



EKSELANS BY ITS

# EK MODULATORS: THE MOST COMPLETE MARKET RANGE

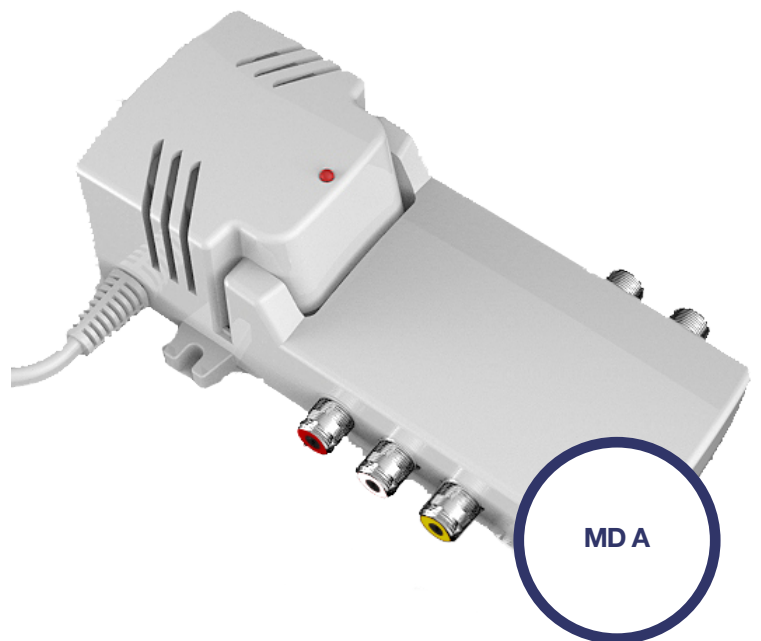


# ANALOG MODULATORS

## MD A

REFERENCE		MD A
Code		121001
Inputs	N°	2 x AUDIO + VIDEO
Audio regulation	dB	0-14
RF Outputs	N°	1
Frequency Range	MHz	47-862
Standards		B/G/D/K/H/I/L/M/N
Regulation	dB	15
Ouput level	dBµV	90
Insertion losses	MHz/ dB	47-862/2 862-2150/4
Mains voltage	Vac	230 +/-10%
Current consumption	W	2,5

- DBS Modulator
- Easy output channel programming through display
- Full band (47 - 862 MHz)
- Multistandard
- High output level
- L and R audio inputs
- TV mix



# SD DIGITAL MODULATORS

## MD SD

- Encoders/ modulators COFDM SD
- Excellent modulation quality MER  $\geq 35$ dB
- For SD and MPEG2 TVs



REFERENCE		MD SD
Code		122003
Video Inputs		
Input		CVBS
Resolution mode		PAL (720x576) NTSC (720x480)
Compresión		MPEG 2
Audio Inputs		
Input		Audio estéreo x 2/ 0,5-2,5 Vpp
Sample rate	KHz	48
Compression		MPEG1,LAYER II
DVB Processing		
Table insertion		PAT, PNT, SDT, NIT
Configuration		Program name, SID, LCN, NETWORK NAME, TSD, ONID, NID, VERSION NIT, LCN, PID, PMT, PID VIDEO, PID AUDIO
DVB-T output		
Output frequency / level		47-862 MHz / >80 dB $\mu$ V. ADJUSTABLE 0-29 dB
Constellation - FEC		QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
Guard interval		1/4, 1/8, 1/16, 1/32
MER mode	dB	2K/8K - 35
Mains		
Plug DC 2.1 mm	V	+5
Consumption	W	10
Dimension	mm	L x W x H 170 x 130 x 35
Weight	kg	0,6

# HD DIGITAL MODULATORS

## MD HD EASY

REFERENCE		MD HD EASY
Code		122008
Input		HDMI
VIDEO		
Video resolution		480p - 576p - 720p - 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
MODULATION		
DVB processing		NIT, PID
DVB adjustments		NID, ONID, Network ID, Network name, TS ID, Program ID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5...12 + 21...69
Output level	dB $\mu$ V	>80
Attenuation	dB	0...15
MER	dB	$\geq$ 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		
Mains voltage	Vdc	+5Vdc
Power consumption	W	<10
Dimensions	mm	150 x 99 x 46
Weigth	g	215

