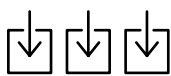# High-Definition Modulator

Modulated signals in HD to DVB-T/C and IP.

Multi-Input
HDMI , HD-SDI , CVBS
Multi-format

Editable channel name
and information to be
shown on the TV set

Connecting a local or
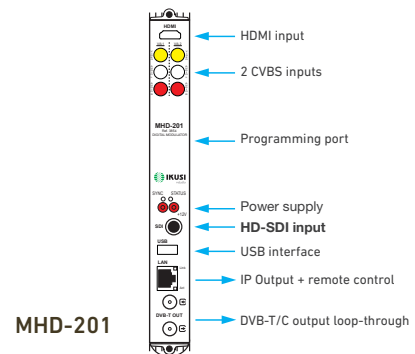remote web interface

DVB-T/C , IP
simultaneous
outputs

MHD-201 modulator

Main features

- The MHD-201 is a module designed and manufactured completely with
  in-house technology, that is able to treat different video and audio formats, to create a high-definition output channel in DVB-T/C and in IP which can be active simultaneously.

- The unit has various types of inputs:

    Two analogue audio and video channels, through RCA connectors.

    One digital audio and video channel in HDMI, through an HDMI connection.

    One digital audio and video channel in HD-SDI, through a BNC connector.

- High definition RF output channel in DVB-T/C and in IP which can be active simultaneously.

- This product solution fulfils the needs of video signal distribution in residential facilities, hospitals, hotels and unique buildings and also CCTV integration in existing installations. The MHD-201 has also an USB interface for HD video contents playback from a USB memory automatically.

MODEL		MHD-201
REF.		3854
Inputs		(2x) CVBS, HDMI, HD-SDI
Input level (CVBS)	Vpp	0,7 - 1,4
Video standard		PAL/SECAM/NTSC/B&W
Audio standard		1 (Mono and Stereo)
Video compression		MPEG2 MP@ML, H.264/MPEG4 AVC MP L4.1
Audio compression		MPEG1 layer II
Video quality		SD, HD (480i, 576i, 480P, 576P, 720p50, 720p,1080i50, 1080i60, 1080p50, 1080p60)
Maximum resolution		1080p60
DVB-T / DVB-C outputs		DVB-T in accordance with ETSI EN 300 744 DVB-C in accordance with ETSI EN 300 429
Bandwidth	MHz	6 / 7 / 8
Number of carriers		2K / 8K
MER	dB	≥ 40
Central frequency	MHz	45 - 858
Output level	dBµV	≥ 80
Output attenuation	dB	0.5
Level adjustment	dB	-25
Frequency stability	ppm	≤±30
Noise figure (ΔB = 8 MHz)	dBc	≤-65
Loopthrough frequency		45 MHz to 2,5 GHz
DVB-C output symbol rate	Kbps	3000 - 8000
Constellation		DVB-T: 16QAM , 64QAM DVB-C: 16QAM , 32QAM , 64QAM , 128QAM , 256QAM

IP output		IEEE 802.3 10/100 Base T
IP encapsulated type		According to ETSI TS 102 034 v1.31(2007-10) and SMPTE ST 2022-2:2007
Outflow IP		CBR/VBR
IP Address		Unicast/Multicast
Protocols		UDP/RTP
IP encapsulated format		SPTS
DVB processing		PAT, PMT, SDT, NIT
NIT and SDT adaptation		Yes
PSI/SI adaptation		PAT, PMT, SDT, NIT
TS monitoring		Yes
Network configuration		NID, ONID, TSID, Network name, Provider
SID configuration		Yes
LCN, TDT, TOT processing		Yes
Channel name edition (EIT)		Yes (ex. "camera pool")
Event description (EIT)		Yes (ex. "open from 9am to 18pm")
Supply voltage	VDC	+12
Firmware upgrade		web interface
Playback from a USB		Yes
Consumption	A	1.3
Dimensions	mm	230 x 195 x 32

HDMI input
2 CVBS inputs
MHD-201
Programming port
Power supply
HD-SDI input
USB interface
IP Output + remote control
DVB-T/C output loop-through

MHD-201

Possible input combinations:

- SD CVBS/Audio + SD CVBS/Audio
- SD HDMI + SD CVBS/Audio
- SD SDI + SD CVBS/Audio
- SD + USB

2 simultaneous SD channels
1 channel SD + USB

- HD HDMI
- HD SDI
- HD + USB

1 channel HD
1 channel HD + USB

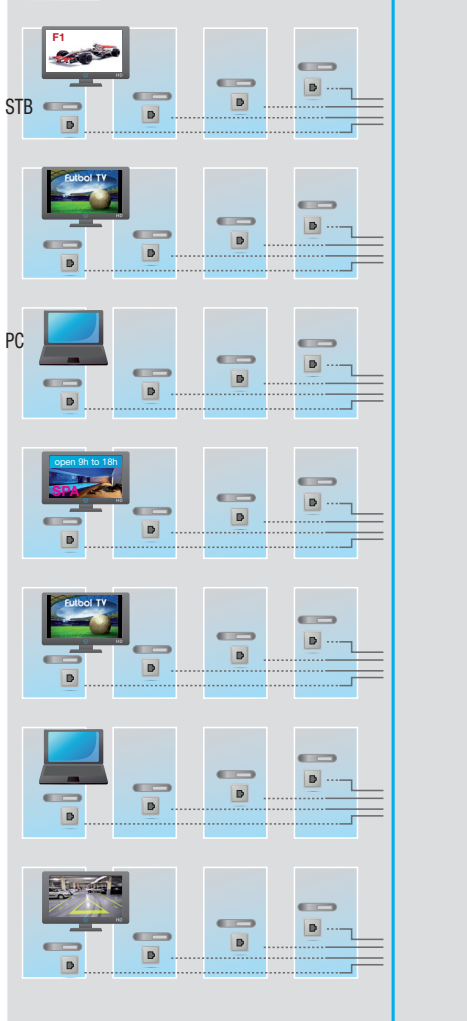# MHD-201 modulator
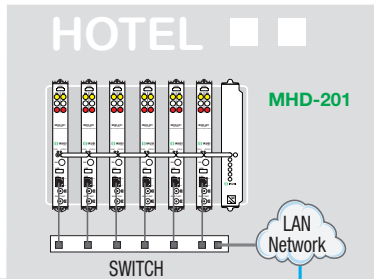
Example d'installation

Application in residential installations, communal blocks, hotels, hospitals, individual buildings or video security installations.
Allows any business to economically and straightforwardly generate its own advertising and information channel.

Digital signage application. Playback from the USB memory is automatic.

SOME OF THE SUPPORTED VIDEO SOURCES

IP output Headend

DVB-T/C output Headend

HOTEL

HOTEL

MHD-201

MHD-201

LAN Network

SWITCH

STB

PC

Satellite Channel (IRD)

Player channel (DVD)

Video surveillance channel

Advertising channel (USB)

Studio channel