



**NDS3542D**

**Multi-input Modulator**



## Outline

NDS3542D multi-input modulator is DEXIN's all-in-one device which integrates demodulation, trans-mux and modulation in one case to convert signals into RF output. It is a 1-U case which supports 4 tuner inputs to receive signal from satellite, cable or terrestrial. To meet customers' various requirements, NDS3542D is also equipped with 2 ASI input, and output with 2 groups separate ASI ports and IP port. The output modulated signals are to be received by TVs, STB and etc.

The USB port is designed to record encoded video (TS) and save it in ts files in the USB Keys or Hard Disks, and then the ts files can be playback through the USB port.

The four CAMs/CIs (Optional) accompanied and BISS modules can descramble the programs input from 4 Tuner inputs. Its pluggable structure design greatly facilitates the change of modules (demodulator) as needed.

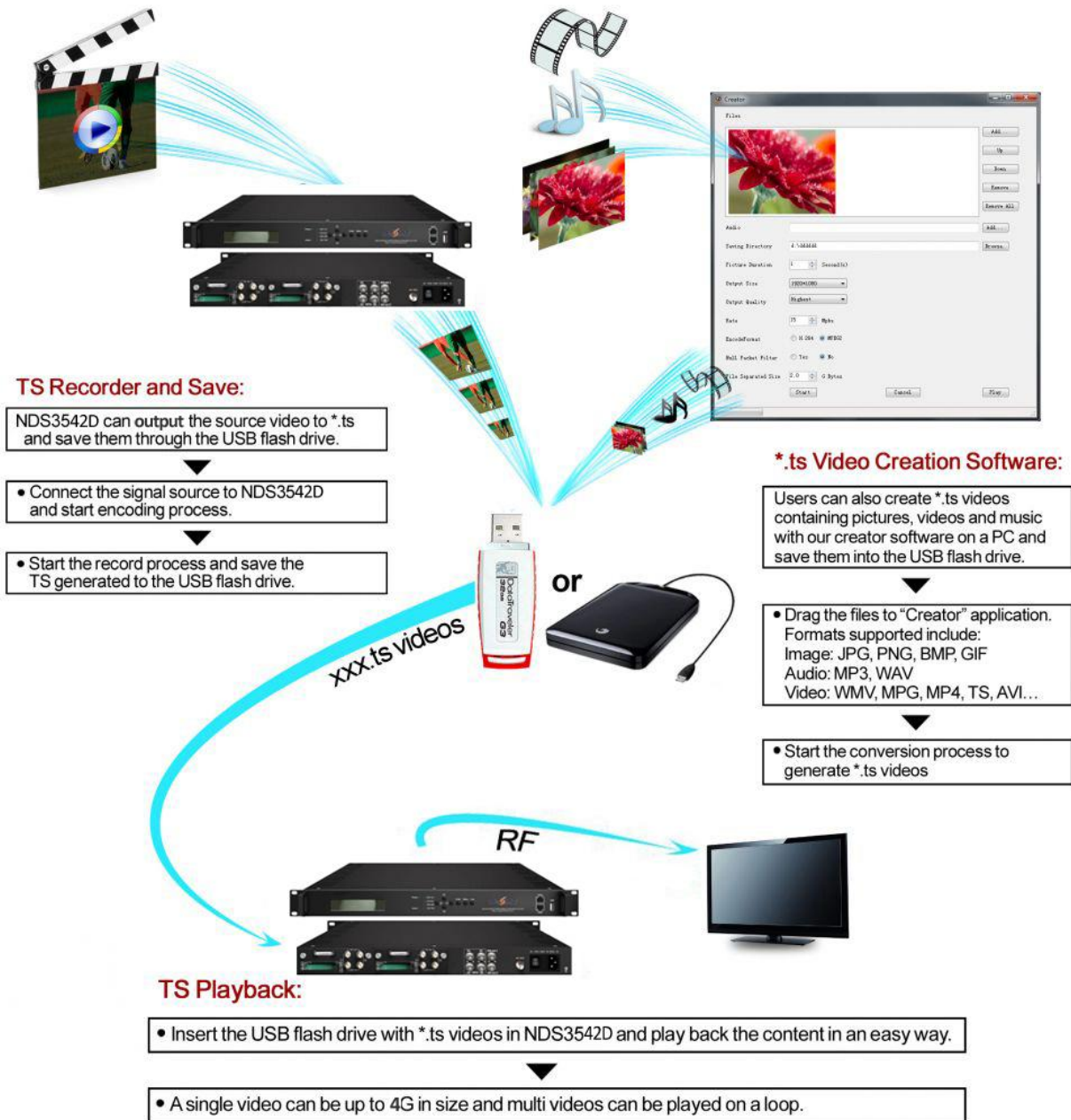


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# USB Recorder & Player



USB Flash Drive Specifications Required: High Speed 2.0; File System FAT32

## Key Features

- 4 Tuner (DVB-T/(T)/S/S2/S2X optional) + 2 ASI input
- 2 DVB-T RF out+2 MPTS out over UDP+2 ASI out as mirror of 2 RF (for DVB-T RF out)
- 4 DVB-C RF out +4 MPTS out over UDP+2 ASI out as mirror of 2 RF (for DVB-C RF out)

---version I



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- 4 DVB-C RF out +8 SPTS out over UDP+2 ASI out as mirror of 2 RF (for DVB-C RF out)  
---version II
- 4 CAM decrypt multiple programs from 4 Tuner input(Optional)
- Support BISS descrambling
- Record encoded TS and playback TS files (\*.ts) through USB port
- Support accurate PCR adjusting, PSI/SI editing and inserting, PID Remapping
- Support LCD display, keyboard and Web management, Updates via web and USB

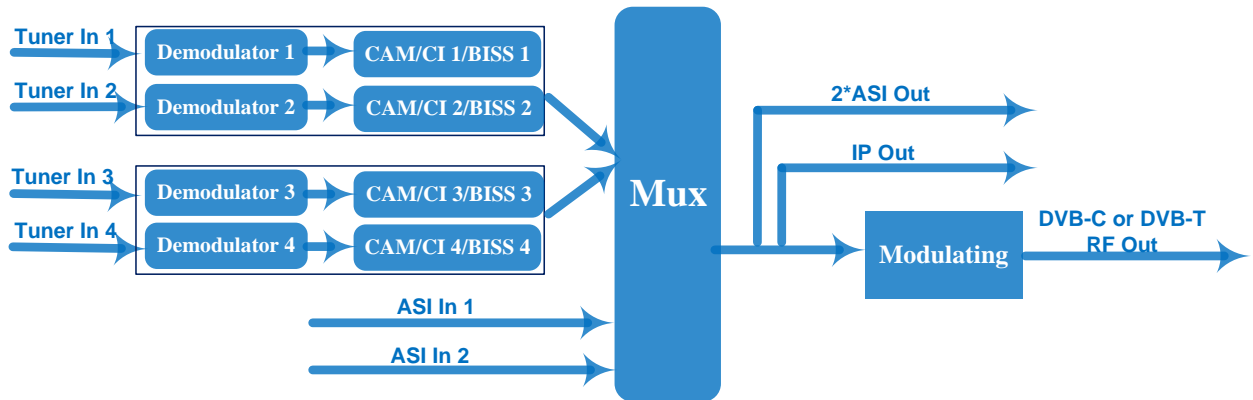
## Specifications

| Input             | 4 Tuner (DVB-T/(T)/S/S2/S2X optional) and 2 ASI input |                                |                 |   |
|-------------------|---|--------------------------------|-----------------|---|
| Tuner Section     | DVB-T/(T)   | Input Frequency                | 30~1000MHz      |   |
|                   |   | Bandwidth                      | 6/7/8M          |   |
|                   | Version 1   | DVB-S                          | Input Frequency | 950~2150MHz   |
|                   |   |                                | Symbol rate     | 1~45 Msps   |