- Encoder/ modulator COFDM HD
- Excellent modulation quality. MER  $\geq$ 35 dB
- HD resolution up to 1080p
- LED indicator of active HDMI source
- Quick menu. Easy selection with buttons of channel and attenuation
- Advanced programming via PC software



# HD DIGITAL MODULATORS

## MD HD EASY LOOP

- Encoder/ modulator COFDM HD with HDMI LOOP
- HD resolution up to 1080p
- LED indicator of active HDMI source
- LOOP HDMI IN / OUT
- Excellent modulation quality. MER  $\geq 33$  dB
- Quick menu. Easy selection by buttons of channel, attenuation and program ID
- Advanced programming via PC software , MD HD Soft



REFERENCE		MD HD EASY LOOP
Code		122011
Input		HDMI
Output		HDMI LOOP
VIDEO		
Video resolution		480p - 576p - 720p - 1080p
Video compression		H.264
Video rate	Kbps	500-15000
AUDIO		
Audio compression		MPEG1-L2, AAC-LC
Audio rate	Kbps	128, 192, 256, 320
MODULATION		
DVB processing		NIT, PID
DVB adjustments		NID, ONID, Network ID, Network name, TS ID, Program ID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5...12 + 21...69
Output level	dB $\mu$ V	>80
Attenuation	dB	0...15
MER	dB	$\geq 33$
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		
Mains voltage	Vdc	+5Vdc
Power consumption	W	<10
Dimensions	mm	150 x 99 x 34
Weigth	g	215

# HD DIGITAL MODULATORS

## MD HD EASY RC

REFERENCE		MD HD EASY RC
Code		122014
Input		HDMI
Output		LOOP HDMI
VIDEO		
Video resolution		480p - 576p - 720p - 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, Program ID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5...12 + 21...69
Output level	dB $\mu$ V	>80
Attenuation	dB	0...15
MER	dB	$\geq$ 33
Bandwith	MHz	6, 7, 8
Constellation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
RF loop	dB	-2
INFRARED EXTENDER		
Cable with IR emitter - Freq		Included 38-46-56
USB		
USB Connector		.ts files Record & Play
GENERAL		
Mains voltage	Vdc	+5 (RF OUT pass optional)
Power consumption	W	<4
Dimensions	mm	170 x 130 x 35
Weigth	kg	0,6

- Digital COFDM HD modulator-encoder with IR extender
- Excellent modulation quality. MER  $\geq$ 33 dB. HD resolution up to 1080p
- Universal infrared extender. Allows IR frequency selection
- LOOP HDMI IN / OUT
- Recorder / Player USB
- Quick menu. Easy selection with buttons of channel, attenuation, program identifier and IR frequency
- Advanced programming via PC software
- Compatible with universal IR receiver, model TRC
- High dynamic range > 80dB

QUICK  
MENU

HD

HDMI  
LOOP

IR

USB  
REC&PLAY\*\*\*  
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EUROPE  
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MD HD  
EASY RC

# HD DIGITAL MODULATORS

## MD HD EASY TWIN

- Digital COFDM HD modulator-encoder with 2 HDMI inputs
- Excellent modulation quality. MER  $\geq 33$  dB. HD resolution up to 1080p
- 2 HDMI inputs
- Recorder / Player USB
- Quick menu. Easy selection with buttons
- Modulation in only one output MUX
- Advanced programming via PC software



MD HD EASY TWIN

REFERENCE		MD HD EASY TWIN
Code		122013
Inputs		2 x HDMI
VIDEO		
Video resolution		480p - 576p - 720p - 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
MODULATION		
DVB processing		NIT, PID
DVB adjustments		NID, ONID, Network ID, Network name, TS ID, Program ID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Output channel	N.	5...12 + 21...69
Output level	dB $\mu$ V	>80
Attenuation	dB	0...15
MER	dB	$\geq 33$
Bandwidth	MHz	6, 7, 8
Constellation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
RF loop	dB	-2
USB		
USB Connector		.ts files Record & Play
USB Connector B type		For PC programming
GENERAL		
Mains voltage	Vdc	+5 (RF OUT pass optional)
Power consumption	W	<4
Dimensions	mm	170 x 100 x 25
Weigth	kg	0,6

# HD MODULATOR 4K COMPATIBLE

## MD HD L4K

- Digital modulator-encoder
- HD COFDM.
- LOOP HDMI IN / OUT.
- Resolution up to 1080p.
- Excellent MER modulation quality > = 33dB.
- Quick menu Easy channel setting,
- attenuation and program identifier by means of buttons on the front.
- Easy advanced programming via PC program (MDHDSOft).

