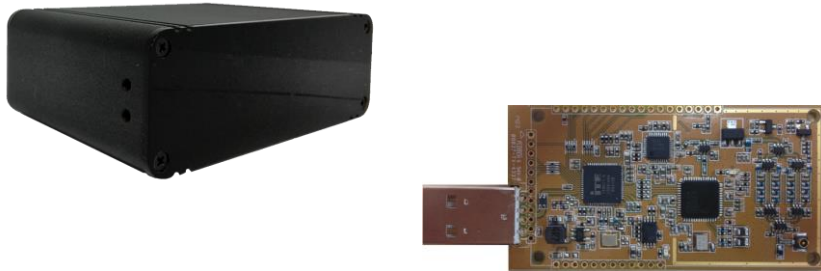


# **HiDES** Easy HD Expressway!

## UT-210 Professional 4-band (100MHz~2500MHz) USB DVB-T/ISDB-T Modulator



### UT-210 - Features

USB based modulator with support for EN 300 744 DVB-T and ARIB STD-B31 ISDB-T/ABNT NBR 15601 ISDB-Tb transmission.

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

Full hardware modulation, no host CPU computation required.

Professional grade modulation error rate (MER)

### Modulator (Transmitter):

**Direct digital conversion to 100..2500 MHz for excellent signal quality**

Standard 1/2/3/4/5/6/7/8 MHz bandwidth

ISDB-T Layer mode supported: 1-layer (13-seg) and 2-layer (12+1 seg)

No time-interleaver support in ISDB-T mode

Programmable digital attenuator

Free Windows Stream Player

Free Windows and Linux SDK

### UT-210 - Applications

DVB-T/ISDB-T/-Tb signal generator

Demonstrations

Research and development

Video Broadcast/Distribution

Digital Signage

# **HiDES** Easy HD Expressway!

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 ISDB-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	50-Ω IPEX connectors, with an IPEX to SMA cable
Bandwidth	DVB-T:1/ 2/3/4/5/6/7/8 MHz ISDB-T:6/7/8 MHz
FFT (伝送モード)	2K, 4K, 8K
Constellation (キャリア変調方式)	64QAM/16QAM/QPSK
Code rate (畳み込み符号)	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval (ガードインターバル比)	1/4, 1/8, 1/16 or 1/32

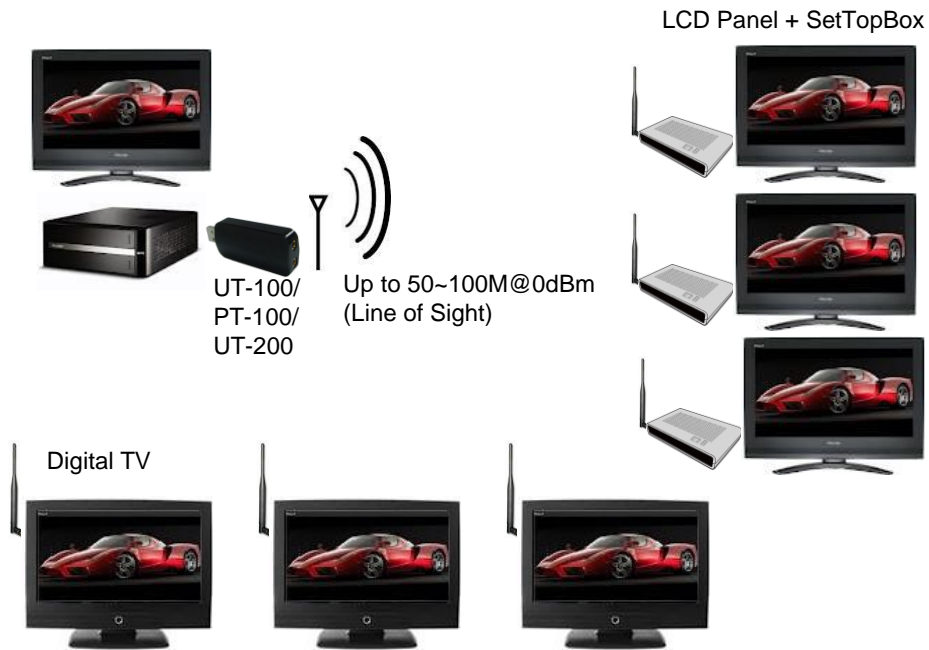
# HiDES Easy HD Expressway!

ISDB-T Time-interleaver (時間インターリーブ)	Not supported
ISDB-T Layer (階層数)	1-layer (13-seg) and 2-layer (12-seg +1-seg) 1-階層(13 セグメント) / 2-階層(12+1 セグメント)
ISDB-T Segment (周波数セグメント)	13 セグメント / 12+1セグメント
Frequency range	100 .. 2500MHz, tuning step 1KHz
RF Output Level	5 dBm (113 dBuV) @100-470 MHz 5 dBm (113 dBuV) @470-950 MHz 0 dBm (108 dBuV) @950-1900MHz -5 dBm (103 dBuV) @1900-2500MHz
Digital Attenuator	Range:+0/-47dB , Step size 1dB
MER	Typically, @-5 dB attenuation by ADRF6755 >39dB@V-band >39dB@470-950 MHz >36dB@950-1900MHz >34dB@1900-2500MHz
Spectrum Shoulder (Adjacent channel)	>48dB
Phase noise	<-114dBc @ 100kHz
Carrier Suppression	>42dB
Low Pass Filter	4 Bands: 1. 250MHz 2. 950MHz 3. 1400MHz 4. 2600MHz
USB port	USB 2.0 or USB 1.1
Power	5V DC (USB Bus Power) <b>560mA *</b>
Dimensions (LxW)	67x 35 mm (excluding USB connector)

Note: The power consumption is a little over USB bus power budget (500mA). Please make sure your USB port can support it well.

