

HDMI/CVBS/YPbPr → DVB-T/DVB-C/ATSC/ISDB RF

--- Home Version



- ◆ MPEG2 and MPEG4 HD/SD video encode
- ◆ Dolby Digital AC3 (2.0) audio encode and passthrough
- ◆ USB record, playback and upgrade
- ◆ Low Delay

A device that allows audio and video signal input in TV distributions and video recorded and playback through a USB port, with applications in home entertainment, Digital Signage for hotels, shops, restaurants etc...

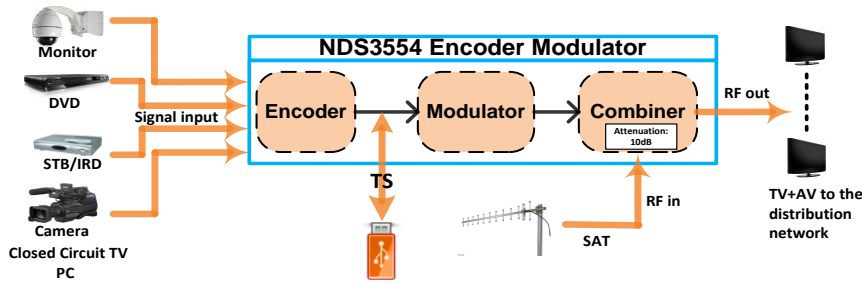
### Product Overview

NDS3554 series encoder & modulator is DEXIN's consumer electronics which allow audio/video signal input in TV distributions with applications in home entertainment, hotel Digital Signage, shops etc.

It is an all-in-one device integrating MPEG2 HD/SD and MPEG4 AVC H.264 HD/SD encoding and modulating to convert video/audio signals to digital RF out in the frequency range of 30~960MHz.

The signals source could be from satellite receivers, closed-circuit television cameras, Blue-ray players, and antenna etc. Its output signal is to be received by TVs or STBs etc.

## Principle Chart



## Technical Specifications

### Encoding Section

Interface	Video	Encoding	MPEG-2, MPEG-4 AVC/H.264
		Interface	HDMI*1
HDMI	Video	Resolution	1920*1080_60P, 1920*1080_50P → (for MPEG-4 AVC/H.264 only) 1920*1080_60i, 1920*1080_50i; 1280*720_60p, 1280*720_50P
		Bit rate	0.500~19.500 Mbps
		Audio	Encoding
YPbPr/ CVBS	Video	Interface	HDMI
		Sample rate	48KHz
		Bit rate	64, 96, 128, 192, 256, 320, 384 kbps
		Encoding	MPEG-2, MPEG-4 AVC/H.264
YPbPr/ CVBS	Video	Interface	CVBS *1, YPbPr*1
		Resolution	<b>CVBS:</b> 720x576_50i (PAL); 720x480_60i (NTSC) <b>YPbPr:</b> 1920*1080_60i, 1920*1080_50i; 1280*720_60p, 1280*720_50P
		Bit rate	0.500~19.500 Mbps
		Encoding	MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC; <b>DD AC3 2.0 (Optional)</b>
YPbPr/ CVBS	Audio	Interface	1 Stereo / 2 mono
		Sample rate	48KHz
		Bit rate	64, 96, 128, 192, 256, 320, 384 kbps

### DVB-T Modulator Section

Standard	DVB-T COFDM
Bandwidth	6M, 7M, 8M
Constellation	QPSK, 16QAM, 64QAM,
Code rate	1/2, 2/3, 3/4, 5/6, 7/8.
Guard Interval	1/32, 1/16, 1/8, 1/4
Transmission Mode:	2K, 8K
MER	≥42dB
RF frequency	30~960MHz, 1KHz step
RF output level	-16~ -36 dBm (71~91 dBμV), 0.1db step

### DVB-C Modulator Section (Option)

Standard	J.83A (DVB-C)	J.83B	J.83C
Constellation	16/32/64/128 /256 QAM	64/ 256 QAM	64/ 256 QAM
Bandwidth	8M	6M	6M
MER	≥43dB		
RF frequency	30~960MHz, 1KHz step		
RF level	-16~ -36dbm(71~91 dBμV), 0.1db step		
Symbol rate	5000-9000 Ksps		