QUICK  
MENU

HDMI  
LOOP 4K

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HD

REFERENCE	MD HD L4K	
Code	122015	
IN	HDMI 2.0, fully compliant HDCP 2.2 backwards compliant HDMI 1.4	
OUT	loop HDMI	
VIDEO		
Input video resolution supported	480i@60Hz, 480p@60Hz, 576i@50Hz, 720p@50/60Hz, 1080p@50/60Hz, 1080i@50/60Hz, 4Kx2K@24/30/50Hz	
Data rate	6Gbps per channel	
Video encoding	H.264	
Video rate	15 Mbps	
AUDIO		
Audio encoding	MPEG1-L2, AAC-LC	
Audio rate	Kbps	128, 192, 256, 320, 384
MODULATION		
Output video resolution	1080p maximum	
DVB processing	NIT, PID	
DVB configuration	NID, ONID, Network name, TSID, PID, Program name, PMT PID, Video PID, Audio PID	
Output frequency	MHz	170-230 & 470-862
Channel output	5-12 & 21-69	
Output level	dBuV	>80
Attenuation	dB	0..15
MER	dB	>33
Bandwidth	MHz	6,7,8
Constellation	QPSK, 16QAM, 64QAM	
Mode	2K, 8K	
FEC	1/2, 2/3, 3/4, 5/6, 7/8	
Guard interval	1/4, 1/8, 1/16, 1/32	
LCN	EACEM, ITC, NORDIG	
Loop RF	dB	-2
GENERAL		
Power supply	Vdc	5
Power consumption	W	<5
Size	mm	170x130x35
Weight	Kg	0,6





# HD MODULATOR 4K COMPATIBLE

## MD HD L4K RC

- COFDM HD digital encoder modulator with IR extender.
- LOOP HDMI IN / OUT 4K.
- Resolution up to 1080p in modulator.
- Excellent MER modulation quality > = 33dB.
- Quick menu Easy adjustment of channel, attenuation, program identifier and IR frequency using buttons on the front.
- Easy advanced programming via PC program (MDHDSOft).
- Universal infrared extender Allows selection of infrared frequency 30-60KHz.
- High dynamic range IR reception (80dB).
- USB recorder / player.



REFERENCE		MD HD L4K RC
Code		122016
IN		HDMI 2.0, fully compliant HDCP 2.2 backwards compliant HDMI 1.4
OUT		loop HDMI
VIDEO		
Input video resolution supported		480i@60Hz, 480p@60Hz, 576i@50Hz, 720p@50/60Hz, 1080p@50/60Hz, 1080i@50/60Hz, 4Kx2K@24/30/50Hz
Data rate		6Gbps per channel
Video encoding		H.264
Video rate		15 Mbps
AUDIO		
Audio encoding		MPEG1-L2, AAC-LC
Audio rate	Kbps	128, 192, 256, 320, 384
MODULATION		
Output video resolution		1080p maximum
DVB processing		NIT, PID
DVB configuration		NID, ONID, Network name, TSID, PID, Program name, PMT PID, Video PID, Audio PID
Output frequency	MHz	170-230 & 470-862
Channel output		5-12 & 21-69
Output level	dBuV	>80
Attenuation	dB	0..15
MER	dB	>33
Bandwidth	MHz	6,7,8
Constellation		QPSK, 16QAM, 64QAM
Mode		2K, 8K
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Guard interval		1/4, 1/8, 1/16, 1/32
LCN		EACEM, ITC, NORDIG
Loop RF	dB	-2
INFRARED EXTENDER		
Cable with IR emitter-Freq.	KHz	38-46-56
USB		
USB connector		H.264 *.ts files Record & Play
GENERAL		
Power supply	Vdc	5 (RF OUT pass optional)
Power consumption	W	<5
Size	mm	170x130x35
Weight	Kg	0,6

# REMOTE CONTROL REPEATERS

REFERENCE		TRC
Code		125002
Infrared receiver (TRC)		
Infrared frequencies	KHz	30 - 60
RF frequencies	MHz	11
Commands reception indication		LED
Feeding	Vdc	5
Voltage feeding ports		DC Jack 3,5mm / ANT
Consumption	mA	<50