|                   |   |                                | Signal Strength | -65~-25dBm  |
|                   |   |                                | FEC             | 1/2, 2/3, 3/4, 5/6, 7/8   |
|                   |   |                                | Constellation   | QPSK  |
|                   |   | Max input bitrate              | ≤120 Mbps       |   |
|                   |   | DVB-S2                         | Input Frequency | 950~2150MHz   |
|                   |   |                                | Symbol rate     | QPSK 1~45 Msps<br>8PSK 2~30 Msps  |
|                   |   |                                | FEC             | 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10   |
|                   |   |                                | Constellation   | QPSK, 8PSK  |
|                   | Max input bitrate                                     |                                | ≤120 Mbps       |   |
|                   | Version 2<br>(New)                                    | DVB-S                          | Input Frequency | 950~2150MHz   |
|                   |   |                                | Symbol rate     | 0.5~45Msps  |
|                   |   |                                | Signal Strength | - 65- -25dBm  |
|                   |   |                                | FEC             | 1/2, 2/3, 3/4, 5/6, 7/8   |
|                   |   |                                | Constellation   | QPSK  |
|                   |   | Max input bitrate              | ≤160 Mbps       |   |
|                   |   | DVB-S2                         | Input Frequency | 950~2150MHz   |
|                   |   |                                | Symbol rate     | QPSK/8PSK /16APSK: 0.5~45 Msps<br>32APSK: 0.5~40Msps;   |
|                   |   |                                | FEC             | QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10<br>8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10<br>16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10<br>32APSK: 3/4, 4/5, 5/6, 8/9, 9/10 |
|                   |   |                                | Constellation   | QPSK, 8PSK, 16APSK, 32APSK  |
| Max input bitrate |   |                                | ≤160 Mbps       |   |
| DVB-S2X           | Input Frequency                                       | 950~2150MHz                    |                 |   |
|                   | Symbol rate   | QPSK/8PSK /16APSK :0.5~45 Msps |                 |   |

