



NDS3542HB

Encoder Modulator

8/12/16/24\* CVBS/1 Tuner → 4\* DVB-C/T Digital RF



## OSD (Logo/Caption/QR Code) Insertion



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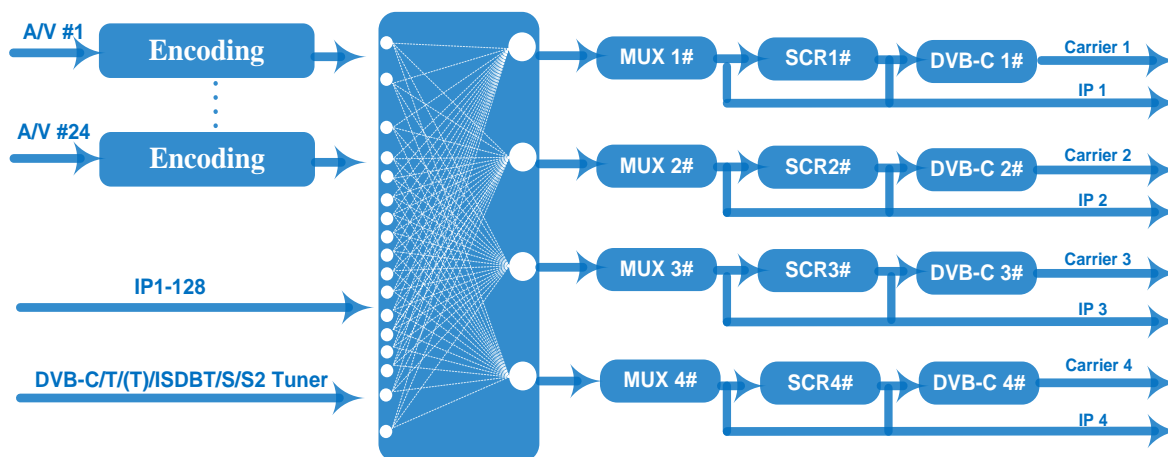
## Product Overview

NDS3542HB SD encoder modulator is a professional high integration device which includes encoding, multiplexing, scrambling and modulation. It supports 8/12/16/24 CVBS inputs, one tuner input and 128 IP input through Data1 (GE) and Data2 (FE) port. It also supports 4 DVB-C/T RF out and 4 MPTS out. This full function device makes it ideal for small CATV head end system, and it's a smart choice for hotel TV system, entertainment system in sports bar, hospital, apartment...

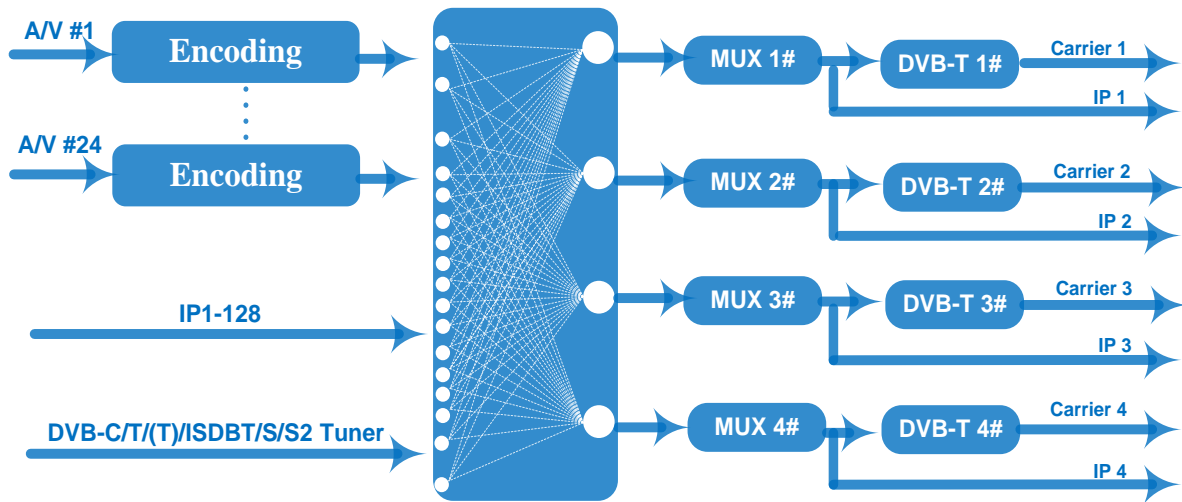
## Key features

- 8/12/16/24 A/V inputs with MPEG-2, MPEG4 AVC/H.264 video encoding
- 1 DVB-C/T/(T)/ISDBT/S/S2 (Optional) tuner input for re-mux
- 128 IP input (Data1&Data2) over UDP and RTP protocol
- Support MPEG1 Layer 2, LC-AAC, HE-AAC audio encoding
- Support 4 MPTS IP (DATA1 port only) output over UDP and RTP protocol
- 4 DVB-C or 4 DVB-T RF out
- Support PID remapping/ accurate PCR adjusting/PSI/SI editing and inserting
- Support Logo, QR code, Caption insertion
- Control via web management, and easy updates via web