### ATSC Modulator Section (Option)

Standard	ATSC A/53
MER	≥42dB
RF frequency	30~960MHz, 1KHz step
RF output level	-16~ -36 dBm (71~91 dBμV), 0.1db step
Constellation	8VSB

### ISDB-T Modulator Section (Option)

Standard	ARIB STD-B31
Bandwidth	6M
Constellation	DQPSK, QPSK, 16QAM, 64QAM
Guard Interval	1/32, 1/16, 1/8, 1/4
Transmission Mode	2K, 4K, 8K
MER	≥42dB
RF frequency	30~960MHz, 1KHz step
RF output level	-16~ -36 dBm (71~91 dBμV), 0.1db step

### System

Management	Local control: LCD + control buttons
Language	English
LCN Insertion	yes

### General

Power supply	DC 12V
Dimensions	144*238*52mm
Weight	Approx 1kg
Operation temperature	0~45°C

# USB Recorder & Player



## TS Recorder and Save:

- NDS3554 can encode the source video to \*.ts files and save them through the USB flash drive.
- Connect the signal source to NDS3554 and start encoding process.
- Start the record process and save the TS generated to the USB flash drive.

## \*.ts Video Creation Software:

- Users can also create \*.ts videos containing pictures, videos and music with our creator software on a PC and save them into the USB flash drive.
- Drag the files to "Creator" application. Formats supported include:  
Image: JPG, PNG, BMP, GIF  
Audio: MP3, WAV  
Video: WMV, MPG, MP4, TS, AVI...
- Start the conversion process to generate \*.ts videos



## TS Playback:

- Insert the USB flash drive with \*.ts videos in NDS3554 and play back the content in an easy way.
- A single video can be up to 2G in size and multi videos can be played on a loop.



USB Flash Drive Specifications Required:

- Standard: High Speed 2.0
- File System: FAT 32
- Memory: 32G is suggested



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# Typical Applications

**...for communities of residents**  
an information channel on their television



**...for restaurants**  
information about daily menus ,special deals,etc



**...for hotels**  
meeting rooms,exhibitions,message,etc



**...for hospitals**  
training courses, healthy guide, etc



**...for Public Spaces**  
advertising,user information,news,etc



**...for shopping centres**  
new collections,special deals,etc



**Create your own advertising and information channel using only your NDS3554 Encoder Modulator**

## Technical Compare

Main Features	DEXIN NDS3554/NDS3556	Competing Products
Encode	<ul style="list-style-type: none"> <li>MPEG2 HD/SD; MPEG4 HD/SD</li> </ul>	<ul style="list-style-type: none"> <li>MPEG2 SD</li> </ul>
Record TS to USB memory	<ul style="list-style-type: none"> <li>Yes (NDS3554&amp;NDS3556)</li> </ul>	<ul style="list-style-type: none"> <li>No</li> </ul>
*.ts files play-mode	<ul style="list-style-type: none"> <li>Both Multi/Single files loop</li> <li>Support HD&amp;SD video play</li> </ul>	<ul style="list-style-type: none"> <li>Single file loop</li> <li>Support only SD video play</li> </ul>
TS Creator.exe	<ul style="list-style-type: none"> <li>HD video to HD video transform</li> <li>Null Packet Filter, effect bitrate up to 90%</li> <li>Support output video size, rate, and format control</li> </ul>	<ul style="list-style-type: none"> <li>HD video to SD video downscale</li> <li>No Null Packet Filter, effect bit rate only around 50%</li> </ul>
Single video length	<ul style="list-style-type: none"> <li>2-3 Hours HD/SD</li> </ul>	<ul style="list-style-type: none"> <li>40 Minutes SD</li> </ul>
Low Delay	<ul style="list-style-type: none"> <li>Supported</li> </ul>	<ul style="list-style-type: none"> <li>Not supported</li> </ul>
DD AC3 (2.0) audio encode	<ul style="list-style-type: none"> <li>Supported</li> </ul>	<ul style="list-style-type: none"> <li>Not supported</li> </ul>



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