|                     |   |   |                                  |  |               |
|---------------------|---|---|----------------------------------|--|---------------|
|                     |   |   |                                  | 8APSK/32APSK: 0.5~40Msps   |               |
|                     |   |   | FEC                              | QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 13/45, 9/20, 11/20<br>8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10<br>8APSK: 5/9-L, 26/45-L<br>16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10, 1/2-L, 8/15-L, 5/9-L, 26/45, 3/5, 3/5-L, 28/45, 23/36, 2/3-L, 25/36, 13/18, 7/9, 77/90<br>32APSK: 3/4, 4/5, 5/6, 8/9, 2/3-L, 32/45, 11/15, 7/9 |               |
|                     |   |   | Constellation                    | QPSK, 8PSK, 8APSK, 16APSK, 32APSK  |               |
|                     |   |   | Max input bitrate                | ≤160 Mbps  |               |
| <b>Multiplexing</b> | Maximum PID Remapping   | 128per input channel                      |                                  |  |               |
|                     | Function  | PID remapping (automatically or manually) |                                  |  |               |
|                     |   | Accurate PCR adjusting                    |                                  |  |               |
|                     |   | Generate PSI/SI table automatically       |                                  |  |               |
| <b>Modulation</b>   | DVB-C   | Standard                                  | J.83A(DVB-C), J.83B, J.83C       |  |               |
|                     |   | MER                                       | ≥40dB                            |  |               |
|                     |   | RF frequency                              | 30~999MHz, 1KHz step             |  |               |
|                     |   | RF output level                           | -20~0dbm(87~107 dbμV),0.1db step |  |               |
|                     |   | Symbol rate                               | 5.0Msps-9.0Msps, 1ksps stepping  |  |               |
|                     |   | RF Out                                    | 4*DVB-C carriers output          |  |               |
|                     |   |   | J.83A                            | J.83B  | J.83C         |
|                     |   | Constellation                             | 16/32/64/128/<br>256QAM          | 64/256<br>QAM  | 64/256<br>QAM |
|                     |   | Bandwidth                                 | 8M                               | 6M   | 6M            |
|                     | DVB-T   | 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                                       | ≥40dB                            |  |               |
|                     |   | RF frequency                              | 30~999MHz, 1KHz step             |  |               |
| RF Out              |   | 2*DVB-T carriers output                   |                                  |  |               |
| RF output level     | -20~0dbm(87~107 dbμV),0.1db step                                    |   |                                  |  |               |
| <b>TS Output</b>    | 2 ASI out as mirror of 2 RF carriers (BNC type)                     |   |                                  |  |               |
|                     | 2 MPTS over UDP out (RJ45, 1000M) (for DVB-T RF out)                |   |                                  |  |               |
|                     | 4 MPTS over UDP out (RJ45, 1000M) (for DVB-C RF out) ---version I   |   |                                  |  |               |
|                     | 8 SPTS over UDP out (RJ45, 1000M) (for DVB-C RF out) --- version II |   |                                  |  |               |
| <b>System</b>       | Local interface   | LCD + control buttons                     |                                  |  |               |
|                     | Remote management   | Web NMS                                   |                                  |  |               |
|                     | Language  | English and Chinese                       |                                  |  |               |
|                     | Upgrading   | Web and USB                               |                                  |  |               |
| <b>General</b>      | Dimension   | 482mm×300mm×44.5mm(W*D*H)                 |                                  |  |               |

|             |   |
|-------------|---|
| Weight      | 3.7kg                                   |
| Temperature | 0~45°C (Operation) ; -20~80°C (Storage) |
| Power       | AC 100V±10%/60Hz; AC 220V±10%, 50/60HZ  |
| Consumption | 25W                                     |

## Working Principle



Updated Date: 8 May, 2019