

NDS3542

4*HDMI ➡ DVB-C

Encoder Modulator



Key Features

- Up to 1920*1080@50I/60I supported
- MPEG2 HD/MPEG4 HD video encoding
- 4* HDMI in, 1*ASI in
- 2*RF DVB-C out (2 carriers combined output) available, double output bandwidth available
- Simultaneously encoding each channel more than 10Mbps
- 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

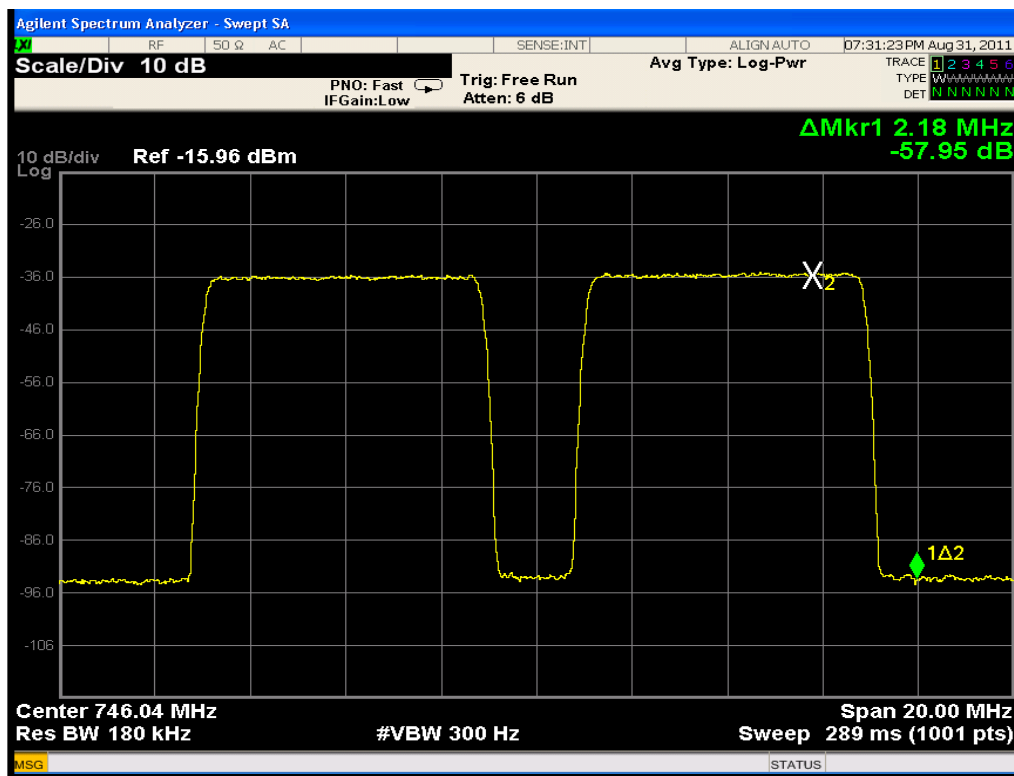


RF Output: 2*RF DVB-C Out (2 Carriers Combined Output)

Double Output Bandwidth



Simultaneously encoding each channel more than 10Mbps



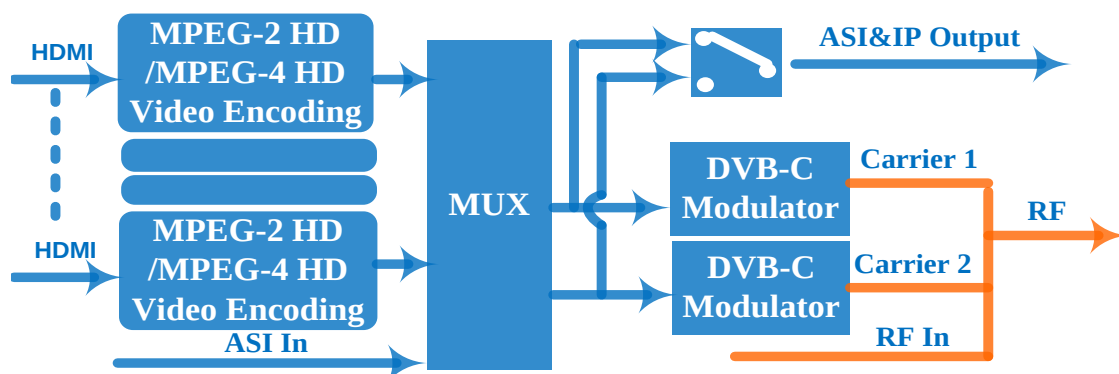
Shoulder Level

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Principle Chart



Product Overview

NDS3542 series products are one branch of DEXIN's knock-out all-in-one devices which integrate tuning (DVB-S/S2, ISDB-T) or encoding (MPEG-2, MPEG-4/AVC H.264) and modulation (DVB-C, DVB-T/T2, ISDB-T, or ATSC) to convert V/A signals into RF output. This sheet is going to introduce a 1U rack model which integrates MPEG-2 HD/MPEG-4 HD video encoding and DVB-C modulation to convert HD A/V signals to DVB-C RF out in the frequency range of 30~960MHz.

