EKSELANS BY ITS

USER MANIAL

MD HD EASY LOOP

122011

DIGITAL MODULATOR WITH LOOP

V02

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Introduction:

Description:

Digital modulator with which you can transfer an FHD signal over a coaxial cable network to your TV receivers with excellent quality.

Key features:

- Resolution up to 1080p.
- Active HDMI source indication.
- LOOP HDMI IN / OUT.
- Excellent MER modulation quality ≥33 dB.
- Quick menu. Easy adjustment using channel buttons, attenuation, program ID.
- Easy advanced programming via PC program (MDHDSoft).

Packaging content:

1. 1 x MD HD EASY LOOP.
2. 1 x 5V DC 2ª Power supply.

Interfaces and connection:

Interfaces:

1 y 2-Buttons for programming.

3.-RF output.

4.-RF input.

5.-5V DC power supply.

6.-USB Type B setup.

7.-HDMI input.

8.- HDMI Output (LOOP).

Installation diagram:

1 y 2- They are used to configure.

3.- Connects to installation (for receivers).

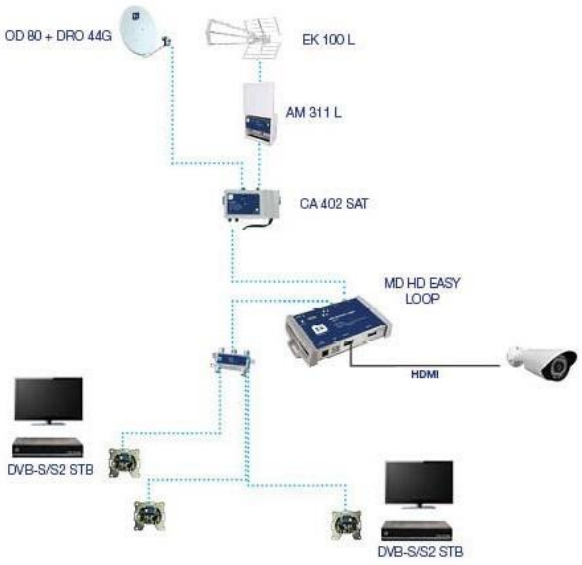
4.-RF signals are input.

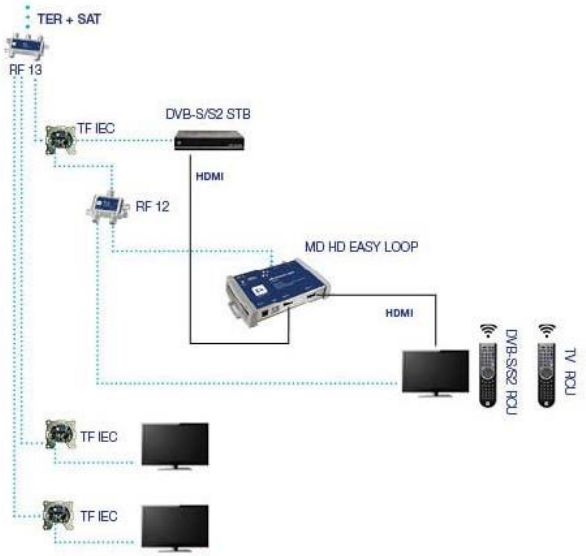
5.- The built-in power supply is connected and plugged into the current.

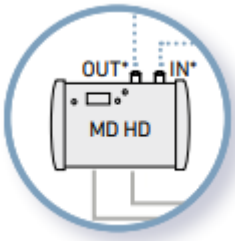
6.-Connects to pc if necessary, to set up with MD HD SOFT app.

7.-It connects the signal you want to modulate.

8.- Output with the same un modular signal as on the hdmi input.

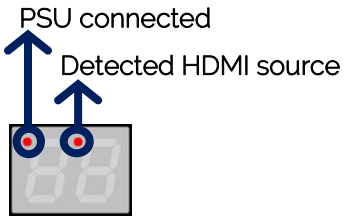






For your convenience in case you have the modulator near from TV, you can use the RF IN as an output for the TV.

Basic programming using buttons:



- Press ▲/▼ to change the menu option.
  - 
    to set the output channel [5…12+ 21…69].
  - 
    to modify the Program Id [1…34].
  - 
    to set the desired attenuation [0…15 dB].
- Press ENTER +▲/▼ in the different menu options to modify their parameters.