## TRC

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- Universal remote control transmitter with coaxial cable
- Universal IR frequency receiver
- Possibility of extending the installation with other TRC
- Power supply by external source (FA 505)
- Confirmation by LED reception of the remote control
- Compatible with **MD HD EASY RC**



# REMOTE CONTROL REPEATERS

## IR RC

- Universal remote control transmitter with coaxial cable
- Universal IR frequency receiver
- Possibility of extending the installation with other TRC
- Power supply by external source (FA 505)
- Confirmation by LED reception of the remote control
- Dynamic margin > 80dB
- Compatible with **MD HD EASY RC**



## IR-W2 / IR-W2 EXT

- A/V accessories
- Wireless universal IR frequency repeater
- Supports other IR W2 EXT in the same installation



REFERENCE		IR RC
Code		124010
Infrared receiver (TRC)		
Infrared frequencies	KHz	30 - 60
RF frequencies	MHz	11
Commands reception indication		LED
Feeding	Vdc	5
Voltage feeding ports		DC Jack 3,5mm / ANT
Consumption	mA	<50
Infrared transmitter (RRC)		
Feeding	Vdc	5
Voltage feeding ports		DC Jack 3,5mm
Consumption	mA	<50

Reference		IR W2
Code		124008
Infrared frequencies	KHz	33 - 60
Modulation		FSK
RF frequency	MHz	433,92
Maximum distance*	m	50
Voltage	Vdc	5
Feeding	Vac / Hz	100~240 / 50~60
Total consumption	W	0,5

# PROFESSIONAL MODULATORS

## CM 2AV-T

REFERENCE	CM 2AV-T
Code	082025
<b>Inputs</b>	
Number of video inputs	2 x CVBS
Video resolution mode	PAL (720x576) / NTSC (720x480)
Video compression	MPEG 2
Number of audio inputs	2 x audio stereo / 0.5-2.5 Vpp
Sample rate	48 KHz
Audio compression	MPEG1, LAYER II
DVB processing	Insertion of table PAT, PNT, SDT, NIT
Configuration	Program name, SID, LCN, NETWORK NAME, TSD, ONID, NID, VERSION NIT, LCN, PMT
<b>Output</b>	
Number of outputs	1 + loop-through (-1,5 dB)
Maximum output level	95 dB $\mu$ V
Output regulation	20 dB (by software)
Output frequency	170-230 MHz + 470-862 MHz
Output MUXES	1 COFDM
Channel bandwidth	7 MHz (VHF) / 8 MHz (UHF)
COFDM modulation mode	2K / 8K
Constellation - FEC COFDM	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/4, 1/8, 1/16, 1/32
MER	> 32dB
<b>Various</b>	
Programming system	PC software "CM management" through USB cable connected to power supply FA 524
Working voltage	5 Vdc
Current consumption	1,2 A
Temperature margin	0 - 40°

- CM multifunction headend 2 A/V encoder to COFDM/DTT
- 2 audio/video inputs (CVBS)
- COFDM output
- Programming via PC software (CM management)
- Built-in remote control inside each module.  
Management via power supply FA 524

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# PROFESSIONAL MODULATORS

## CM 4AV-TC

- CM multifunction headend 4 A/V encoder
- 4 audio/video inputs (CVBS)
- COFDM output
- Programming via PC software (CM management)
- Built-in remote control inside each module.  
Management via power supply FA 524

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Reference	CM 4AV-TC
Code	082003
Inputs	
Number of video inputs	4 x CVBS
Video resolution mode	PAL (720x576) / NTSC (720x480)
Video compression	MPEG 2
Number of audio inputs	4 x audio stereo / 0.5-2.5 Vpp
Sample rate	48 KHz
Audio compression	MPEG1, LAYER II
DVB processing	Insertion of table PAT, PNT, SDT, NIT
Configuration	Program name, SID, LCN, NETWORK NAME, TSD, ONID, NID, VERSION NIT, LCN, PID, PMT, PID VIDEO, PID AUDIO
Output	
Number of outputs	1 + loop-through (-1,5 dB)
Maximum output level	95 dB $\mu$ V
Output regulation	20 dB (by software)
Output frequency	170-230 MHz + 470-862 MHz
Output MUXES	1 COFDM or 1 QAM
Channel bandwidth	7 MHz (VHF) / 8 MHz (UHF)
COFDM modulation mode	2K / 8K
Constellation - FEC COFDM	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/4, 1/8, 1/16, 1/32
Constellation- S/R QAM	16, 32, 64, 128, 256 QAM (EN 300 429) - 4,00 - 6,96 Msps
MER	> 35dB
Various	
Programming system	PC software "CM management" through USB cable connected to power supply FA 524
Working voltage	5 Vdc
Current consumption	2 A
Temperature margin	0 - 40°