# HiDES Easy HD Expressway!

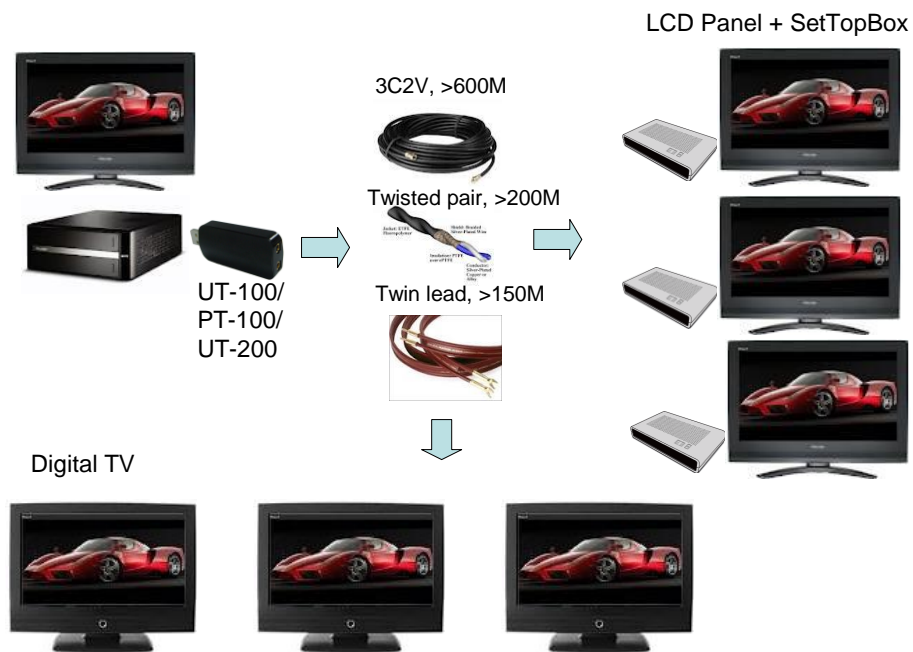
## Digital Signage Application Scenario-Wireless



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## Digital Signage Application Scenario-Wired

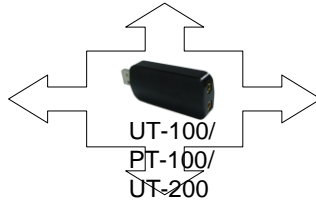


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# HiDES Easy HD Expressway!

Mini-headend full HD TV Broadcast System



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## Mini-headend Broadcast Solution



ATOM PC  
Or Tablet



UT-100/  
PT-100/  
UT-200



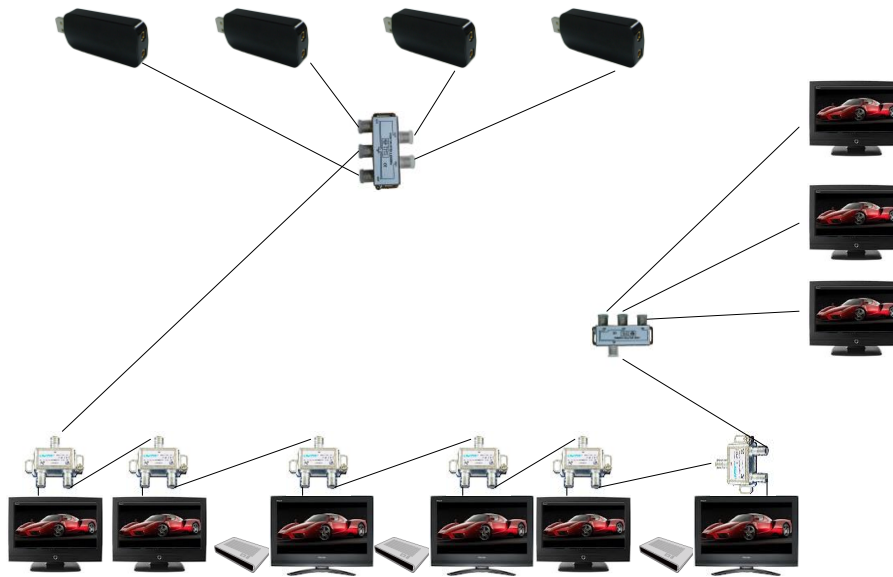
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# HiDES Easy HD Expressway!

System Deployment Example – Bus Topology

Up to 32~48 sets of UT-100/PT-100/UT-200



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