

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

- Configurable bandwidth 2MHz ~ 8 MHz.

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

- Standard Windows DVB-T BDA driver provided

- Windows Media Center compatible DVB-T TV tuner

UT-100 - Applications

- DVB-T signal generator

- Demonstrations

- Research and development

- Video Broadcast/Distribution

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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	2/3/4/5/6/7/8 MHz	
	Receiver	UT-100A	5/6/7/8MHz
		UT-100B	2/3/4 MHz
FFT	2K, 8K		
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 VHF 6M BW/UHF 6M BW: Channel: CH7~CH83		

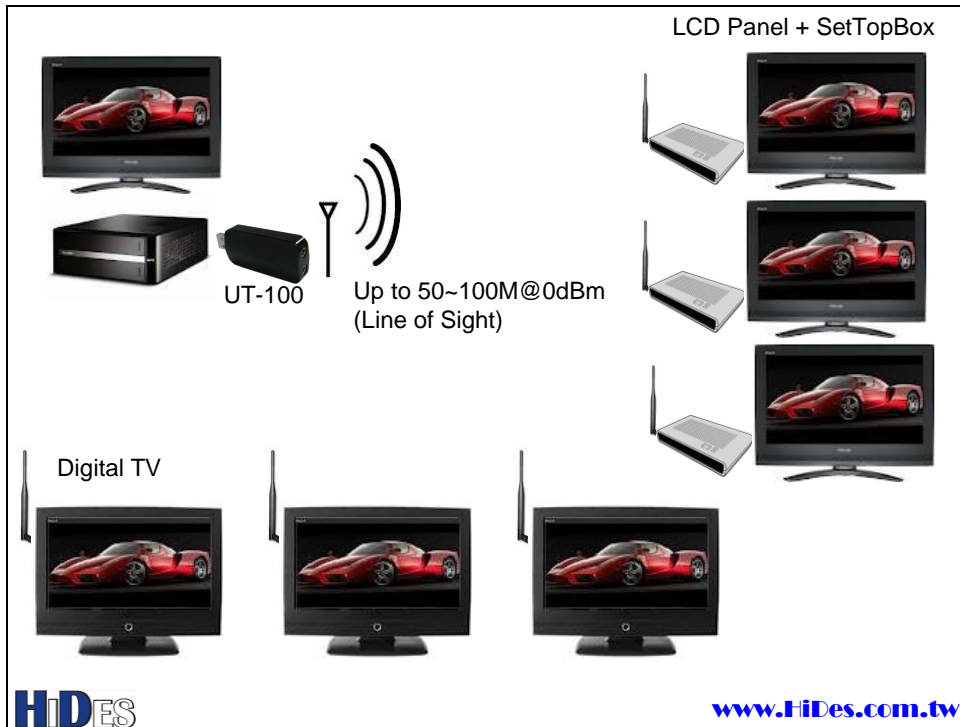
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	VHF 7M BW/UHF 7M BW: Channel: CH5~CH69 VHF 8M BW/UHF 8M BW: Channel: CH5~CH69
RF Output Level	0 dBm (108 dBuV)
Digital Attenuator	Range:+6/-25dB* , Step size 1dB
MER	35dB Typically
Spectrum Shoulder (Adjacent channel)	45dB
Phase noise	<-92dBc @ 10kHz
Carrier Suppression	>42dB
USB port	USB 2.0 or USB 1.1
Power	5V DC (USB Bus Power) 390mA (Tx and Rx) 170mA(Rx only) 340mA(Tx only)
Dimensions (LxWxH)	75x 30 x 15mm

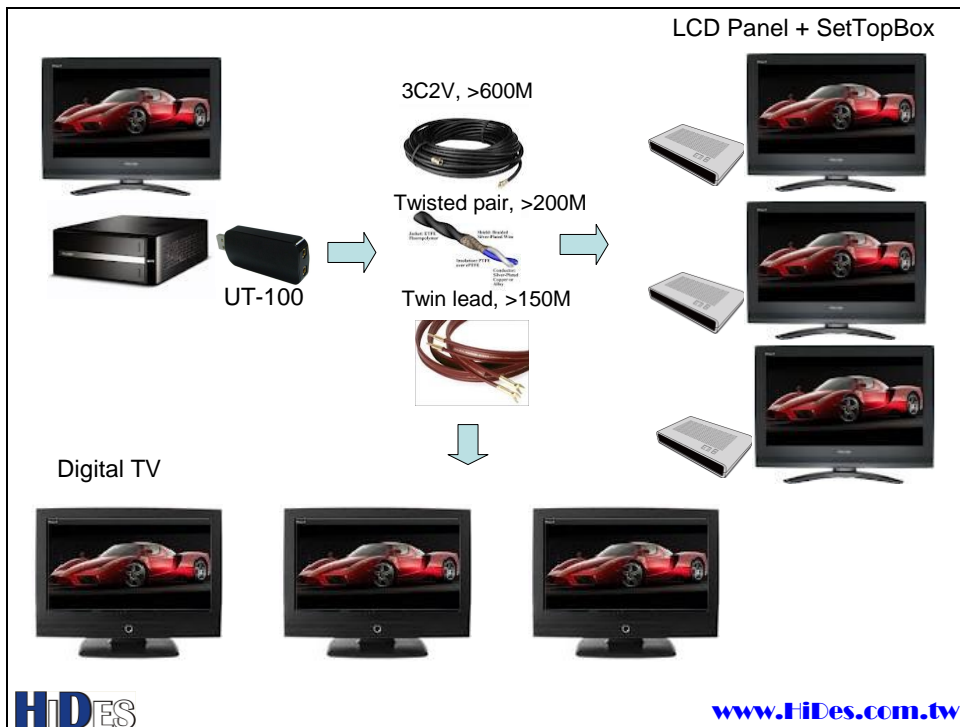
Note: There could be MER loss in high gain/attenuation level.

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Digital Signage Application Scenario-Wireless



Digital Signage Application Scenario-Wired



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Mini-headend full HD TV Broadcast System

UT-100

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Mini-headend Broadcast Solution

ATOM PC
Or Tablet

UT-100

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System Deployment Example – Bus Topology