# PROFESSIONAL MODULATORS

## CM 4HD-T

- Module QUAD (4 INPUTS) to DVB-T
- FLEX output 2 mux. Modulation of each output channel at any frequency
- Adjustment of coding parameters
- Flexible service remultiplexing on each output MUX
- SID remapping
- LCN / LCN HD Insertion
- High output level
- Programming via Software PC "CM Management"
- Configuration cloning and reports
- Remote control integrated in the FA 524 source using CM KEY

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<b>Reference</b>		<b>CM 4HD-T</b>
Code		082022
<b>Inputs</b>		
Number of inputs		4 (A, B, C, D)
HDMI		
Video / Bitrate	- / Mbps	H.264 / 5 - 15
Audio / Bitrate	- / Kbps	AAC-LC, MPEG1-L2 / 128 - 384
Maximum resolution		1080p
<b>Output</b>		
Number of outputs		1
Mix port	dB	<1,5
Output frequencies	MHz	170 - 862
Maximum output level	dB $\mu$ V	95
Output regulation	dB	20
RF Output channels		2
Channel bandwidth	MHz	7 (VHF) / 8 (UHF)
COFDM Modulation mode		2K
COFDM Constellation		QPSK / 16QAM / 64QAM
FEC		1/2, 2/3, 3/4, 5/6, 7/8
Guard Interval		1/4, 1/8, 1/16, 1/32
MER	dB	>32
<b>GENERAL</b>		
Local Programming		Por cable USB / RJ45 (LAN)
Remote programming		Por RJ45 (Internet) (CM Key)
Feeding	Vdc	5
Consumption	mA	2400
Operating temperature	°C	0 - 40



# PROFESSIONAL MODULATORS

## CM 4HD-TC

- 4 HDMI inputs (HD)
- Resolution of each input up to 1080p
- COFDM / QAM programmable output. 2 adjacent mux
- Programming via PC software (CM management)
- Built-in remote control inside each module.  
Management via power supply FA 524

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REFERENCE	CM 4HD-TC
Code	082004
Inputs	
Number of inputs	4 x HDMI
Video resolution mode	720 p - 1080p
Video compression	H.264 - BIRATE 5-15 Mb/s
Sample rate audio	HDMI (32 kHz / 44.1 kHz / 48 kHz)
Audio compression	AAC-LC - bitrate 128-384 Kb/s
DVB processing	PAT, PMT, SDT, NIT, EIT
Configuration	Program/network name , SID, LCN, TSID, ONID, NID, EIT, versions, audio, video PIDs...
Output	
Number of outputs	1 + loop-through (-1,5 dB)
Maximum output level	95 dB $\mu$ V
Output regulation	20 dB (by software)
Output frequency	170-230 MHz + 470-862 MHz
Output MUXES	2 COFDM or 2 QAM (adjacents)
Channel bandwidth	7 MHz (VHF) / 8 MHz (UHF)
COFDM modulation mode	2K / 8K
Constelaltion - FEC COFDM	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/4, 1/8, 1/16, 1/32
Constelaltion - S/R QAM	16, 32, 64, 128, 256 QAM (EN 300 429) - 4,00 - 6,96 Msps
MER	> 35dB
Various	
Programming system	PC software "CM management" through USB cable connected to power supply FA 524
Working voltage	5 Vdc
Current consumption	3 A
Temperature margin	0 - 40°

