

The logo for DESIING, featuring the brand name in a stylized blue font with an orange graphic element resembling a signal or a stylized 'S'.

**NDS356xH**

**HD IRD**

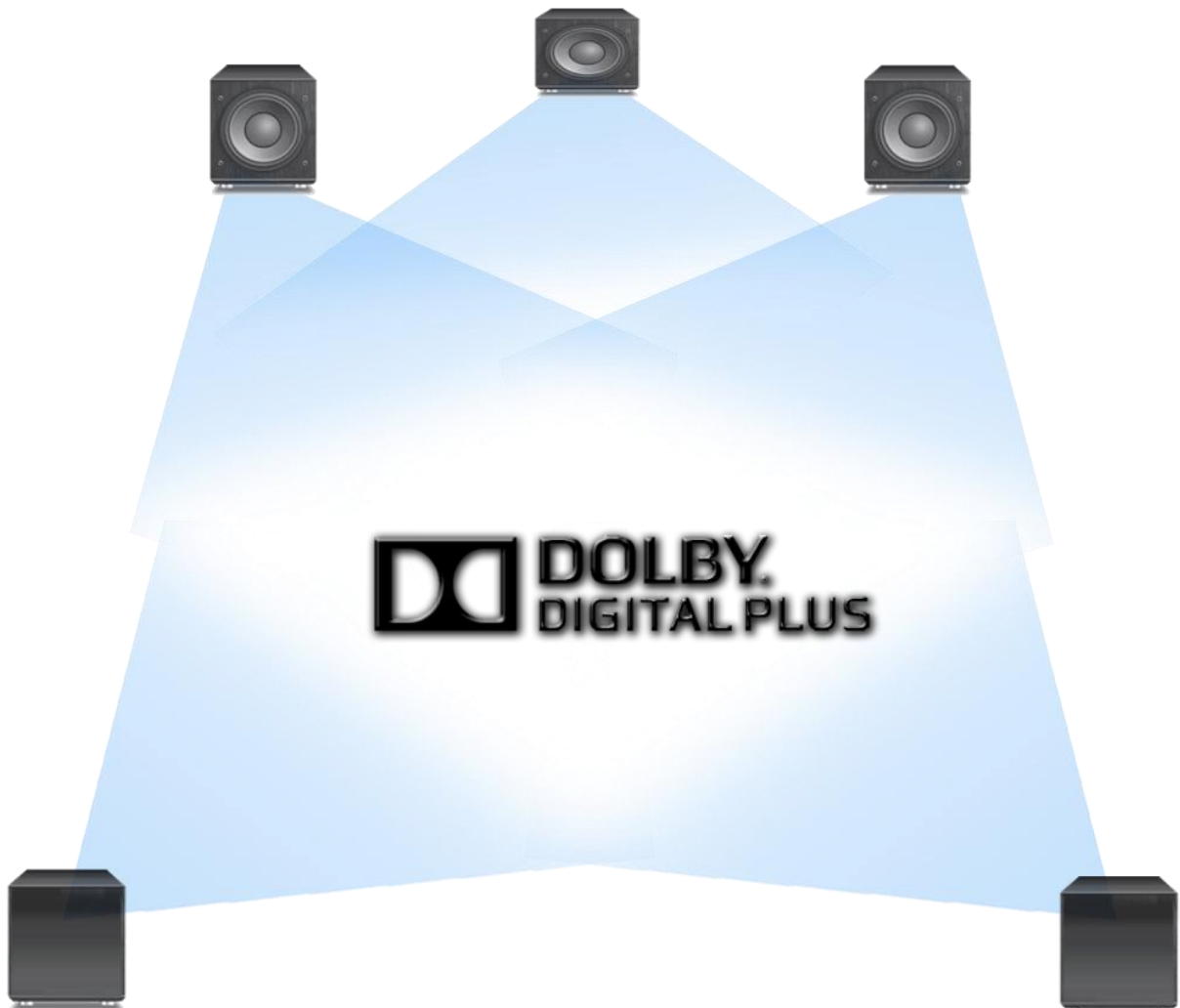


**Dolby Digital/Dolby Digital Plus(5.1) audio decoding**

**2 stereo/4 mono audio output**

**CAM/CI, BISS descrambling**

**Support CC and Subtitle**



## Product Introduction

NDS356xH HD IRD is DEXIN's all-in-one device which integrates demodulation, de-scrambler, re-mux and decoding in one case to convert RF signals into audio/video (CVBS /YpbPr /HDMI /SDI) output.