It adopts inner drawer-type structural design which greatly facilitates the change of encoding modules (HDMI/CVBS/SDI/YPbPr/...) as needed. To meet customers' various requirements, NDS3542 is also equipped with 1 ASI input, and output with 2 ASI ports and 1 UDP IP port.

The signals source could be from satellite receivers, closed-circuit television cameras, Blue-ray players, and antenna etc. Its output signals are to be received by TVs, STB and etc with corresponding standard.

With its various inputs available, our NDS3542 series products are wildly used in public places such as metro, market hall, theatre, hotels, resorts, and etc for advertising, monitoring, training and educating in company, schools, campuses, hospital... It's a good choice to offer HD channels and more.

Specifications

Encoding section

Video

Encoding	MPEG2 HD/MPEG4 HD
Input	HDMI*4
Resolution	1920*1080_60i, 1920*1080_50i, 1280*720_60p, 1280*720_50P

Audio

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

DVB-C Modulator Section

Standard	J.83A , J.83B, J.83C
MER	≥42dB

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RF frequency	30~960MHz, 1KHz step
RF output level	-30~ -10dbm(81~97 dbμV), 0.1db step
J.83A	
Constellation	16/32/64/128/256QAM
Symbol rate	5.000~9.000Msps adjustable
bandwidth	8M
J.83B	
Constellation	64QAM/ 256QAM
bandwidth	6M
J.83C	
Constellation	64QAM/ 256QAM
bandwidth	6M

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	420*400*44mm
Weight	4.5 kgs
Operation temperature	0~45℃

Why do we need 2 x DVB-C 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 reach up to 15Mbps. However, the maximum possible bit-rate output for single DVB-C carrier is only around 50Mbps.

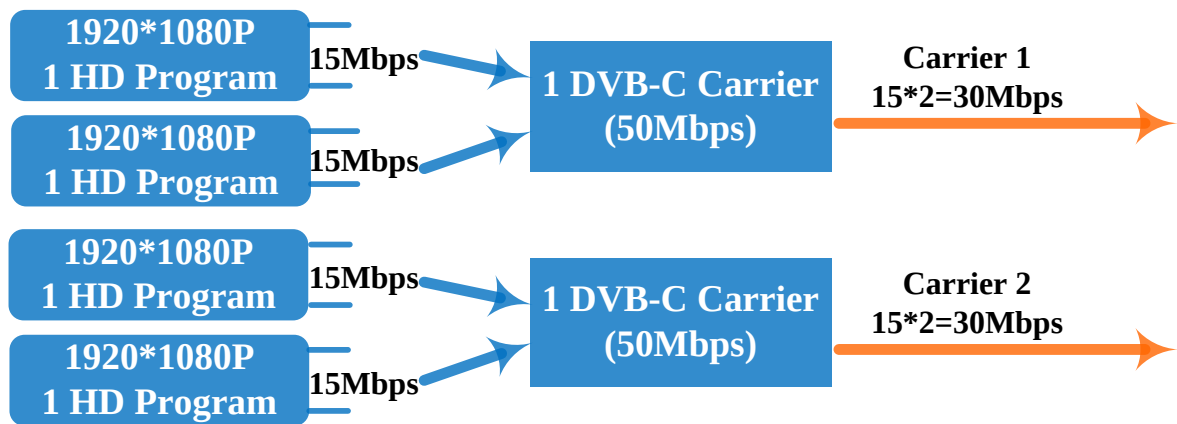
$15\text{Mbps} \times 4 = 60\text{Mbps} > 50\text{Mbps}$.

It means the single DVB-C carrier simply can't carry the 4 channels 1080i HD program if the average bit-rate exceeds 15Mbps.

That's why we design 2*DVB-C carrier modulation board which double the maximum possible bit-rate bandwidth up to 100Mbps, which rightly makes it reliably carry 4 channel HD programs output simultaneously.

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

Typical Application



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.

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
- ✓ MPEG2 HD encoding with one or dual HDMI input

Modulation modules include:

- ✓ ISDB-T RF out module
- ✓ DVB-C RF out module
- ✓ ATSC RF (single/dual/quad carriers) out module
- ✓ DVB-T RF (single carrier/dual carriers) out module