NDS3542

2*HDMI ⟹ 2*DVB-T

Encoder Modulator

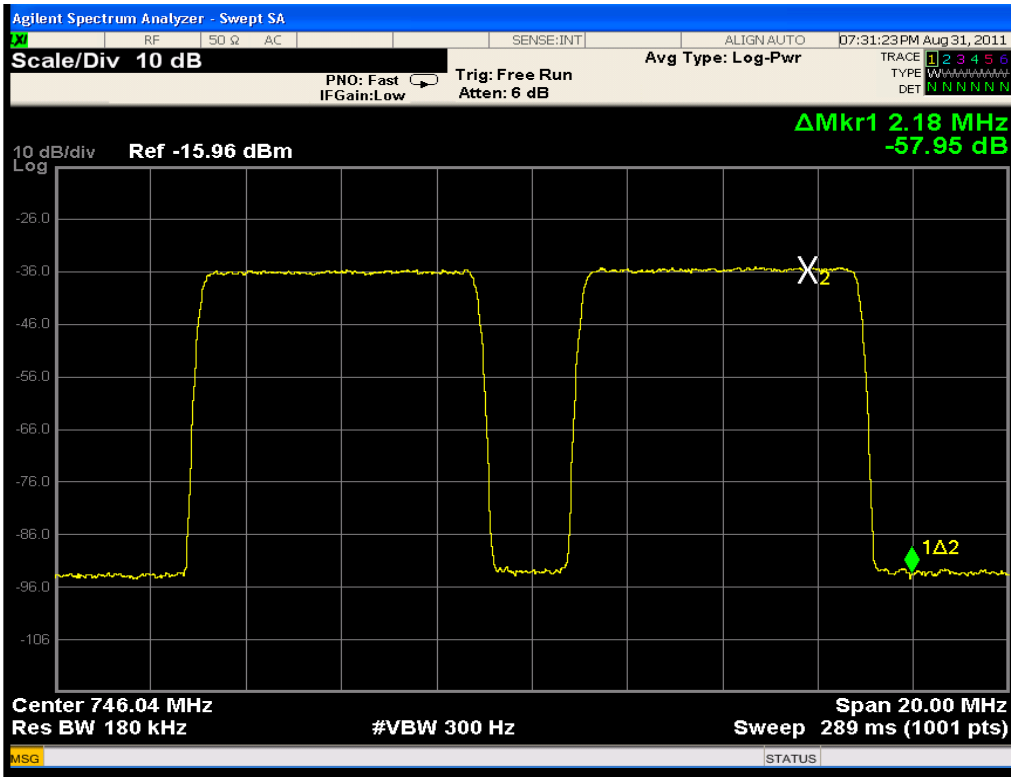
Key Features

- Up to 1920*1080@50I/60I supported
- MPEG2 HD/MPEG4 HD video encoding
- 2* HDMI in (2 for backup), 1*ASI in
- 2*RF DVB-T out (2 carriers combined output), double output bandwidth
- Simultaneously encoding each channel more than 18Mbps
- LCN support (Logical Channel Number)
- Excellent modulation quality MER≥42dB
- RF Frequency range 30Mhz~960Mhz
- LCD display, Remote control and firmware
- Updates via web/Ethernet
- Lowest cost per channel --- breakthrough price

RF Output: 2*RF DVB-T Out (2 Carriers Combined Output)

Double Output Bandwidth

Simultaneously encoding each channel more than 18Mbps



Shoulder Level

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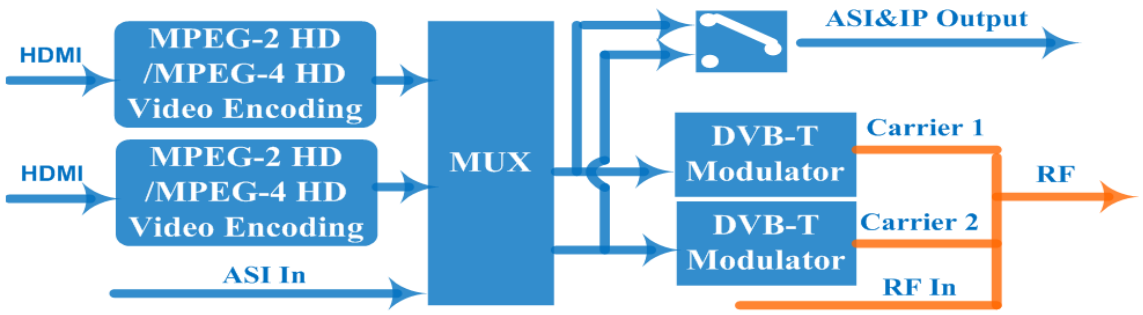
Principle Chart



Product Overview

NDS3542 is DEXIN's newly developed Encoder & Modulator which integrates MPEG2 HD/MPEG4 HD video encoding and DVB-T (DVB-C/ISDB-T/ATSC Optional) modulation to convert HD A/V signals to DVB-T RF out in the frequency range of 30~960MHz. It has equipped with 2 channels of HDMI input, 1 ASI input, and output with 2 ASI ports, 1 UDP IP port, and 1 RF port with dual DVB-T carriers.