It is a 1-U case which supports 2 tuner inputs to receive signal from satellite, cable or terrestrial devices. The two CAMs/CIs accompanied and BISS modules can descramble the programs input from encrypted RF, ASI and IP.

Its pluggable structure design greatly facilitates the change of modules (demodulator or decoder) as needed.

To meet customers' various requirements, NDS356xH is also equipped with ASI and IP input for re-mux, and output with 2 ASI ports and IP port.

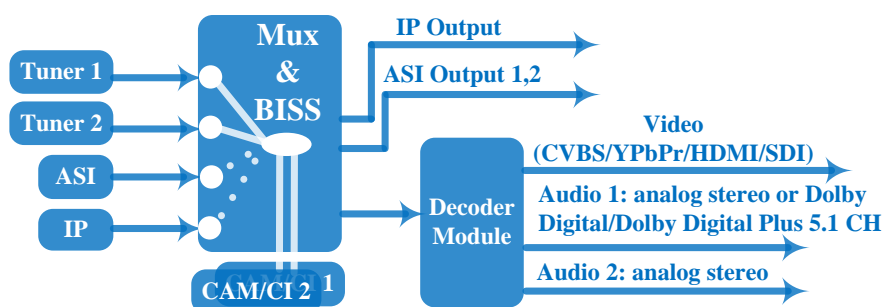
## Key Features

- Demodulation + descrambler +re-mux+decoder modules in one box
- 2 DVB-C/T/(T)/S/S2/S2X/ATSC-T/ISDBT Tuner inputs optional
- 1 ASI & 1 IP (UDP) input for re-mux
- One CAM can decrypt multiple programs from Tuners/ASI/IP
- Support BISS descrambling (Up to 120Mbps)
- Support 4:2:0 HD/SD MPEG2 and MPEG4 AVC/H.264 decoding
- Dual channel stereo audio output, or one channel Dolby Digital/Dolby Digital Plus (5.1) channel output (for HDMI/SDI out)
- Support Dolby Digital/Dolby Digital Plus Decoding and passthrough
- IP (1 MPTS & 8 SPTS) over UDP and RTP/RTSP output; ASI out
- Support CC and Subtitle
- Support maximum 128 PID mapping per input
- Pluggable and changeable demodulator and decoder modules
- LCD display, Remote control and Firmware, web NMS management
- Updates via web



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## Principle Chart



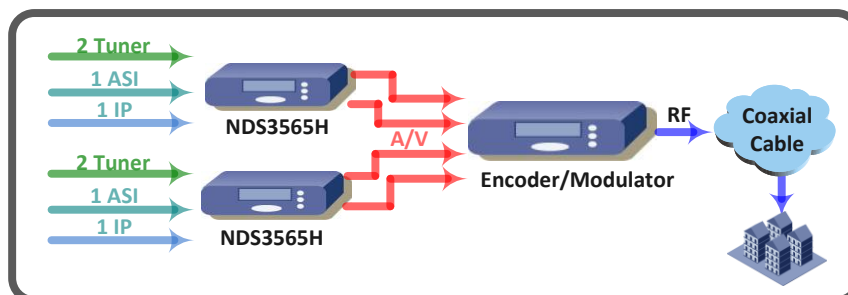
## Technical Specifications

<b>Input</b>	2 *Tuner, F type				
	1*ASI input for re-mux, BNC interface				
	1*IP input for re-mux (UDP)				
<b>Tuner Section</b>	Multi-mode tuners switchable (New)	DVB-C	Input Frequency	60 ~890 MHz	
			Standard	J.83A, J.83C	J.83B
			Constellation	16/32/64/128/256 QAM	64/256 QAM
		DVB-T/(T)	Input Frequency	60 ~890 MHz	
			Bandwidth	6/7/8 M	
		ISDB-T	Input Frequency	60 ~890 MHz	
	Version 1	DVB-S	Input Frequency	950~2150MHz	
			Symbol rate	1~45 Msps	
			FEC	1/2, 2/3, 3/4, 5/6, 7/8	
			Constellation	QPSK	
			Signal Strength	- 65~-25dBm	
		Max input bitrate	≤ 120 Mbps		
		DVB-S2	Input Frequency	950~2150MHz	
			Symbol rate	1~45 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 (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 32APSK: 0.5~40Msps;		
		FEC	QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10		

