

## UT-100 USB DVB-T Modulator/Demodulator



### UT-100 - Features

USB based modulator/demodulator with support for EN 300-744 DVB-T transmission and reception.

Powered from the USB bus, so no external power adapter is required

Full hardware modulation/demodulation, no host CPU computation required.

#### Modulator (Transmitter):

Direct digital conversion to 50..950MHz for excellent signal quality

UT-100A/UT-100B/UT-100C support configurable bandwidth from 2MHz to 8 MHz.

(Note: UT-100D supports only receiving and does not support transmitting.)

Support only non-hierarchy mode

Programmable digital attenuator

Free Windows Stream Player

Free Windows and Linux SDK

#### Demodulator (Receiver):

UT-100A supports Worldwide Free to Air Digital Terrestrial (DVB-T)

Receptions (5/ 6 / 7 / 8 MHz bandwidth)

UT-100B/UT-100D is a special custom version (supporting 2/3/4 MHz bandwidth) for amateur HAM TV reception.

(Note:UT-100C supports only transmitting and does not support receiving.)

Standard Windows DVB-T BDA driver provided

Windows Media Center compatible DVB-T TV tuner

### UT-100 - Applications

DVB-T signal generator

# **HiDES** Easy HD Expressway!

Demonstrations  
Research and development  
Video Broadcast/Distribution  
Digital Signage  
Wireless Display  
Hotel TV  
Hospital TV  
On-Board TV  
Luxury Home Entertainment  
Hotel Info TV  
Trade Shows  
Mall Info TV  
Campus TV  
In Stadium  
Live Sports  
Monitoring  
Surveillance  
Corporate TV  
Industrial Monitoring  
Amateur HAM TV

## Host Requirements

- CPU: Intel, AMD, ARM, MIPS
- 128MB RAM of system memory or above
- Higher CPU and memory required if DVB-T audio/video decoding is needed
- One available USB2.0 or 1.1 port

Note: USB 1.1 can only support 3~5 Mbps stream data rate.

| Parameter    | Value   |         |                   |
|--------------|---|---------|-------------------|
| RF connector | Two 75-Ω MCX (female) connectors, one for Tx and one for Rx |         |                   |
| Bandwidth    | Transmitter   | UT-100A | 2/3/4/5/6/7/8 MHz |
|              |   | UT-100B | 2/3/4/5/6/7/8 MHz |
|              |   | UT-100C | 2/3/4/5/6/7/8 MHz |
|              |   | UT-100D | n/a               |

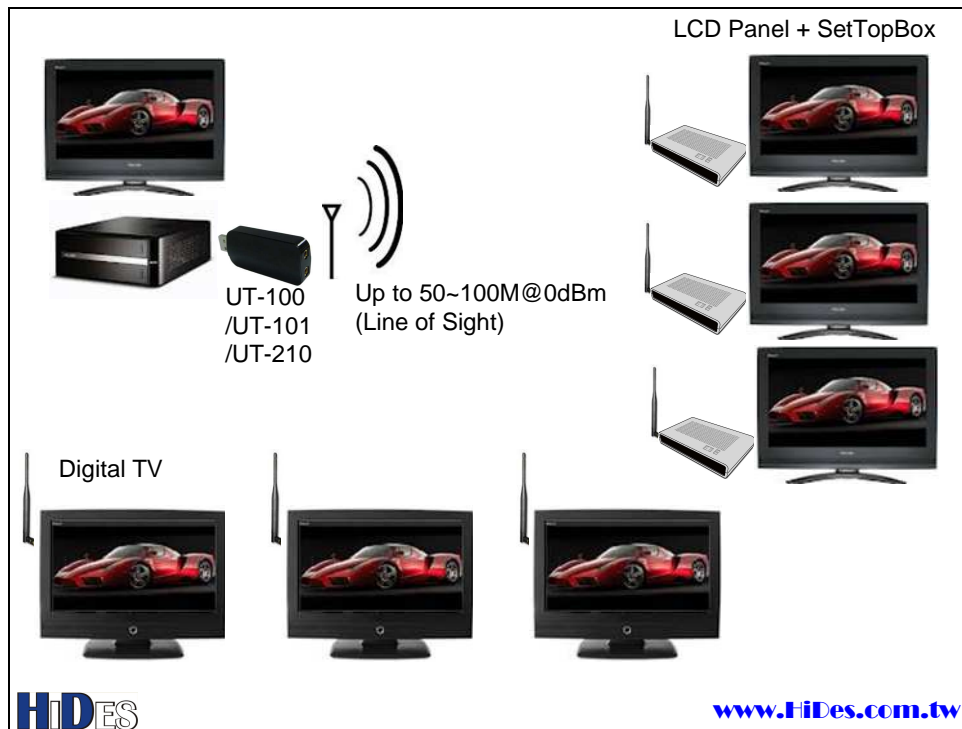
# HiDES Easy HD Expressway!