# PROFESSIONAL MODULATORS

## CM 8HD-TC

REFERENCE	CM 8HD-TC
Code	082035
Inputs	
Number of inputs	8 (A1, B1, A2, B2, C1, C2, D1, D2)
Video resolution mode	720 p - 1080p
Video compression	H.264 - BIRATE 5-15 Mb/s
Sample rate audio	HDMI (32 kHz / 44.1 kHz / 48 kHz)
Audio compression	AAC-LC - bitrate 128-384 Kb/s
DVB processing	PAT, PMT, SDT, NIT, EIT
Configuration	Program/network name , SID, LCN, TSID, ONID, NID, EIT, versions, audio, video PIDs...
Output	
Number of outputs	1 + loop-through (-1,5 dB)
Maximum output level	95 dB $\mu$ V
Output regulation	20 dB (by software)
Output frequency	170-230 MHz + 470-862 MHz
Output MUXES	2 COFDM or 2 QAM (adjacents)
Channel bandwidth	7 MHz (VHF) / 8 MHz (UHF)
COFDM modulation mode	2K / 8K
Constelaltion - FEC COFDM	QPSK/16QAM/64QAM - 1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/4, 1/8, 1/16, 1/32
Constelaltion - S/R QAM	16, 32, 64, 128, 256 QAM (EN 300 429) - 4,00 - 6,96 Msps
MER	> 35dB
Various	
Programming system	PC software "CM management" through USB cable connected to power supply FA 524
Working voltage	5 Vdc
Current consumption	3 A
Temperature margin	0 - 40°

- 8 HDMI inputs (HD)
- Resolution of each input up to 1080p
- COFDM / QAM programmable output. 4 adjacent mux
- Programming via PC software (CM management)
- Built-in remote control inside each module. Management via power supply FA 524





# ACCESSORIES

## FA 524

- High-efficiency power supply
- With protection fuses against mains overload
- It allows the programming and remote control of the full headend



REFERENCE	FA 524
Code	080003
Input voltage	90-253 Vcc
Input frequency	50-60 Hz
Output voltage	24 Vdc
Maximum power	5A
Potencia máxima	120W
Type	Modular
Working temperature	0-45°
Programming mode	USB Connector
Programación	Via PC
Módulo de telecontrol	RJ45 Connector

## CM PR / FA 55

- It allows the programming of CM Headend modules.
- Programming via CM Management (USB port).
- Programming via CM Management in remote (LAN / Internet).
- Feeding from CM module already fed via FA 55 PSU.

REFERENCE		CM PR
Code	-	082014
Ports	-	Ethernet, USB (Tipo B)
Feeding	-	14 PIN HE bus.
Dimensions	mm	115x28x48

REFERENCE		FA 55
Code	-	082010
Feeding	Vac / Hz	100-240 / 46-63
Output voltage	Vdc	5
Max. output current	A	5



CM PR  
+  
FA 55

# REMOTE ACCESS

## CM KEY

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- The CM Key allows remote connection to the FA 524 power supply through the CM Management program (Software that allows the programming of the CM headend via USB cable or remotely). Being connected to the power supply, it's possible to have access to all modules connected to the power supply provided it is connected to the Internet. A username and password are necessary to identify the user with the remote server. From this key and password (which identifies the installation company) will be possible to see all the associated existing installations.

