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TRIAX MOD 103T Multi Switch Modulator

TRIAX MOD 103T Multi Switch Modulator User Manual

Contents

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User Manual

Modulator / Modulateur MOD 103T

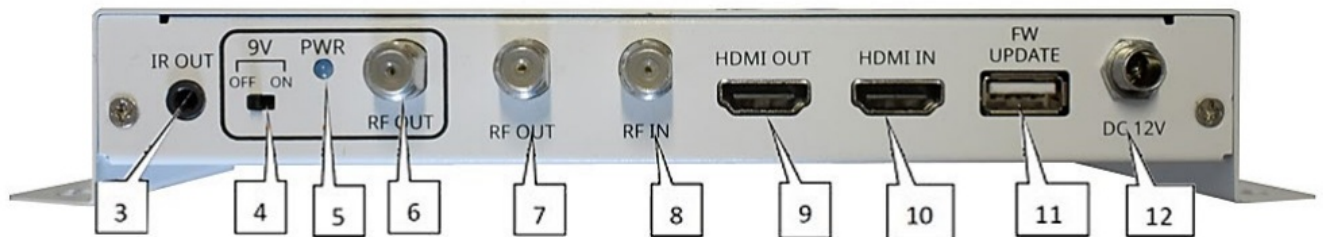| Article			Article no.
MOD 103T	Modulator / Modulateur		300128
Version	B	Date 11/2018	EN/FR

- **triax.com**

Introduction

The MOD103T modulator has an HDMI input with local loop through, and a COFDM output which is combined with the RF input. The HDMI input content can be supplied by a number of sources, Blu-ray player, Satellite Set top box, CCTV etc. The input signal is modulated as a COFDM output and can be distributed to a number of TV's over an existing private coaxial network. It has an HDMI loop through, to connect to the local TV, and can also combine existing RF with the modulated output channel on RF Out 1 and RF Out 2. The modulator has adjustable level control to balance the COFDM channel with the incoming RF channels. The source Set top box can be controlled from another TV location, via the IR remote control over the coaxial cable, using an IR transmitter and a digital link. The coaxial network must be connected to the RF Out, with the 9vdc able to pass through the network, to remotely power the digital link. The MOD103T Modulator can be set up, via the front panel and LCD screen. Please see below for full instructions.

