

## INGRON1302IH Two-Channel RF in HD Professional IRD



### Features

- 2\*Tuner inputs, modes available in DVB-T/T2, DVB-S/S2, or DVB-C
- 1\*ASI and 1\*IP input (UDP, RTP/RTSP) available for Re-Multiplexing
- Video decoding in MPEG-2 / MPEG-4 AVC(H.264) digital standard
- Integrated with de-modulation, de-scrambling & decoding functions within one unit
- Each CAM able to decrypt multiple programs from Tuner, ASI, or IP input
- 2\*DVB-CI slots for multi-program decryption
- Output with one channel CVBS, HDMI, SDI, or YPbPr video, and 1\*ASI+1\*ASI(backup)
- Two-channel stereo audio, or one Dolby Digital/Dolby Digital Plus (5.1) channel output
- Dolby Digital/Dolby Digital Plus Decoding and pass-through (for HDMI/SDI out)
- Support Closed Caption(CC), Subtitle and Teletext
- BISS decryption modes available
- IP(1\*MPTS & 8\*SPTS) on UDP and RTP/RTSP output
- Unicast and multicast supported for IP out stream
- Max. 128 PID mapping supported per input
- Monitoring working situation by network systems
- Software upgrading through web or USB
- Easy-operation by LCD and keyboard on front panel and WebNMS

### Specifications

#### Tuner Input

DVB-C Mode	Connector Type	2*F type female, 75Ω for input; 2*F type female, 75Ω for loop through output
	Input Frequency	30 ~ 1000 MHz
	Input Level	45 ~ 75 dBuV
	Symbol Rate	1 ~ 7 Mbaud
	Constellation	16/32/64/128/256 QAM
	Bandwidth	6 MHz, 7 MHz, 8 MHz
DVB-S/S2 Tuner input	Connector Type	2*F type female, 75Ω for input; 2*F type female, 75Ω for loop through output
	Input Frequency	950 ~ 2150 MHz
	Symbol Rate	2 ~ 45 MBaud (for DVB-S); 1 ~ 45 Mbaud (for DVB-S2, QPSK); 2 ~ 30 Mbaud (for DVB-S2, 8PSK)
	Code rate	(DVB-S, QPSK) 1/2, 2/3, 3/4, 5/6, 7/8; (DVB-S2, QPSK,8PSK ) 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
	Input Level	-65 ~ -25 dBm
	Roll-off Factor	(DVB-S) 0.35; (DVB-S2) 0.35, 0.25, 0.2
DTV-T/T2 Tuner input	Connector Type	2*F type female, 75Ω for input; 2*F type female, 75Ω for loop through output
	Input Frequency	30 ~ 999.999 MHz
	Input Level	-70 ~ -20 dBm
	Bandwidth	6 MHz, 7 MHz, 8 MHz
	FFT	2K/8K

### ASI Input

ASI Input	Standard	DVB-ASI, EN50083-9
	Input Bit-Rate	≤49Mbps
	Connector Type	1*BNC female 75Ω

### IP Input

IP Input	Connector Type	TS over IP, UDP
	Connector Type	RJ45, 10/100M Base-T
	Bit-Rate	≤70Mbps

### DVB-CI Module

Descrambling Processing	DVB-CAS
Smart Card Interface	ISO7816
Interface Card Separation	2*PCMCIA
BISS Mode	BISS-1, BISS-E, up to 120Mbps

### Output

ASI Output	Number	2*ASI
	Standard	EN 50083-9 ASI
	Output Bit Rate	Max. 54 Mbps
	MPEG Frame	188/204 byte
	Reflection Loss	>10 dB
	Connector Type	75Ω, BNC interface
IP Output	Transport Protocol	TS over IP, UDP, RTP/RTSP protocol
	Connector Type	RJ45, 10/100M Base-T
	Output TS Mode	1*MPTS & 8*SPTS
	Mode	Multicast/Unicast
Video Output	Video Out Interface	1*CVBS / 1*SDI / 1*YPbPr, BNC interface 1*HDMI
	Resolution	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
	Video Decoding	MPEG-2/H.264
Audio Output	Audio Out interface	2 *Stereo/4*mono, HDMI, SDI
	Audio Decoding	MPEG-1 Layer II LC-AAC, HE-AAC, Dolby Digital/ Dolby Digital Plus
	Audio Output Mode	Left, Right, Stereo, 5.1 CH