- Press ▲ while the power is connected to defaults.  will appear on the display.
- Note: In case of using more than one modulator for the same receiver or TV set, it is necessary to modify the **"ProgramID"** so that they have different values.

Advanced programming using MD HD Soft

- Foradvancedsettings, downloadtheSW "EK_MDHDSoft" fromthewebsite: www.ek.plus
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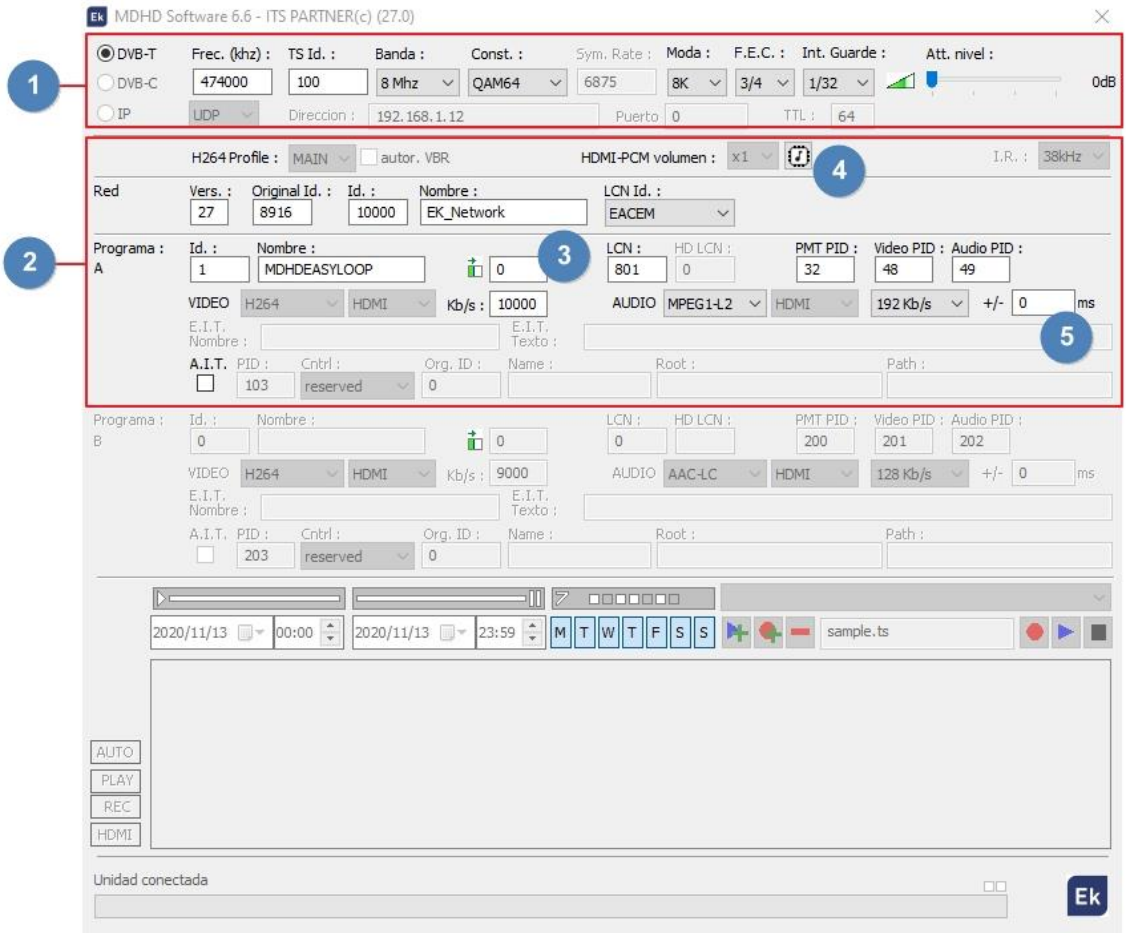

1. RF settings.
2. Video and TS settings
3. This option will be used to adjust some deviation in the video input signal. With some sources (very rare cases), a green band appears to the left of the image. This option will allow you to move this band until it disappears.
4. Use in case you do not listen to DD by RF output. Clicking this button will write the EDID table.
5. Offset between RF modulated audio and video. **-999ms,** indicates that the audio is almost 1 second ahead of the video.