|   |  |         |            |
|---|--|---------|------------|
|   | Receiver   | UT-100A | 5/6/7/8MHz |
|   |  | UT-100B | 2/3/4 MHz  |
|   |  | UT-100C | n/a        |
|   |  | UT-100D | 2/3/4 MHz  |
| FFT                                     | 2K, 8K   |         |            |
| Constellation                           | 64QAM/16QAM/QPSK   |         |            |
| Code rate                               | 1/2, 2/3, 3/4, 5/6, 7/8  |         |            |
| Guard interval                          | 1/4, 1/8, 1/16 or 1/32   |         |            |
| /Frequency range                        | 50 .. 950MHz , step size 1KHz  |         |            |
| RF Output Level                         | 0 dBm (108 dBuV)   |         |            |
| Digital Attenuator                      | Range:+6/-25dB* , Step size 1dB  |         |            |
| MER                                     | 35dB Typically   |         |            |
| Spectrum Shoulder<br>(Adjacent channel) | 45dB   |         |            |
| Phase noise                             | <-92dBc @ 10kHz  |         |            |
| Carrier Suppression                     | >42dB  |         |            |
| USB port                                | USB 2.0 or USB 1.1   |         |            |
| Power                                   | 5V DC (USB Bus Power)<br>390mA (Tx and Rx)<br>170mA(Rx only)<br>340mA(Tx only) |         |            |
| Dimensions (LxWxH)                      | 75x 30 x 15mm  |         |            |

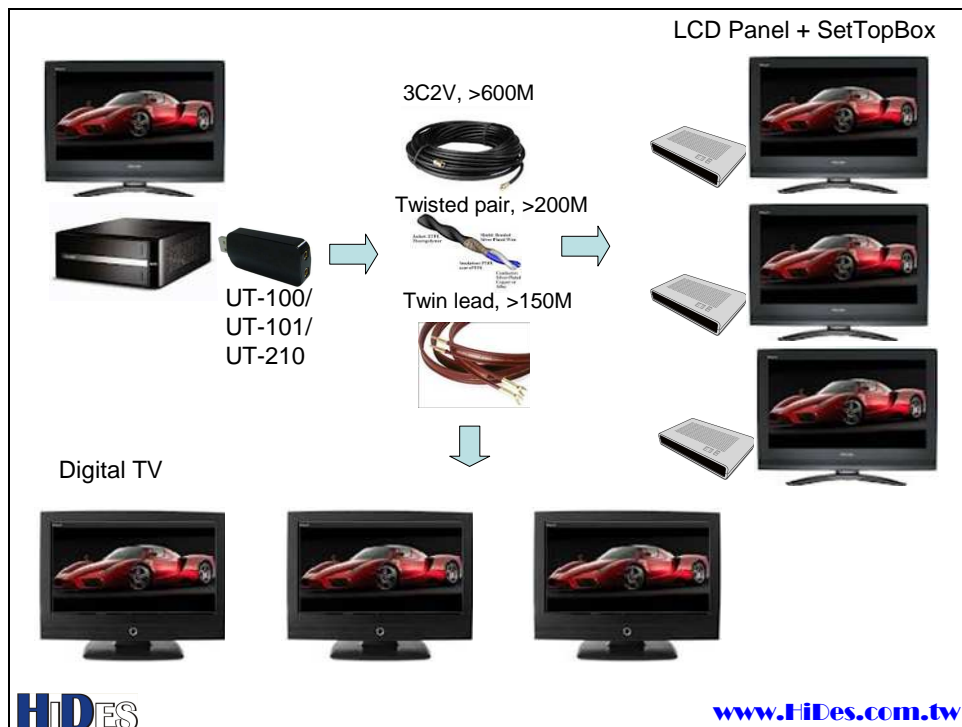
Note: There could be MER loss in high gain/attenuation level.

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## Digital Signage Application Scenario-Wireless



## Digital Signage Application Scenario-Wired



# HiDES Easy HD Expressway!

Mini-headend full HD TV Broadcast System

UT-100/  
UT-101/  
UT-210

HiDES [www.FiDes.com.tw](http://www.FiDes.com.tw)

### Mini-headend Broadcast Solution

ATOM PC  
Or Tablet

UT-100/  
UT-101/  
UT-210

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## System Deployment Example – Bus Topology