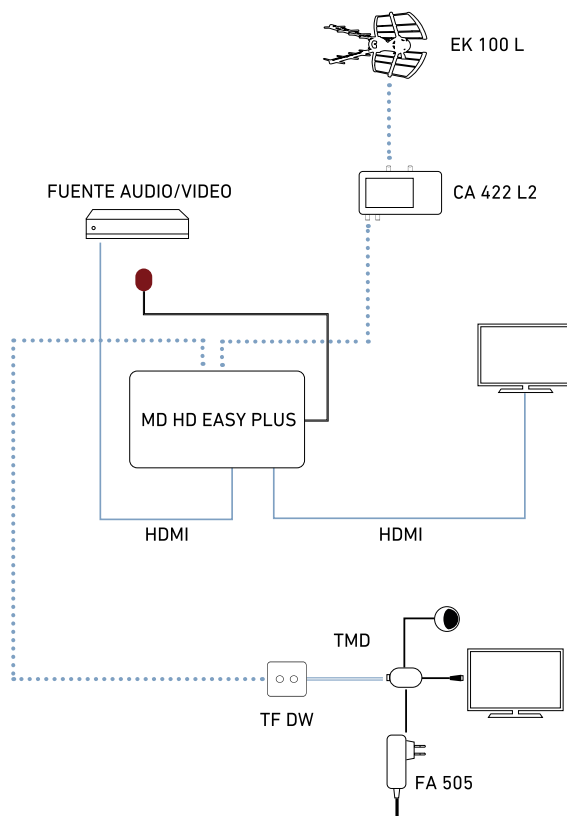
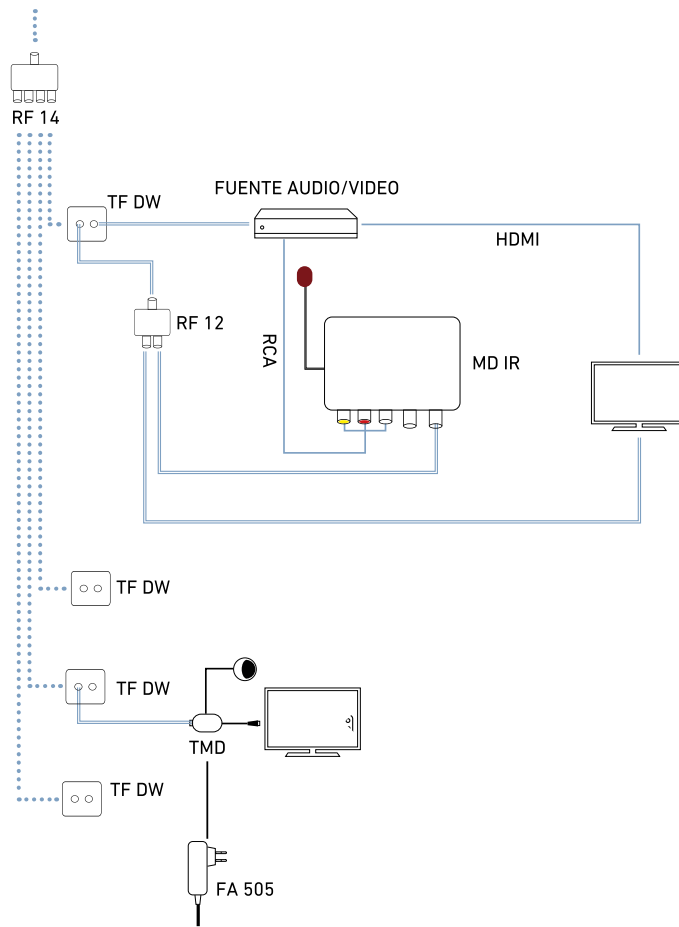


