

#### SHENZHEN GIEC DIGITAL CO.,LTD.

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#### Part SET Top Box(FTA STB)

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#### **About GIEC**

GIEC has been a leading company in consumer electronics products since 1999. The major products include Set Top Box (DVB,IPTV,OTT), Tablet/Labtop,AI Speakers, WiFi/Bluetooth Speakers, Soundbar, LED lights and Smart home products.

As a first-class electronics enterprise in China and as business is intensely increased, GIEC has finished setting up its own modern industrial park, covering over 138,000 square meters. The new industrial park is already in operation and it is located in Pingdi , Longgang, Shenzhen, which is a low carbon city. The new industrial park will be complied with the principles of low carbon. It runs strictly under regulations of ISO 9001 and ISO 14001 standard and in correspondence with ROHS, CE, UL, FCC, FDA, GS and so on. We can always guarantee the reliable quality with competitive price.

#### Nowadays GIEC has reached over 1.6 million-unit monthly capacity.

Staffed over 400 experienced proficient engineers in R & D team, GIEC has the capability to supply a total solution from ID design to final product and after service. Also GIEC always attach great importance to adopt latest technology and constantly bring up the most up-to-date products to entertain our valued customers worldwide. Meanwhile, as a well-known brand in domestic market, GIEC has established effective sales networks with 110 agents and 10,000 authorized dealers in the main cities.

Your satisfaction is our final target, we aim to work on mutual benefit for long term with you.

GIEC Industrial Park

#### **GIEC Set Top Box Advantage**

#### Product Innovation

The value of technological innovation, based on practice and application GIEC keeps foothold in the frontier of technology for world market, continuously launches product to meet the market demand, and get environmental concepts into product design, from a scientific design to technique innovation, in full compliance with the EU ROHS environmental protection standard, balances the development in economic, social and environmental benefits.





#### Giec Supply High Quality Hardware Products, Our Hardware Has The Main Testing As Below:

#### Stablity Test

7\*24 Hours Severe Test with high bitrate Steam High temperature load test Low temperature load test Drop and vibration test High voltage test Power adaptation test Electrostatic test









#### New System(MES+ERP+GIEC Testing system)

Through the 3 in 1 system, we can control sales order, purchasing, materials control ,production and delivery, control the whole order process.

Much easier to trace the details for each product and control each step of the production.

#### Thermal Design

Professional thermal simulation, ensure device control and test every hot spot temperature working stably when temperature increases

#### Meet The Requirements Of Various Customers

Rich experience in RF design hardware design can meet the requirements of various customers safe and reliable power supply solution customize different mould solution, such as SAGEMCOM, BESTBUY, PHILIPS, Walmart, etc.

#### Perfect Testing Team

Standard testing example continuous improve testing method guarantee the reliability of software and hardware

#### **Program Failure Testing**

Professional program failure testing, 1000 times test under compulsive power on/off condition and any kind of informal power-off operation

#### Components Selection

All components selected are well-known brand in the industry







#### **Product Certifications**

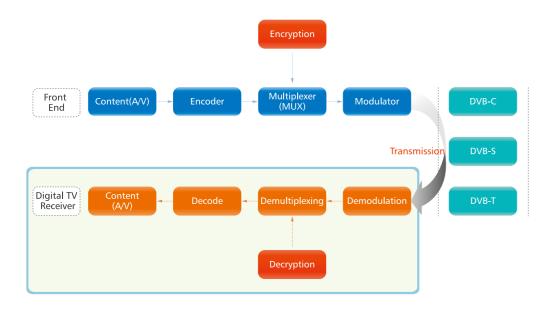
CE/FCC/Rohs; Product can pass CE/FCC certifications

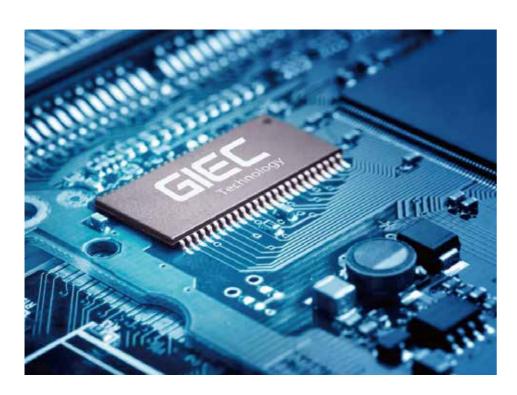
03 Hardware Advantages Hardware Advantages 04



#### **PAY TV BOX**

Operators deploy scrambling multiplexer, conditional access system (CAS) in the front end and then content will be scrambled. First of all, terminal PAY TV BOX will decrypt control word(CW) encrypted in the front end by integrated CA module, then content will be descrambed and output in a clear-stream way.







#### • GK-BC1223 Product Dimension: 120\*100\*34mm





- Support DVB-C MPEG2 H.264
- Support 32,64,128 and 256QAM
- Support USB PVR and Media player
- Support Card Solution
- Support Software Upgrade By OTA or USB
- Support Advanced Security or Standard Security



# **DVB**-S2 © © 12:58 · **»** Specifications Product Dimension: 122\*86\*26mm



Cardless



- Support DVB-S2
- Support MPEG-1/2/4, H.264, VP8
- Support USB PVR, Timeshifting and Media Player
- Support Cardless, Advanced Security
- Support Software Upgrade By OTA or USB

• GK-BDSC1726 Product Dimension: 170\*120\*28mm





#### >> Specifications

- Support DVB-S2 MPEG4
- Support QPSK/8PSK
- Support USB PVR and Media player
- Support Smart Card Interface or Cardless Solution
- Support Software Upgrade By OTA or USB
- Support Advanced Security or Standard Security

#### **DVB**-T2



• GK-BHT1804 Product Dimension: 180x121.5x30mm











#### >> Specifications

- Support DVB-T2, H.264/MPEG4
- Support Single and Multiple PLPS
- Support Smart Card or Cardless
- Support Software Upgrade By OTA or USB
- Support Standard Security/Advanced Security

09 DVB-S2















- CPU: High-performance Quad-core ARM Cortex-A53 CPU
- GPU: High-performance Penta-core Mali 3D GPU
- Support H.265 10bit 4K 60fps decoder
- Adopt 28nm advanced technology, high-performance, low-power consumption
- Decode format: The abundant of Audio &Video decode ability, support AVS, AVS+,VP9 and etc, support Dolby/Dolby plus and etc
- Support file formats: mkv, wmv, mv, mpg, mpeg, dat, avi, mov, iso, mp4, rm and jpg
- High-intergration: Built-in audio DAC, integrated 100M ePHY, support WIFI COB design
- Security design: support security- boot, anti-root, support the advanced security
- Mechanism of the operator, support main-stream DRM
- Mature design: Provide complete OTT/IPTV solution
- Support the cloud game
- Support 1GB DDR3/2G DDR3 optional
- Support high-speech WiFi/BT optional









- CPU: Quad Core ARM Cortex-A53 CPU
- GPU: ARM G31 MP2 GPU
- Support Multi-video decoder up to 4K x 2K@60fps +1x1080p@60fps(H.264, H.265, VP9, MPEG-1/2/4, AVS/AVS+, WMV/VC-1, Real video 8/9/10)
- Support file formats: mkv, wmv, mpg, mpeg, dat, mov, iso, mp4, rm, jpg
- Support audio formats: mp3, AAC, wma, rm, Flac, OGG, Dolby(optional), programmable with 7.1/5.1 down-mixing
- Support HDR10, HDR10+, HLG and Technicolor HDR processing, Dolby Vision(optional)
- Integrated IEEE 802.3 10/100/1000M Gigabit Ethernet MAC, Integrated 10/100M Ethernet PHY interface
- Support 1GB DDR3/2G DDR3 optional
- 2T2R+BT



# $+DVB-T\overline{2}$

GK-MP1630 Product Dimension: 162x120x32mm

















- CPU: High-performance Quad core Cortex-A53
- GPU: High-performance Pento core Mail-450
- Support H.265 10bit 4K 60fps decoder
- · Adopt 28nm advanced technology, high-performance, low-power consumption
- Decode format: The abundant of Audio &Video decode ability, support AVS, AVS+,VP9 and etc, support Dolby/Dolby plus and etc
- Support file formats: mkv, wmv, mpg, mpeg, dat, avi, mov, iso, mp4, rm and jpg
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- Security design: support security- boot, anti-root, support the advanced security
- Mechanism of the operator, support main-stream DRM
- Mature design: Provide complete OTT/IPTV solution
- Support the cloud game
- Support 1GB and 2GB DDR3
- Support high-speech WiFi/BT optional



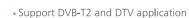












- CPU: High-performance Quad core Cortex-A53
- GPU: High-performance Pento core Mail-450
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- Decode format: The abundant of Audio &Video decode ability, support AVS, AVS+,VP9 and etc, support Dolby/Dolby plus and etc
- Support file formats: mkv, wmv, mpg, mpeg, dat, avi, mov, iso, mp4, rm and jpg
- High-intergration: Built-in audio DAC, integrated 100M ePHY, support WIFI COB design
- Security design: support security- boot, anti-root, support the advanced security
- Mechanism of the operator, support main-stream DRM
- Mature design: Provide complete OTT/IPTV solution
- Support the cloud game
- Support 1GB and 2GB DDR3
- Support high-speech WIFI













#### **HEVC** 4K DVB-T2



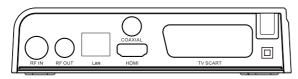
• GK-BHT1525 Product Dimension: 150x98x35mm











#### >> Specifications

- Fully DVB-T2 compliant MPEG-2/4, H.264, H.265, AVC, AVS/AVS+, VC-1, VP8, VP9 Decoder
- Support 4K x 2K P50/60 output for HDMI
- Support 4K ultra-high definition display and decoder
- HDR multiple format, IPTV, Youtube
- OTA/PVR/Timeshift/Multimedia Player
- Support HDMI, Scart, Coaxial, RJ45
- Support 480i,480p,576i,576p,720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP/PNG format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC











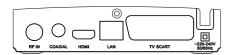
#### >> Specifications

- Fully DVB-T2 compliant
- Support MPEG-1, MPEG-2, MPEG-4, H.264, H.265 decoder
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support HDMI, IR, USB
- Support 480i,480p,576i,576p,720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP/PNG format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC



17 HEVC 4K DVB-T2

#### **HEVC** DVB-T2/Stick





• GK-BHT1535 Product Dimension: 150x98x35mm

#### **» Specifications**

- Fully DVB-T2 compliant
- Support MPEG-1, MPEG-2, MPEG-4, H.264, H.265 decoder
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support HDMI, RCA3/Scart, Coaxial, RJ45 output
- Support FTP Client, RSS, Yahoo weather, Youtube
- Definition support: 480i,480p,576i,576p,720p, 1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP/PNG format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC











#### >> Specifications

- Fully DVB-T2 compliant
- Support MPEG-1/2/4, H.264, H.265 decoder
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support RF in/out, HDMI,RJ45 output
- Support FTP Client, RSS, Yahoo weather, Youtube, IPTV
- Definition support: 480i,480p,576i,576p,720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI and JPEG/BMP/PNG formats
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC
- GK-BDT1133

Product Dimension: 110x60x24mm





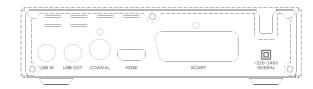
GK-BHT1626

Product Dimension: 160x108x40mm







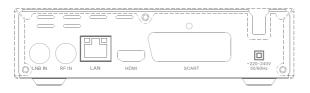


- Satellite Receiver Standard ETS 302 307
- Data Rate 1-45 Msps(QPSK/8PSK)
- Constellation QPSK /8PSK
- FFC 1/2, 2/3, 3/4, 4/5, 5/6, 7/8, 8/9, 9/10
- Roll-off factors 0.2, 0.25, 0.35
- Enhanced Time-shift and PVR
- · Support 576i, 576p,720p,1080i, 1080P HD output(60fps)
- Support 7 days EPG for on screen channel information
- Support Multi-subtitle and Teletext
- Support Dolby/Dolby Plus, HE-AAC



# **HEVC**DVB-T2 +S2 combo













#### >> Specifications

- Support MPEG-2/4, H.264, H.265, VC-1, AVS/AVS+, VP8, VP9 Decoder
- Support DVB-T/ T2 tuner RF in
- Support DVB-S2 tuner LNB in
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support HDMI, Scart, Coaxial, RJ45 output
- Support FTP Client, RSS, Yahoo weather, Youtube
- Definition support: 480i,480p,576i,576p, 720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support JPEG/BMP/PNG format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC





#### • GK-BHT1723

Product Dimension: 170x108x35mm





#### >> Specifications

- Fully DVB-T2 compliant, watching & recording
- Support MPEG-1/2/4, H.264, H.265, VC-1 Decoder
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support HDMI, Scart, Coaxial, RJ45 output
- Support FTP Client, RSS, Yahoo weather, Youtube
- Definition support: 480i,480p,576i,576p,720p, 1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support JPEG/BMP/PNG format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus, HE-AAC



21 HEVC DVB-T2 + S2 Combo HEVC DVB-T2 22

#### **ISDB-T** Zapper



#### GK-BHT1131 Product Dimension: 105x90x26mm



#### >> Specifications

- Fully ISDB-T compliant
- Support MPEG-1, MPEG-2, MPEG-4, H.264 decoder
- Support USB2.0 PVR, Timeshifting and Multimedia player
- Support HDMI, RCA output, LED display
- Definition support: 480i,480p,576i,576p,720p, 1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP format
- Support 7 days EPG and Multi-language OSD menu







• GK-BHT1225 Product Dimension: 123x95x28mm

- Fully ISDB-T Ginga NCL compliant
- Support MPEG-2/4, H.264, AVS/AVS+, VC-1, VP8, VP9 Decoder
- Support USB2.0 software upgrade, 3G Dongle / WiFi Dongle
- Definition support: 720 x 576p, 720 x 576i
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP format
- Support RF modulator channel 3/4 output



#### **DVB**-T2

#### » Specifications

- Fully DVB-T2 compliant, H.264
- Support MPEG-1, MPEG-2, MPEG-4, H.264 decoder
- Support USB2.0 host/OTA upgrade, PVR, Timeshifting and Multimedia player
- Support HDMI, RCA3/Scart , Coaxial output
- Definition support: 480i,480p,576i,576p, 720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby(optional)



GK-BHT0908Product Dimension: 89x62x26mm



#### • GK-BHT1120

Product Dimension: 105x80x26mm











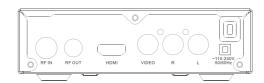






• GK-BHT1230 | Product Dimension: 120x107x35mm















#### ATSC HD

#### • GK-BHT1217

| Product Dimension: 125x93x29mm



#### • GK-BHT1532

Product Dimension: 150x98x36mm











#### >> Specifications

- Fully ATSC HD compliant
- Support MPEG-1, MPEG-2, MPEG-4, H.264 decoder
- Support USB2.0 PVR Timeshifting and Multimedia player
- Support HDMI, RCA3 output, RF molulator
- Definition support: 480i, 480p, 576i, 576p, 720p,1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP format
- Support 7 days EPG and Multi-language OSD menu
- Support Dolby/Dolby Plus/HE-AAC



### **DTMB**



Product Dimension: 130x102x30mm



• GK-BHT1530

Product Dimension: 150x98x36mm











- Support DTMB for Cuba region
- Support MPEG-1, MPEG-2, MPEG-4, AVS+, H.264 decoder
- Support USB2.0 host, PVR, Timeshifting and Multimedia player
- Support HDMI, RCA3, Coaxial output
- Definition support: 480i,480p,576i,576p,720p, 1080i,1080p
- Support TS/MKV/MP4/MPG/AVI video formats
- Support OGG format
- Audio format: MPEG layer 1/2/AAC
- Support JPEG/BMP format
- Support 7 days EPG and Multi-language OSD menu
- Support Data Broadcasting



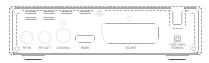
#### **DVB**-S2

• **GK-BIT1134** Product Dimension: 105x90x26mm





• **GK-BHT1622** Product Dimension: 160x108x40mm





#### >> Specifications

- Satellite Receiver Standard ETS 302 307
- Data Rate 1-45 Msps(QPSK/8PSK)
- MPEG-1/2/4, H.264, AVS/AVS+, VC-1, VP8 Decoder
- Enhanced Time-shift and PVR
- Support 576i, 576p,720p,1080i,1080P HD output
- Support 7 days EPG for on screen channel information
- Support Multi-subtitle and Teletext
- Support Biss key
- Support Dolby/Dolby Plus/HE-AAC







- Support MPEG-1, MPEG-2, MPEG-4, H.264 decoder
- Support DVB-S2 tuner LNB in / LNB out
- Support CI card
- Support HDMI, Scart, Coaxial, output
- Support PVR, Timeshifting, Multimedia player and software upgrade via USB2.0 jack
- Support high definition: SD/HD max. 1920\*1080 pixel
- Support Multi-media player with HDD
- U-FLASH (FAT12/FAT16/FAT32/NTFS)
- Support Multi-language OSD Menu



## **HbbTV** (DVB-T/T2)

# GK-BHT1902 Product Dimension: 190x125x40mm





#### **»** Specifications

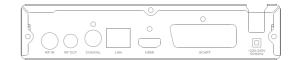
- Support DVB-T/T2 H.264/MPEG4, HBBTV 1.5V
- Support 32,64,128 and 256QAM
- Support USB PVR and Media player
- Support PVOD Solution
- Support LAN Port
- Support Youtube, Web Brower, Facebook, Twitter, etc



# **HbbTV** (DVB-S2)



• **GK-BHT2106** | Product Dimension: 215x110x40mm















#### **»** Specifications

- DVB-S2/S Satellite Receiver Standard, HBBTV 1.5V
- LED display
- Channel change to user pre-defined channel on user defined time
- Channel Record Booking
- Support 576i, 576p,720p,1080i,1080P HD output
- Support Red key, Main menu, EPG, Video on demand
- Support Lan-port
- Support youtube, Web Browser, Facebook, twitter etc



31 HBBTV (DVB-T/T2) HBBTV (DVB-S2) 32

# **DVB OTA**Streaming

#### >> Specifications

- Support 2 DVB T2 tuner input / 2 to 4 ATSC tuner input
- Support Transcoding of MPEG2 Content from DVB T2/ATSC to H.264 for mobile device consumption
- Support 2 DVB T2 / 2 to 4 ATSC stream at full 1080i
- Systems can support external or internal HDD for DVR/Timeshift Options
- Systems can support Placeshift options for out of home video consumption
- Support Transcoding to lower bitrates and resolution to support slower networks upload speeds
- Networking options include Ethernet and WIFI



#### Watch Free Live HDTV on Any Screen, Anywhere and Anytime

Support a wide range of end display devices





#### » Packing Information

	105MM	125MM	150MM	160MM	190MM	230MM
Unit Ddimension	105x80x26 (mm)	125x99x38 (mm)	150x108x40 (mm)	160x110x45 (mm)	190x125x40 (mm)	230x132x40 (mm)
Qty per GB	1рс	1pc	1pc	1pc	1pc	1pc
GB:(WxHxL)	186x112x48 (mm)	171x151x55 (mm)	182x175x54 (mm)	186x196x55 (mm)	227x193x63 (mm)	255x184x58 (mm)
GB:(G.W.)	0.18 kg	0.38 kg	0.36 kg	0.40kg	0.46kg	0.78 kg
Qty Per Export Carton	20 pcs	32 pcs	20 pcs	10 pcs	20 pcs	10 pcs
Export carton (WxHxL)	374x256x250 (mm)	466x356x329 (mm)	356x292x334 (mm)	395x292x225 (mm)	484x340x402 (mm)	314x268x462 (mm)
Export carton (G.W.)	5.9 kg	11.7 kg	8.7 kg	5.5 kg	12.2 kg	8.2 kg
Units per 20"/40"/40" HQ	24600/51300 /58000 pcs	17280/36000 /41120 pcs	16800/35200 /39800 pcs	11600/24200 /27110 pcs	8880/18500 /21000 pcs	8000/16700 /18000 pcs