Technical data

REFERENCE		MD HD EASY LOOP
Code		122011
HDMI IMPUT		
VÍDEO		
Video resolution		480p - 576p - 720p - 1080i - 1080p
Video compression		H.264
Video rate	Kbps	500-15000
AUDIO		
Audio compression		MPEG1-L2, AAC-LC
Audio rate	Kbps	128, 192, 256, 320, 384
HDMI OUTPUT		LOOP
MODULATION		
DVB processing		NIT, PID
DVB adjustments		NID, ONID, Network ID, Network name, TS ID, ProgramID, Programname, PMTPID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5…12 + 21…69
Output level	dBµV	>80
Attenuation	dB	0…15
MER	dB	≥33
Bandwith	MHz	6, 7, 8
Constellation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 6/7
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
RF Loop	dB	-2
GENERAL		
Voltage	Vdc	5
Power consumption	W	<10
Dimensions	mm	153 x 96 x 34

Frequency and channels table (Standard B/G)

- Banda III. 7MHz Bandwidth.
- Banda IV - V. 8MHz Bandwidth.

BAND	Channel	Start frequency	End frequency	Central frequency
III	5	174 MHz	181 MHz	177,5 MHz
	6	181 MHz	188 MHz	184,5 MHz
	7	188 MHz	195 MHz	191,5 MHz
	8	195 MHz	202 MHz	198,5 MHz
	9	202 MHz	209 MHz	205,5 MHz
	10	209 MHz	216 MHz	212,5 MHz
	11	216 MHz	223 MHz	219,5 MHz
	12	223 MHz	230 MHz	226,5 MHz

BAND	Channel	Start frequency	End frequency	Central frequency
IV	21	470 MHz	478 MHz	474 MHz
	22	478 MHz	486 MHz	482 MHz
	23	486 MHz	494 MHz	490 MHz
	24	494 MHz	502 MHz	498 MHz
	25	502 MHz	510 MHz	506 MHz
	26	510 MHz	518 MHz	514 MHz
	27	518 MHz	526 MHz	522 MHz
	28	526 MHz	534 MHz	530 MHz
	29	534 MHz	542 MHz	538 MHz
	30	542 MHz	550 MHz	546 MHz
	31	550 MHz	558 MHz	554 MHz
	32	558 MHz	566 MHz	562 MHz
	33	566 MHz	574 MHz	570 MHz
	34	574 MHz	582 MHz	578 MHz
	35	582 MHz	590 MHz	586 MHz
	36	590 MHz	598 MHz	594 MHz
	37	598 MHz	606 MHz	602 MHz

BAND	LTE	Channel	Start frequency	End frequency	Central frequency
V		38	606 MHz	614 MHz	610 MHz
		39	614 MHz	622 MHz	618 MHz
		40	622 MHz	630 MHz	626 MHz
		41	630 MHz	638 MHz	634 MHz
		42	638 MHz	646 MHz	642 MHz
		43	646 MHz	654 MHz	650 MHz
		44	654 MHz	662 MHz	658 MHz
		45	662 MHz	670 MHz	666 MHz
		46	670 MHz	678 MHz	674 MHz
		47	678 MHz	686 MHz	682 MHz
		48	686 MHz	694 MHz	690 MHz
	2	49	694 MHz	702 MHz	698 MHz
	2	50	702 MHz	710 MHz	706 MHz
	2	51	710 MHz	718 MHz	714 MHz
	2	52	718 MHz	726 MHz	722 MHz
	2	53	726 MHz	734 MHz	730 MHz
	2	54	734 MHz	742 MHz	738 MHz
	2	55	742 MHz	750 MHz	746 MHz
	2	56	750 MHz	758 MHz	754 MHz
	2	57	758 MHz	766 MHz	762 MHz
	2	58	766 MHz	774 MHz	770 MHz
	2	59	774 MHz	782 MHz	778 MHz
	2	60	782 MHz	790 MHz	786 MHz
	1	61	790 MHz	798 MHz	794 MHz
	1	62	798 MHz	806 MHz	802 MHz
	1	63	806 MHz	814 MHz	810 MHz
	1	64	814 MHz	822 MHz	818 MHz
	1	65	822 MHz	830 MHz	826 MHz
	1	66	830 MHz	838 MHz	834 MHz
	1	67	838 MHz	846 MHz	842 MHz
	1	68	846 MHz	854 MHz	850 MHz
	1	69	854 MHz	862 MHz	858 MHz