CM HEADEND

## CM KEY

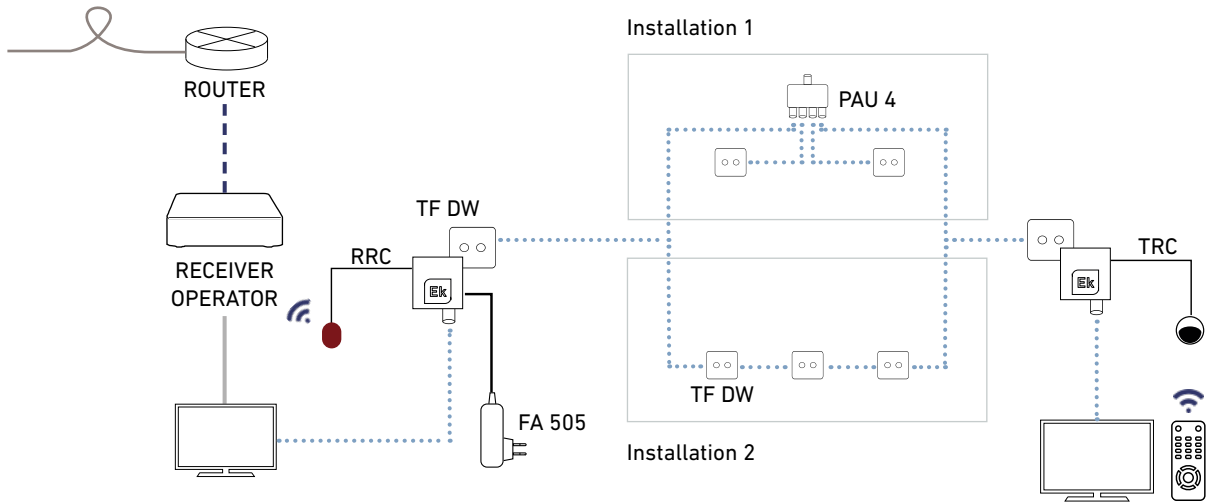
Remote  
management  
key

# EXAMPLES OF MODULATORS APPLICATIONS + TMD



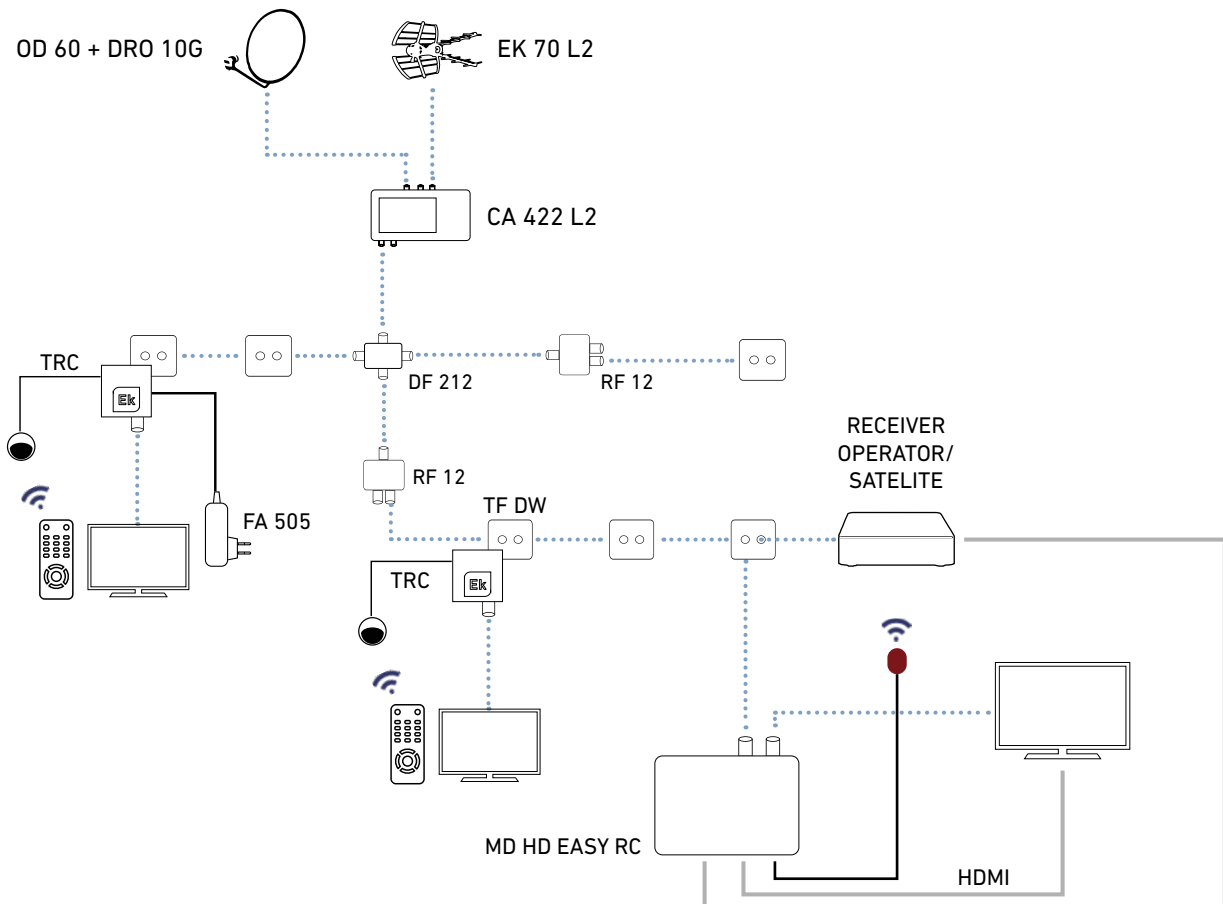
## IR-RC INSTALLATION EXAMPLE

With the IR-RC kit you can transmit the remote control signal between two rooms. With the high dynamic range between transmitter and receiver, it is possible to cover coaxial cable installations with high losses. A second power supply (included in the kit) is necessary if the coaxial installation does not allow current to flow.



## MD HD EASY RC WITH TRC INSTALLATION EXAMPLE

With the Modulator + TRC set it is possible to distribute the signal of the satellite receiver (or IP) to the entire coaxial network and control the receiver from other rooms. The CRT can be powered from the MD HD EASY RC. With its high dynamic range it is possible to cover installations with high losses.





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