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 DVB-T standard TV sets, DVB-T STBs and etc.

The device can be wildly used in public places such as metro, market hall, theatre, hotel, resort, etc for advertising. It also can be used for monitoring, training and educating in company, schools, campuses, hospital… besides that it's a good choice for bars to offer HD sports channels, for VIP entertainment channels, and more.

Specifications

Encoding section

Video

Encoding	MPEG2 HD/MPEG4 HD
Input	HDMI*2 (2 for backup)
Resolution	1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P

Audio

encoding	MPEG1 Layer II, MPEG2-AAC, MPEG4-AAC
Sample rate	48KHz
Bit rate	64kbps, 96kbps,128kbps, 192kbps, 256kbps, 320kbps

DVB-T modulator section

Standard	EN300744
FFT mode	2K, 8K
Bandwidth	6M, 7M, 8M
Constellation	QPSK, 16QAM, 64QAM
Guard Interval	1/4, 1/8, 1/16, 1/32
FEC	1/2, 2/3, 3/4, 5/6, 7/8
MER	≥42dB
RF frequency	30~960MHz, 1KHz step
RF out	2*RF COFDM DVB-T out (2 carriers combined output); Double output bandwidth
RF output level	-30~ -10dbm (81~97 dbμV), 0.1db step

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System

Local interface	LCD + control buttons
Remote management	Web NMS
output	ASI out (BNC type); IP out (RJ45, 100M)
NMS interface	RJ45, 100M
Language	English

General

Power supply	AC 100V~240V
Dimensions	482*300*44mm
Weight	4.5 kgs
Operation temperature	0~45℃

Why do we need 2 x DVB-T carrier output in one device?

Firstly, it is to guarantee the sound picture quality of HD programs.

As we all know, to guarantee the picture quality of 1920x1080@50I/60I resolution HD program, the video bit-rate may exceed 15Mbps, even up to 16-18Mbps. However, the maximum possible bit-rate output for single DVB-T carrier is only around 30Mbps.

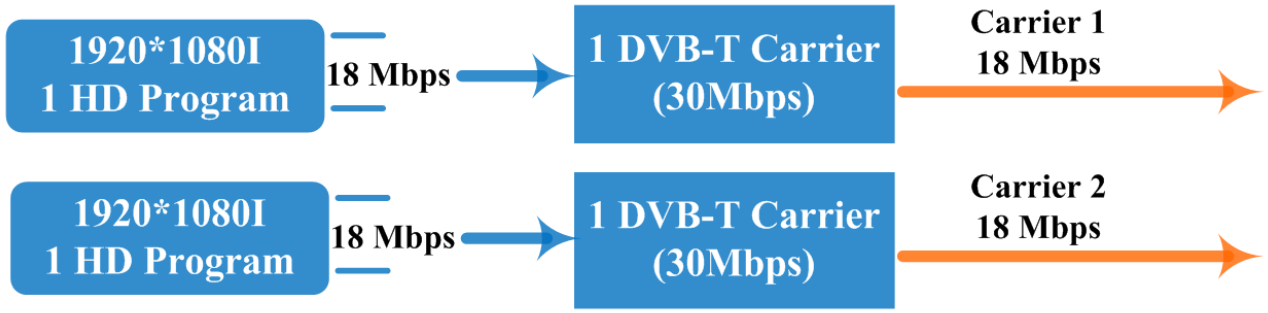
18Mbps x2 =36Mbps > 30Mbps.

It means the single DVB-T carrier simply can't carry the 2 channels 1080i HD program if the average bit-rate exceeds 15Mbps.

That's why we design 2*DVB-T carrier modulation board which double the maximum possible bit-rate bandwidth up to 60Mbps, which rightly makes it reliably carry 2 channel HD programs output simultaneously.

Below brief chart will help to more clearly illustrate the working principle.

Typical Application



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Secondly, it is cost-saving.

Its high integration allows users to transmit more programs with fewer devices. It undoubtedly saves the cost for you and me.

Ordering guideline

Our encoder & modulator series are individual-module design, and the encoding modules include:

- ✓ MPEG2 SD super encoding with 2 CVBS in
- ✓ MPEG2 encoding with 1CVBS in
- ✓ MPEG4 AVC H.264 encoding with 1 or dual SDI in
- ✓ DVB-S2 tuner input
- ✓ YPbPr +HDMI +CVBS input
- ✓ MPEG4 AVC/H.264 encoding with One or dual HDMI input

Modulation modules include:

- ✓ ISDB-T RF out module
- ✓ DVB-C RF out module
- ✓ ATSC RF out module
- ✓ DVB-T RF out module

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