What's in the box

- MOD103T DVB-T modulator w/ IR return path
- 12V Power adaptor
- IR emitter
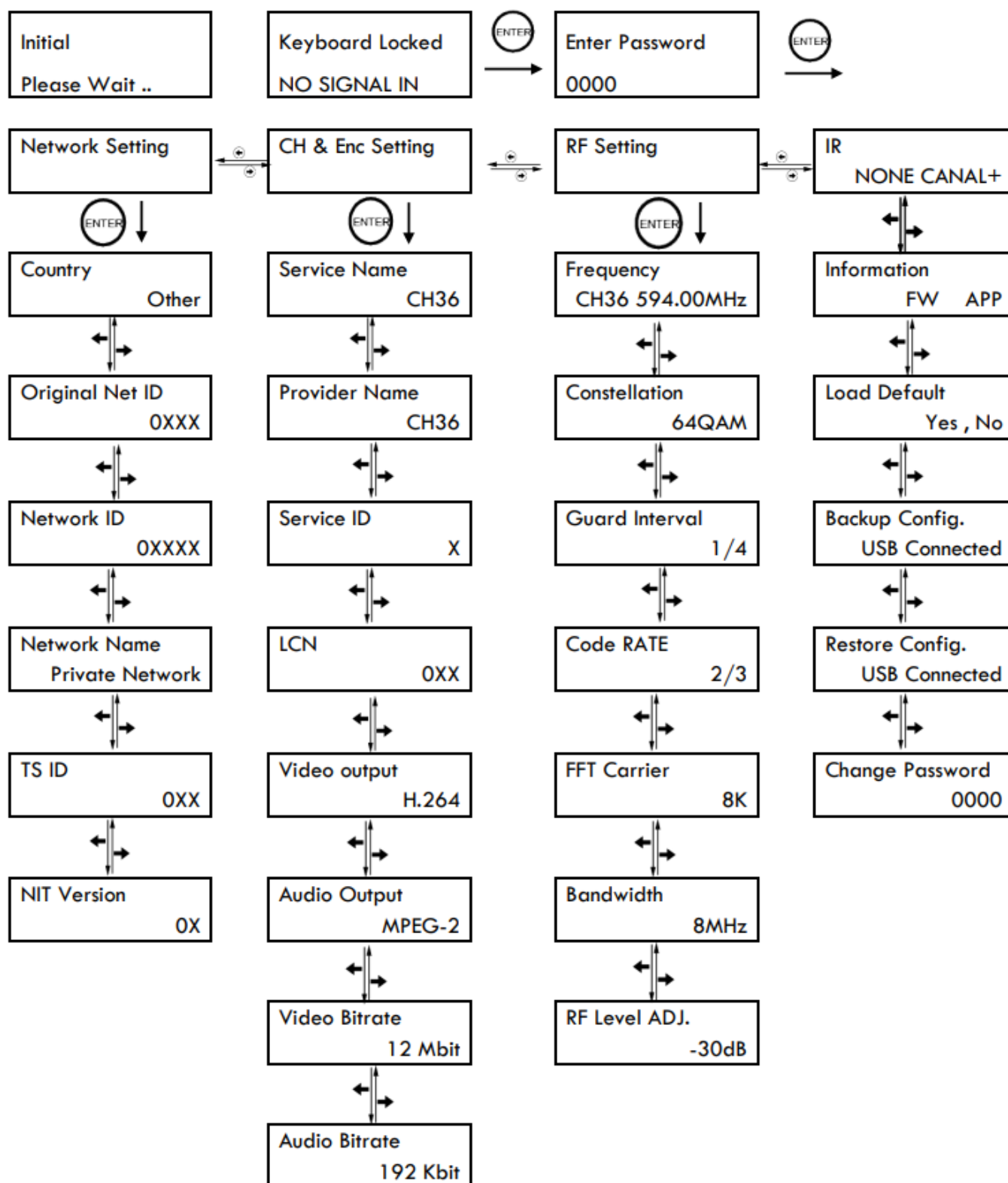- IR receiving eye

Interface

1. Display (LCD)
2. Menu navigation keys
3. IR Output for IR emitter
4. 9 Vdc Switch
5. LED (9 Vdc indicator)
6. RF COFDM Output (IR return w/ 9 Vdc)
7. RF COFDM Output
8. RF IN (w/ LTE filter)
9. HDMI Out
10. HDMI IN
11. USB: S/W update
12. 12 Vdc power adapter (incl)