## Principle Chart



## DVB-C RF output


**DVB-T RF output**
**Technical specification**

|   |  |  |   |
|---|--|--|---|
| <b>Input</b>                                      | 8/12/16/24 CVBS inputs , RCA interface ,<br>1 DVB-C/T(T)/ISDBT/S/S2 (Optional) Tuner for re-mux, F type interface<br>128 IP input over UDP and RTP through DATA1 and DATA2, RJ45 |  |   |
| <b>Video</b>                                      | Resolution   | 720*576@50i  | 720*576/352*288/320*240/320*180/<br>176*144/160*120/160*90@50Hz |
|   |  | 720*480@60i  | 720*480/352*288/320*240/320*180/<br>176*144/160*120/160*90@60Hz |
|   | Encoding format  | MPEG-2, MPEG4 AVC/H.264  |   |
|   | Bit-rate   | 0.5~5Mbps  |   |
|   | Rate Control   | CBR/VBR  |   |
| <b>Audio</b>                                      | Encoding format  | MPEG1 Layer 2, LC-AAC, HE-AAC                                  |   |
|   | Sampling rate  | 48KHz  |   |
|   | Bits per sample  | 32-bit   |   |
|   | Bit-rate   | 48Kbps~384Kbps (each channel)                                  |   |
| <b>Multiplexing</b>                               | Maximum PID Remapping  | 128 PID input per channel                                      |   |
|   | Function   | PID remapping ( automatically or manually)                     |   |
|   |  | Accurate PCR adjusting<br>Generate PSI/ SI table automatically |   |
| <b>Scrambling<br/>(Only for<br/>DVB-C RF out)</b> | Maximum simulcrypt CA  | 4  |   |
|   | Standard   | EN300 429/ITU-T J.83A/B  |   |
|   | Connection   | Local/remote connection  |   |

|                        |   |  |   |            |  |
|------------------------|---|--|---|------------|--|
| <b>Modulation</b>      | DVB-C   | RF out                                       | 4*RF DVB-C out (4 carriers combined output) |            |  |
|                        |   | Standard                                     | EN300 429/ITU-T J.83A/B                     |            |  |
|                        |   | MER  | ≥40dB                                       |            |  |
|                        |   | RF frequency                                 | 50~960MHz, 1KHz step                        |            |  |
|                        |   | RF output level                              | -25~-1dBm, 1dBm step                        |            |  |
|                        |   | Symbol Rate                                  | 5.0Msps~7.0Msps, 1ksps step                 |            |  |
|                        |   | Constellation                                | 16/32/64/128/256QAM                         |            |  |
|                        |   | Constellation                                | J.83A                                       | J.83B      |  |
|                        |   |  | 16/32/64/128/256QAM                         | 64/256 QAM |  |
|                        | Bandwidth   | 8M   | 6M  |            |  |
|                        | DVB-T   | RF out                                       | 4*RF DVB-T out (4 carriers combined output) |            |  |
|                        |   | Standard                                     | EN300744                                    |            |  |
|                        |   | MER  | ≥42 dB                                      |            |  |
|                        |   | RF frequency                                 | 50~960MHz, 1KHz step                        |            |  |
|                        |   | RF output level                              | -28~ -3 dBm, 0.1dBm step                    |            |  |
|                        |   | FFT mode                                     | 2K,   |            |  |
|                        |   | Constellation                                | QPSK, 16QAM, 64QAM                          |            |  |
|                        |   | Bandwidth                                    | 6M, 7M, 8M                                  |            |  |
|                        |   | Guard Interval                               | 1/4, 1/8, 1/16, 1/32                        |            |  |
| FEC                    |   | 1/2, 2/3, 3/4, 5/6, 7/8                      |   |            |  |
| <b>Stream output</b>   | RF output (F type interface)  |  |   |            |  |
|                        | 4 IP MPTS output over UDP/RTP through Data1 (1000M Base-T Ethernet interface) |  |   |            |  |
| <b>System function</b> | Network management (WEB)  |  |   |            |  |
|                        | Ethernet software upgrade   |  |   |            |  |
| <b>Miscellaneous</b>   | Dimension (W×L×H)   | 482mm×410mm×44mm                             |   |            |  |
|                        | Approx weight   | 8kg  |   |            |  |
|                        | Environment   | 0~45°C(work); -20~80°C (Storage)             |   |            |  |
|                        | Power requirements  | AC 110V± 10%, 50/60Hz, AC 220 ± 10%, 50/60Hz |   |            |  |

## Order Information

|                     | NDS3542HB-8<br>(DVB-C RF out) | NDS3542B-8<br>(DVB-T RF out) | NDS3542HB-12<br>(DVB-C RF out) | NDS3542HB-12<br>(DVB-T RF out) | NDS3542HB-24<br>(DVB-C RF out) | NDS3542HB-24<br>(DVB-T RF out) |
|---------------------|-------------------------------|------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 8 CVBS Input        | √                             | √                            |                                |                                |                                |                                |
| 12 CVBS Input       |                               |                              | √                              | √                              |                                |                                |
| 24 CVBS Input       |                               |                              |                                |                                | √                              | √                              |
| Scrambling function | √                             |                              | √                              |                                | √                              |                                |