		DVB-S2X		32APSK: 3/4, 4/5, 5/6, 8/9, 9/10
			Constellation	QPSK, 8PSK, 16APSK, 32APSK
			Max input bitrate	≤160 Mbps
			Input Frequency	950~2150MHz
			Symbol rate	QPSK/8PSK /16APSK :0.5~45 Msps 8APSK: 0.5~40Msps 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 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 8APSK: 5/9-L, 26/45-L 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 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	
		ATSC	Input Frequency	54~858MHz
			Bandwidth	6M
Constellation	8VSB			
<b>Descrambling</b>	CAM/CI Quantity	2		
	BISS Mode	Mode 1, Mode E (up to 120Mbps)		
<b>Output</b>	IP (1*MPTS & 8*SPTS) out over UDP, RTP/RTSP.			
	100Base-T Ethernet interface (unicast / multicast)			
	2×ASI mirrored out, BNC interface			
	Decode Output	Video	Interface: CVBS/YPbPr/HDMI/SDI	
			Number of channels: 1	
			Decode: 4:2:0 HD/SD MPEG-2 and MPEG4 AVC/H.264	
			Resolution: 480i, 480p, 576i, 576p, 720p@50/59.94/60, 1080i@50/59.94/60	
	Audio	Audio	Interface: HDMI, SDI, BNC, XLR	
			Number of channels: 2	
			Decode: MPEG 1 Layer II, LC-AAC, HE-AAC, Dolby Digital/ Dolby Digital Plus	
Audio Output Mode: Left, Right, Stereo, DD AC3 (5.1) CH (for HDMI/SDI out only)				
<b>System</b>	Local interface	LCD + control buttons		
	Remote management	Web-server Management		
	Language	English		
	Upgrade	USB, web management		
<b>Miscellaneous</b>	Dimension	482*300*44.5mm (W×L×H)		

Approx weight	3.5kg
Environment	0~45°C(work); -20~80°C (Storage)
Power requirements	100~240VAC, 50/60Hz
Power consumption	20W

## System Connection Sample



## Ordering Guide

NDS356xH, 'x' should be interpreted as different digits which indicate tuners of different standard.

- ✓ NDS3561H DVB-C HD IRD
- ✓ NDS3564H DVB-T/(T) HD IRD
- ✓ NDS3565H DVB-S/S2/S2X HD IRD
- ✓ NDS3567H ATSC-T HD IRD

## Technical Comparison

	NDS356xH	NDS397X
Chipset	ST7105	ST7101
Tuner Input Standard	DVB-C/T/(T)/S/S2/S2X/ATSC-T/ ISDB-T	DVB-C/(T)S/S2/ISDB-T/ATSC-T
Tuner Input	2xTuner	1xTuner
Audio Out Channel	2xStereo or 1xDolby Digital (5.1)	1xStereo or 1xDolby Digital (5.1)
SPDIF Audio Out	N/A	Support
AC3 Passthrough	For HDMI and SDI interface	For SDI interface
ASI Out	2xASI Mirrored out	2xASI output (after multiplexer) and 2xASI output (tuner input pass through)
Manage	Web	SNMP, Web

		NDS356xH	NDS3975B
CC /Subtitle/Teletext		Support CC & Subtitle	Support CC & Teletext (Teletext is on development)
Decoding Module	Video Interface	CVBS/YPbPr/HDMI/SDI	CVBS/HDMI/SDI
	Video Decode Format	MPEG-2; MPEG4 AVC/H.264	MPEG-2; MPEG4 AVC/H.264; HEVC/ H.265



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Add: No. 10 & No. 12, Wuxing Fourth Road, Wuhou District, Chengdu 610045, Sichuan, P.R. China  
 www.dsdb.com/English Tel: +86-028-85558928 Fax: +86-028-85585255 Email: sunyu@dsdb.com

<b>Audio Interface</b>	HDMI, SDI, BNC, XLR	HDMI, SDI, SPDIF, BNC, XLR
<b>Audio Decode Format</b>	MPEG 1 Layer II, LC-AAC, HE-AAC, Dolby Digital/ Dolby Digital Plus	MPEG 1 Layer II, LC-AAC, HE-AAC, HE-AAC V2, Dolby Digital/ Dolby Digital Plus
<b>Audio Output Mode</b>	Left, Right, Stereo, DD AC3 (5.1) CH (for HDMI/SDI out only)	Left, Right, Stereo
<b>Output Resolution</b>	1080i@50/59.94/60, 720p@50/59.94/60, 576i, 576p, 480i, 480p,	1920×1080_60p,1920×1080_60i, 1920×1080_50p;1920×1080_50i; 1280×720_60P, 1280×720_50P; 480i, 576i
<b>Output channel</b>	Dual channels audio and one channel video	One channel audio and video

*Update date: 8 May, 2019*