Set up

Instruction on how to set up the modulator using the front panel LCD display
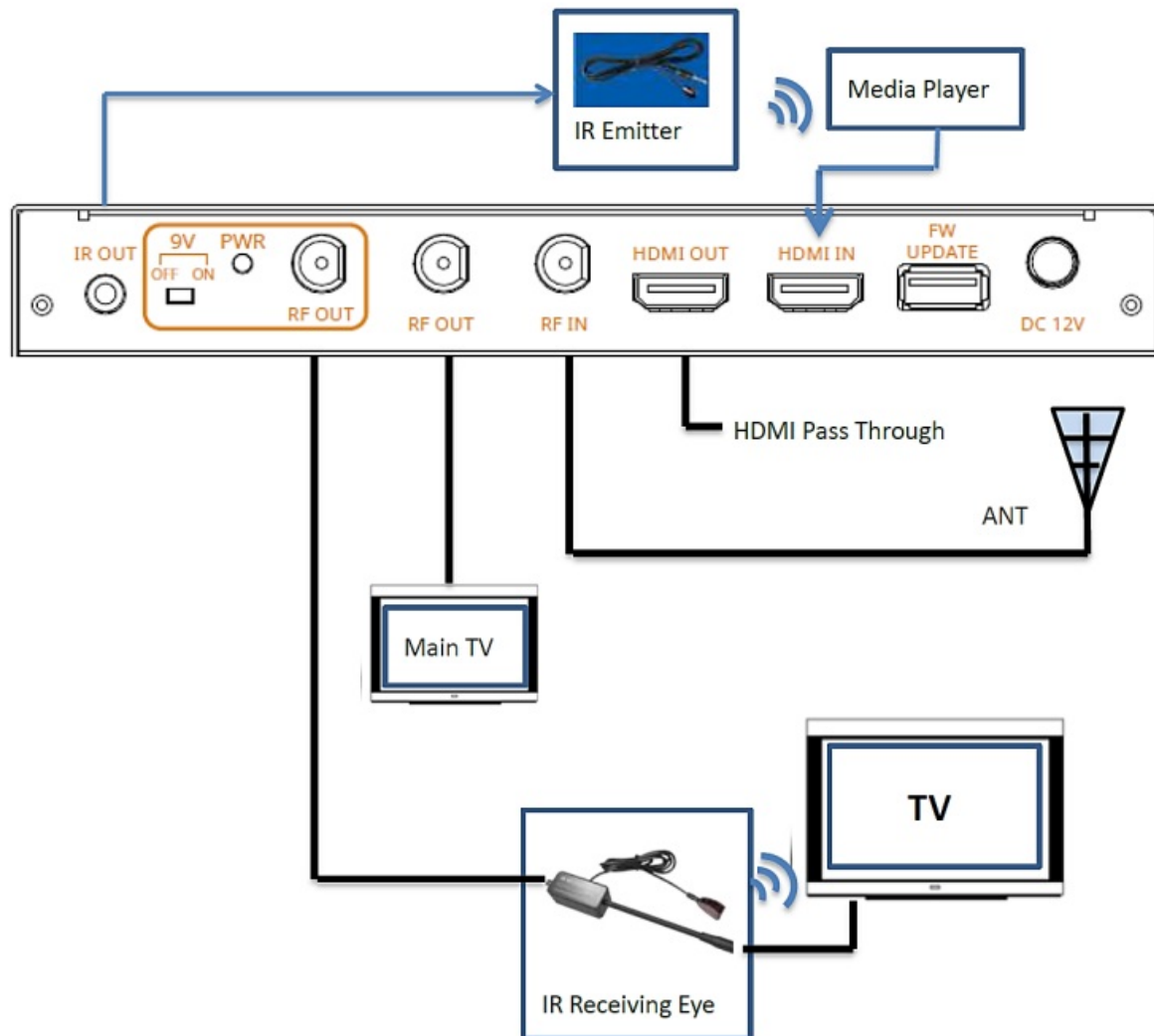
Initial Please Wait ..	Keyboard Locked NO SIGNAL IN	Enter Password 0000	

Network Setting	CH & Enc Setting	RF Setting	IR NONE CANAL+
Country Other	Service Name CH36	Frequency CH36 594.00MHz	Information FW APP
Original Net ID 0XXX	Provider Name CH36	Constellation 64QAM	Load Default Yes , No
Network ID 0XXXX	Service ID X	Guard Interval 1/4	Backup Config. USB Connected
Network Name Private Network	LCN 0XX	Code RATE 2/3	Restore Config. USB Connected
TS ID 0XX	Video output H.264	FFT Carrier 8K	Change Password 0000
NIT Version 0X	Audio Output MPEG-2	Bandwidth 8MHz	
	Video Bitrate 12 Mbit	RF Level ADJ. -30dB	
	Audio Bitrate 192 Kbit		

- Default password – 0000

- Press OK and ▲ ▼ ◄ ► to make any adjustments or changes, confirm changes by pressing OK again.

Installation

Typical installation

Note

- 9 Vdc power may not be required if the RF output is connected to a distribution amplifier with IR pass capability.

RF status

- RF on/off User selectable
- RF level adjustment 0…-30dB (65dBuV…95dBuV)

Encoder settings

- Audio type User selectable AAC / MPEG
- Video bit rate User selectable 2, 4, 6, 8, 10, 12 Mbit (default)

Service settings

- Service name User editable (TV program name)
- Service ID User editable from 1…65535

Channel settings

- **Channel** User selectable RF output channel (preset UK channel plan)
- **LCN** User editable 1…999 (Logical Channel Number)

Stream settings

- **OrgNetwork ID Network ID TS ID**
    - User editable from 1…65535
- **Network name**
    - User editable

Parameter settings

- Constellation
- QPSK, 16QAM, 64QAM
- Video bitrate 2, 4, 6, 8, 10, 12 Mbit
- Code rate (FEC) 1/2, 2/3, 3/4, 5/6, 7/8
- Guard interval 1/4, 1/8, 1/16, 1/32
- Transmission mode 2K / 8K FFT
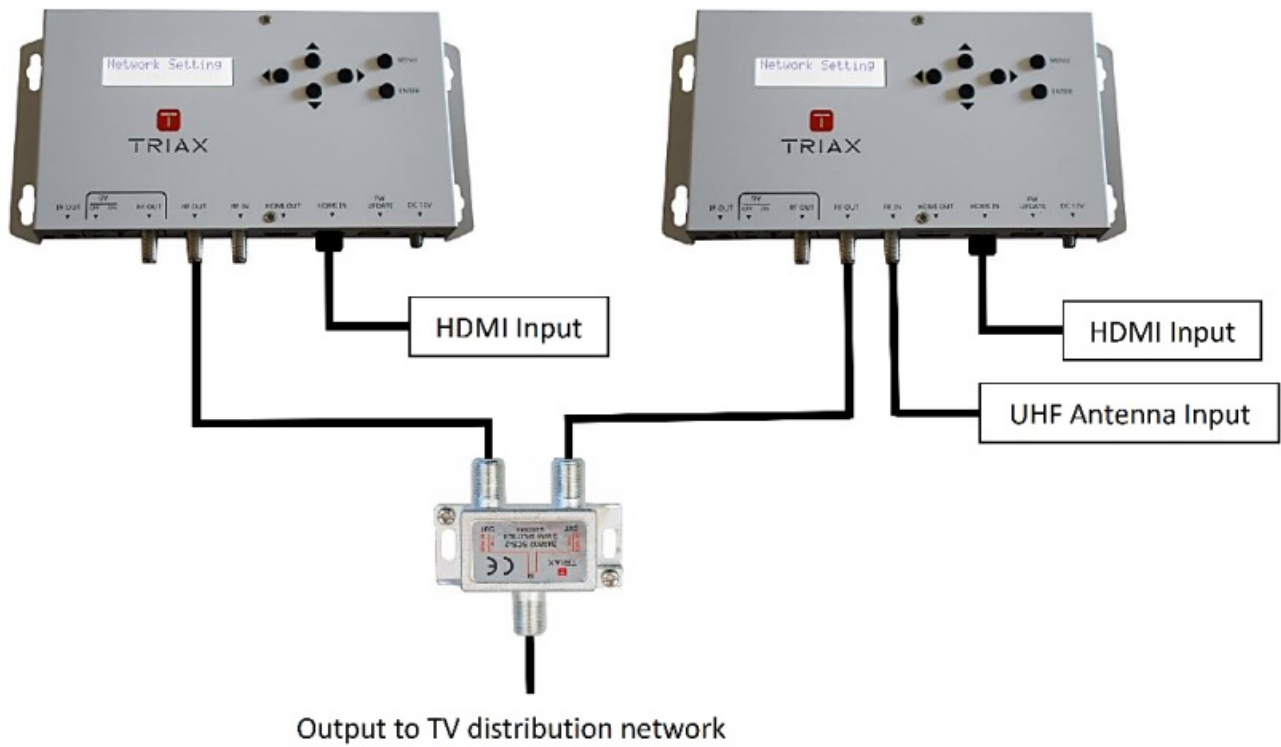- Bandwidth 6, 7, 8 MHz

Password settings

- **Old password** Enter the old password
- **New password** Enter a new password
- **Confirm new password** Enter new password again

Other settings

- **Language** User selectable EN, FR
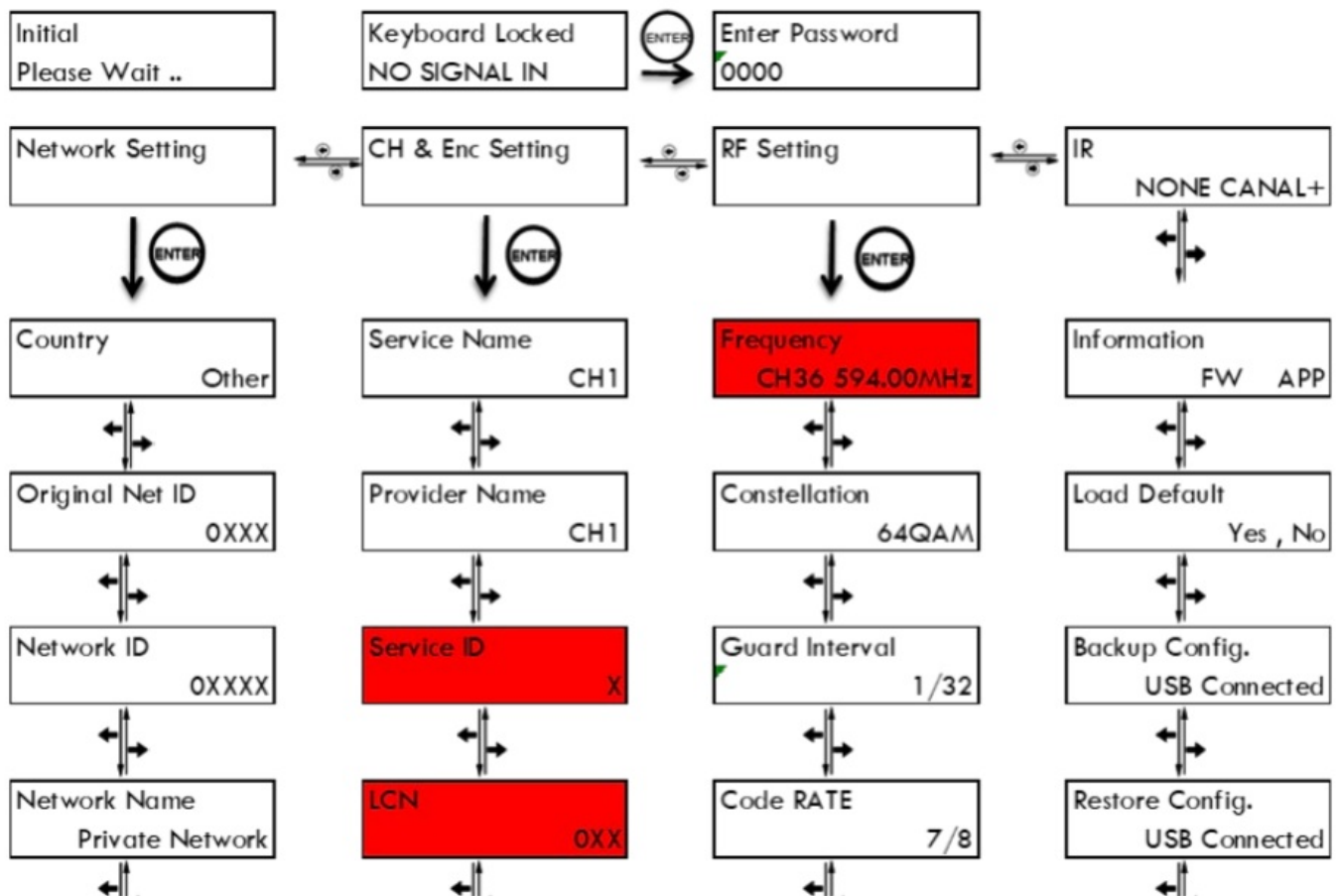
Connect more modulators

Connecting of 2 or more modulators together

Output to TV distribution network

Two, or more modulators can be combined together and the signal can then be distributed over the TV distribution network. There are a few parameters that have to be changed on the modulators to enable the TV's to see all the channels.

- Each modulator must have a different output channel/frequency.
- Each modulator must have a different Local Channel Number (LCN).
- Each modulator must have a different Service ID Number.

Note: if IR control is required, use RF2 out

Initial	Keyboard Locked	ENTER →	Enter Password
Please Wait ..	NO SIGNAL IN		0000

Network Setting	← ⊙ →	CH & Enc Setting	← ⊙ →	RF Setting	← ⊙ →	IR
						NONE CANAL+

↓ ENTER (Network Setting) ↓ ENTER (CH & Enc Setting) ↓ ENTER (RF Setting)

Country	Service Name	**Frequency**	Information
Other	CH1	**CH36 594.00MHz**	FW APP

Original Net ID	Provider Name	Constellation	Load Default
0XXX	CH1	64QAM	Yes , No

Network ID	**Service ID**	Guard Interval	Backup Config.
0XXXX	**X**	1/32	USB Connected

Network Name	**LCN**	Code RATE	Restore Config.
Private Network	**0XX**	7/8	USB Connected

Modulator default settings and options

Modulator Setting	Description	Default value	Option
RF Settings	RF On/off	On	On/Off
	Output power	65dBuV	65…95dBuV (1dB steps)
Encoder Settings	Audio Type	AAC	AAC / MPEG
Service Settings	Service name	CH 36	Edit Service Name
	Service ID (1…65535)	256	Enter value : 1…65535
Channel Settings	Channel	CH36	CH 21 ~ 69
	LCN	900	Enter value : 1…999
Stream Settings	Orgnetwork ID (1…65535)	9018	Enter value : 1…65535
	Network ID (1…65535)	8350	Enter value : 1…65535
	TS ID (1…65535)	8350	Enter value : 1…65535
	Network Name	TRIAX	Edit Network Name
Parameter Settings	Constellation	64QAM	QPSK/16QAM/64QAM
	Code Rate	5/6	5/6, 7/8
	Guard Interval	1/8	1/4,1/8,1/16,1/32
	Transmission Mode	8K	2K, 8K
	Bandwidth	8	7/8

Specifications

MOD103T Specifications	
Source input	
Input channel	1
video	HDMI 1.4
Video system	480i/576i/720p/1080i/p
Audio	HDMI
RF output	
Type	1 multiplex DVB-T with a digital service
Frequency	177…858 MHz

MER	30dB Min.
Output level	95dBµV (max)
RF Level adjustment	1dB per step
Attenuation step	0…30dB
Compression	
Video	H.264 baseline profile level 4.0
Video resolution	1080p 25/30 max
Video bit rate	12 Mbps. Max
Audio	MPEG-2 / AAC
Audio bit rate	192 Kbits/s
DVB insertion tables	SDT, NIT
Editable field	Service Name, Provider Name, Service ID, LCN, NIT Version, TS I D, Network name, Network ID, Original Network ID, Country
Connections	
HDMI IN	HDMI IN
HDMI OUT	HDMI pass through
RF output	2 RF outputs (one providing accessory power supply 9 Volts DC for IR pass)
DC switch	Power supply 9 Volts DC for IR pass
RF INPUT	RF combiner (with LTE filter)
USB	Firmware upgrade
IR OUT	IR emitter output
General	

Modulation	Standard DVB-T (ETSI EN 300 744) Constellation : QPSK, 16QAM, 64QAM Guard interval : 1/4, 1/8, 1/16, 1/32 Code rate : 1/2, 2/3, 3/4, 5/6, 7/8 FFT Carrier Mode : 2K, 8K Bandwidth : 6MHz, 7MHz, 8MHz
Power supply	12 VDC
Display	LCD panel, 2×16 characters
Dimensions	220 x x106 x 32mm
Environmental for operating	Temperature: 5°C – 40°C Relative humidity : 80%@30°C

Information and manuals:

- **triax.comtriax.dk-triax.se-triax-gmbh.de-triax.fr-triaxmultimedia.es-triax.uktriax.at–triax.hu**

Documents / Resources

	TRIAX MOD 103T Multi Switch Modulator [pdf] User Manual MOD 103T, 300128, MOD 103T Multi Switch Modulator, MOD 103T, Multi Switch Modulator, Switch Modulator, Modulator

References

- **triax.at steht zum Verkauf**
- **TRIAX | Connecting The Future**
- **User Manual**