored LED	Red/Green to indicate the various states of the STB
USB	1 x USB 2.0 for external Hard Disk PVR and wireless IP
Power Switch	ON/OFF
Smart Card	Reader compliant to ISO in option

### Back Panel

RF	1 x F-type female 75Ω for DVB-T/T2 or DVB-C input 1 x F-type female 75Ω for DVB-S/S2 Input 1 x IEC 169-2 male 75Ω for loop through output
HDMI	1 x HDMI 1.3 with HDCP (up to 1920x1080p)
CVBS	3 x RCA female for Video, Audio Left and Audio Right
USB	1 x USB 2.0 for external memory and wireless IP
IR EXT	Infra red extender
DC IN	Power supply input

### Physicals

Power Supply	12V DC,1A Antenna input with DC-5V output to feed active antenna
AC-DC Adaptor	Input :100~240V AC Output:12V-1.5A DC
Power Consumption	<9W in operation <1W auto Standby Green Power Mode
Temperature	Operation 0~+45℃; Storage -10~+60℃
Humidity	20~90%, non-condensed
STB Dimension	38mm(Height) × 180mm(Width) × 150mm(Depth)
Gift Box Dimension	100mm(Height)x 230mm(Width)x 190mm(Depth)
Weight	0.8Kg with gift box
Carton Information	520*482*212mm, Gross Weight: 10kg, 10 STB/Carton
Shipment Information	7000 units per 20' container
Accessories	Remote Control, Battery, AV Cable, User Guide, HDMI Cable in option, Infra red extender in option

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## Timbox-Combo



TV Mounting Bracket  
Compatible with VESA standard: 50\*50mm,  
75\*75mm, 100\*100mm, 200\*100mm and 200\*200mm

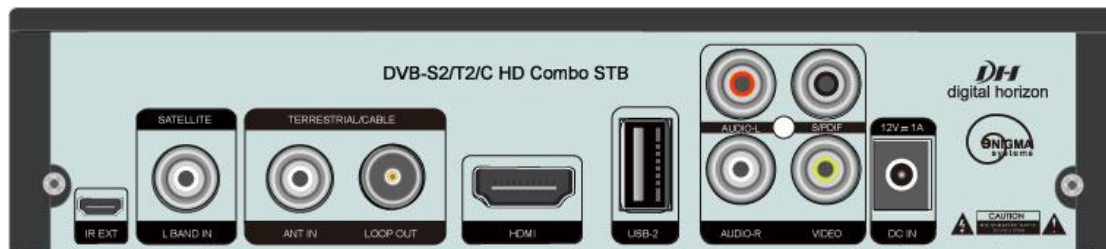
### Remote Control Unit

Model	R-16 for basic function, R-10 with TV auto learning
Number of Key	45 for R-16, 43+5 for R-10
Mode	Infra Red with 38kHz Carrier
Battery	2 x 1.5V, AAA for R-16 2 x 1.5V, AA for R-10

### Front Panel:



### Rear Panel:



### Infra Red Extender:



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### Remote Control:

R-10



R-18



### Gift Box Design:

