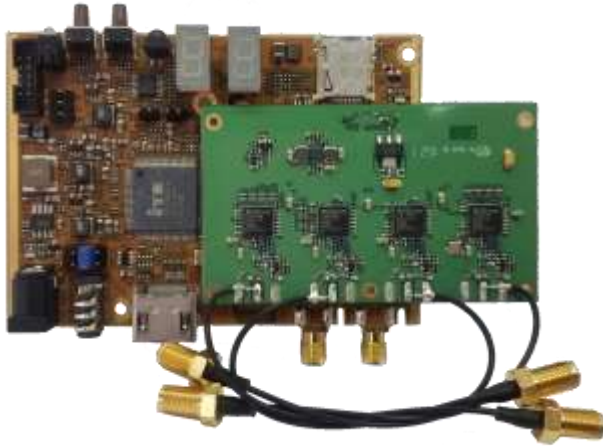


# HiDES Easy HD Expressway!

HV-124 Full HD 4-Way **Diversity** Digital TV Receiver

For HAM and FPV



HV-124 is a 1080 Full HD diversity receiver box which receives and decodes DVB-T (ETSI EN 300 744) HD/SD terrestrial broadcast signals. It features the video output of HDMI and Composite (CVBS) for DVB-T.

HV-124 is designed with 4-way diversity antenna reception, which can enhance high mobility support and mitigate multi-path effect.

Besides remote controller, HV-124 can be configured and controlled thru its UART port by an external host.

HV-124 can decode the mux'ed UART data in received streams and output thru its local UART port.

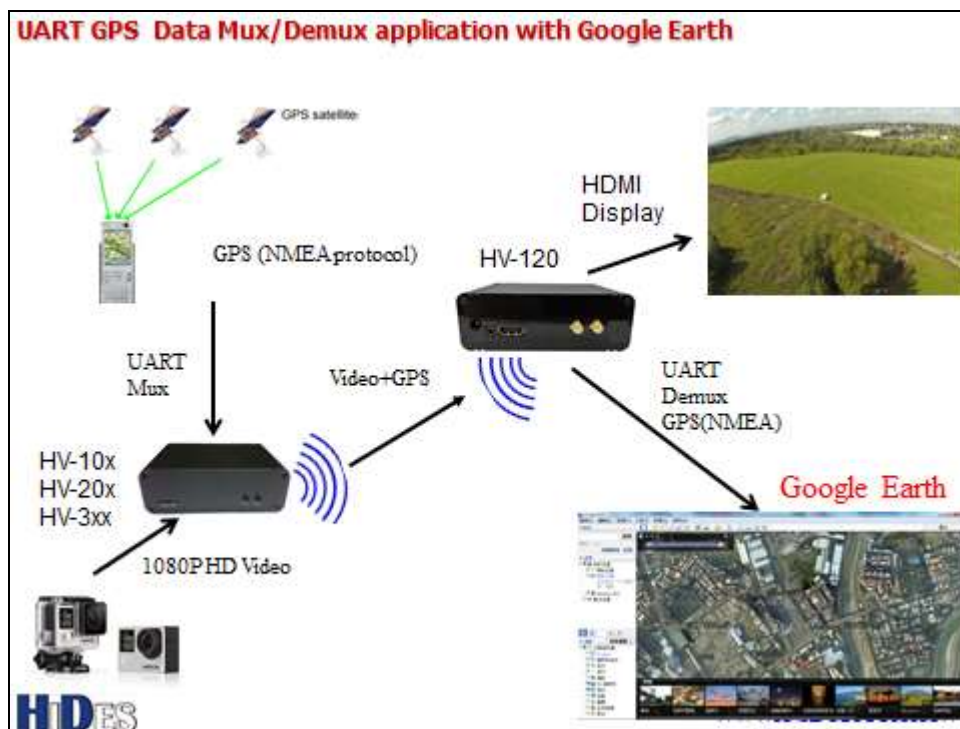
**Besides standard TV channel bandwidth (5/6/7/8MHz), HV-124 can tune 1/1.5/2/2.5/3/4 MHz bandwidth channels.**

## Features

- Standalone Digital DVB-T receiver
- Support 1080 Full HD H.264 and MPEG2 decoding
- Frequency Band Support
  - 170~860MHz
- Four Antenna SMA connectors
- Composite video output/ Stereo Analog (L/R) output

# HiDES Easy HD Expressway!

- Digital HDMI audio and video output
- On-Screen Display Menu
- Automatic or manual channel scan
- 1/1.5/2/2.5/3/4/5/6/7/8 MHz Bandwidth support
- **12V active antenna supported (up to 500mA)**
- **Demultiplex UART data in received TS transmitted by Hides transmitter.**
- **Decrypt encrypted TS data transmitted by Hides transmitter.**



- **UART control interface for external host**
- **Optional LCM configuration tool (HL-100) is also available.**



# **HiDES** Easy HD Expressway!

- **Order Information :**

<b>Model Number</b>	<b>RF-in filter for &gt;1GHz band</b>	<b>Frequency Band Supported</b>
<b>HV-124</b>	<b>N/A</b>	<b>170~862 MHz</b>
<b>HL-100R (optional)</b>	<b>LCM configuration tool</b>	

## Specifications :

RF Inputs				
Frequency	HV-124: 170~862 MHz			
Bandwidth	Single Antenna or 2-way	1/1.5/2/2.5/3/4/ 5/6/7/8 MHz		
	Diversity (Ant-1 & 3)			
	4-way Diversity Antenna	2.5/3/4/ 5/6/7/8 MHz		
Demodulation	COFDM (ETSI EN 300 744 DVB-T)			
FFT mode	2K, 4K, 8K			
Constellation	QPSK, 16QAM, 64QAM			
Guard interval	1/4, 1/8, 1/16, 1/32			
Inner coding rate	1/2, 2/3, 3/4, 5/6, 7/8			
RF Performance (Single Antenna only)	Pmax	>+5 dBm		
	Pmin @ FFT:2K, 16QAM,CR:2/3 GI:1/8	Bandwidth	Sensitivity	
		1 MHz	<-99 dBm	
		1.5 MHz	<-98 dBm	
		2 MHz	<-96 dBm	
		2.5 MHz	<-95 dBm	
		3 MHz	<-95 dBm	
		4 MHz	<-94 dBm	
		5 MHz	<-92 dBm	
		6 MHz	<-91 dBm	
7 MHz	<-90 dBm			
8 MHz	<-90 dBm			
Mobility Performance RF Level=-50dBm,53 0MHz 8MHz,	2K 16QAM R3/4,GI=1/4: 300KM/H 8K 16QAM R2/3,GI=1/4:120KM/H 8K 64QAM R2/3,GI=1/4:80 KM/H			

<p>C/N=OFF</p> <p>Average Packet Error</p> <p>Rate &lt; 5x10<sup>-3</sup></p>																															
<p><b>Mobility</b></p> <p>TU6/RA6/Doppler Performance</p>	<p><b>Results</b></p> <p><b>Typical Urban Reception (TU6) Results</b></p> <p>The following results are the Doppler Frequency to achieve the point of failure of 1 picture artefact or error in a 20 second time period:</p> <table border="1" data-bbox="470 510 994 622"> <thead> <tr> <th>Modulation Mode</th> <th>typ</th> </tr> </thead> <tbody> <tr> <td>8K 64QAM, FEC 1/2 and Guard Band 1/8</td> <td>45Hz</td> </tr> <tr> <td>8K 64QAM, FEC 2/3 and Guard Band 1/8</td> <td>26Hz</td> </tr> <tr> <td>2K 64QAM, FEC 2/3 and Guard Band 1/32</td> <td>128Hz</td> </tr> <tr> <td>2K 16QAM, FEC 3/4 and Guard Band 1/32</td> <td>195Hz</td> </tr> </tbody> </table> <p><b>Rural Area Reception (RA6) Results</b></p> <p>The following results are the Doppler Frequency to achieve the point of failure of 1 picture artefact or error in a 20 second time period:</p> <table border="1" data-bbox="470 786 994 898"> <thead> <tr> <th>Modulation Mode</th> <th>typ</th> </tr> </thead> <tbody> <tr> <td>8K 64QAM, FEC 1/2 and Guard Band 1/8</td> <td>30Hz</td> </tr> <tr> <td>8K 64QAM, FEC 2/3 and Guard Band 1/8</td> <td>20Hz</td> </tr> <tr> <td>2K 64QAM, FEC 2/3 and Guard Band 1/32</td> <td>86Hz</td> </tr> <tr> <td>2K 16QAM, FEC 3/4 and Guard Band 1/32</td> <td>119Hz</td> </tr> </tbody> </table> <p><b>0dB Echo With Doppler Reception (0dB) Results</b></p> <p>The following results are the Doppler Frequency to achieve the point of failure of 1 picture artefact or error in a 20 second time period:</p> <table border="1" data-bbox="470 1010 994 1122"> <thead> <tr> <th>Modulation Mode</th> <th>typ</th> </tr> </thead> <tbody> <tr> <td>8K 64QAM, FEC 1/2 and Guard Band 1/8</td> <td>50Hz</td> </tr> <tr> <td>8K 64QAM, FEC 2/3 and Guard Band 1/8</td> <td>43Hz</td> </tr> <tr> <td>2K 64QAM, FEC 2/3 and Guard Band 1/32</td> <td>160Hz</td> </tr> <tr> <td>2K 16QAM, FEC 3/4 and Guard Band 1/32</td> <td>233Hz</td> </tr> </tbody> </table>	Modulation Mode	typ	8K 64QAM, FEC 1/2 and Guard Band 1/8	45Hz	8K 64QAM, FEC 2/3 and Guard Band 1/8	26Hz	2K 64QAM, FEC 2/3 and Guard Band 1/32	128Hz	2K 16QAM, FEC 3/4 and Guard Band 1/32	195Hz	Modulation Mode	typ	8K 64QAM, FEC 1/2 and Guard Band 1/8	30Hz	8K 64QAM, FEC 2/3 and Guard Band 1/8	20Hz	2K 64QAM, FEC 2/3 and Guard Band 1/32	86Hz	2K 16QAM, FEC 3/4 and Guard Band 1/32	119Hz	Modulation Mode	typ	8K 64QAM, FEC 1/2 and Guard Band 1/8	50Hz	8K 64QAM, FEC 2/3 and Guard Band 1/8	43Hz	2K 64QAM, FEC 2/3 and Guard Band 1/32	160Hz	2K 16QAM, FEC 3/4 and Guard Band 1/32	233Hz
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## Video

<p>Formats</p>	<p>MPEG-2 MP@ML, MPEG-2 MP@HL</p> <p>MPEG4 AVC/H.264 <a href="#">MP@L4.1</a>, MPEG4 AVC/H.264 HP@L4.1</p>
<p>Output</p>	<p>Digital HD video, CVBS</p>
<p>Aspect ratio</p>	<p>4:3 and 16:9 (Letter Box, Pan &amp; Scan)</p>

## Audio

<p>Decode</p>	<p>MPEG-1 layer I/II, MP3, MPEG-2 layer II, MPEG-2 AAC, MPEG-4 HE-AAC</p>
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# HiDES Easy HD Expressway!

Sampling rate	32KHz, 44.1KHz, 48KHz	
Output	Stereo line-out and HDMI digital output	
<b>Front panel</b>		
IR remote		
7-segment LED display: Status		
LED :Power and Channel lock status		
<b>Rear panel</b>		
Power-in (DC Jack or Micro-USB)		
Two SMA RF-in		
CVBS/Audio-L/Audio-R Jack		
Digital HD video		
<b>Power Supply</b>	HV-124	12 VDC Typical Consumption 6.12 Watt (510mA)
<b>Dimension</b>	(Bare bone PCBA size: 100mmx70mm)	
<b>Weight</b>	(Bare bone PCBA weight 100g)	

Specifications are subject to change without prior notice.