### Management

Local Control	by keyboard or LCD on front panel
Upgrading	by Ethernet interface or USB
Remote Control	by web NMS
Language	English

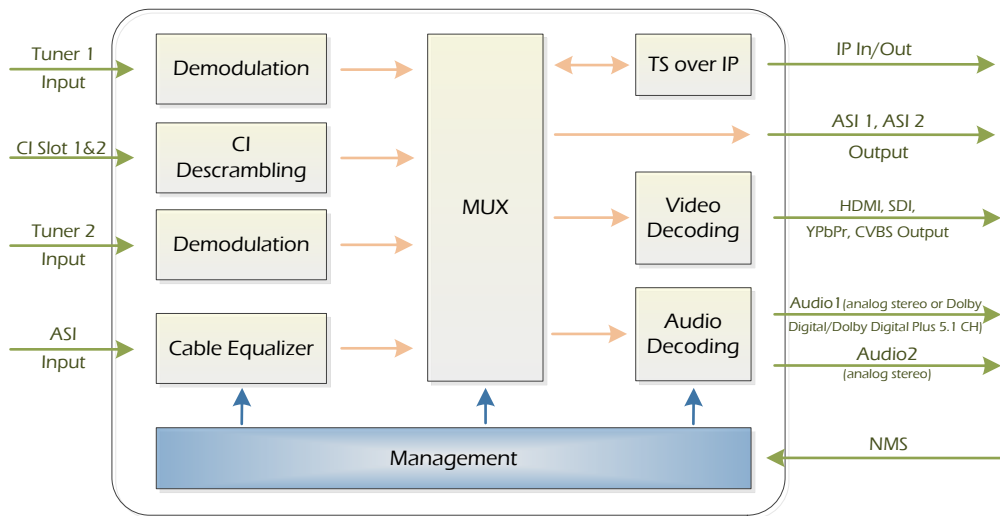
### General

Voltage	100~240V AC, 50/60Hz
Power Consumption	18.0 W
Environment	0~45°C (Operation), -20~80°C (Storage)
Dimension (W*D*H)	482*405*44 mm
Gross Weight	4.0 KGS

**Introductions**

INGRON1302IH HD Professional IRD is an integrated device with demodulation, de-scrambling and decoding modules within a unit. It supports 2\*Tuner input in DVB-C, DVB-T/T2, or DVB-S/S2 standard, de-modulates (and de-scrambles) the RF signal and converts to one-channel of CVBS, HDMI, SDI or YPbPr for output. It is also configured with 1\*ASI and 1\*IP inputs, so that external streams can be re-multiplexed with the input signals from Tuner. With the two CAMs/CIs and BISS descrambling module, programs input from encrypted RF, ASI and IP can be descrambled. Video is decoded in MPEG-2/MPEG-4 AVC(H.264) standard and audio in MPEG-1 Layer II and AAC. Dolby Digital/ Dolby Digital Plus decoding and pass-through are also available for HDMI and SDI outputs. INGRON1302IH HD Professional IRD is a stable, mature and high integrated IRD with excellent performance index. It is an ideal choice for digital TV head-end contribution/distribution system, IPTV projects and so on.

**Diagram**



**Rear Panel**



**Options**

	<b>INGRON 1302IH-S/S2</b>	<b>INGRON 1302IH-T/T2</b>	<b>INGRON 1302IH-C</b>
<b>Tuner In Mode</b>	DVB-S/S2	DVB-T/T2	DVB-C