

## TV-10D TRANSMITTER



### Main information

TV-10D is professional DVB-T/H exciter suited for high quality terrestrial broadcasting in VHF bands III or UHF bands IV-V. Performance and flexibility of TV-10D outperforms base requirements of today's Digital Terrestrial Television market.

### Features

- Integrated GPS receiver
- Linear and non-linear pre-correction to optimize transmitter performance  
Adaptive pre-correction(option)
- All settings are available via front panel  
Multifunctional digital display  
Local control
- Remote control via Ethernet and GSM
- External amplifiers are available in  
modules n x 300 W rms (H-series)  
n x 600 W rms (V-series)
- Powerful echo-canceller with combination of digital-precorrector grants to this device ultimate performance and makes it ideally suited for SFN design in GAP-filler mode.

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### Signal processing

<b>Modulation:</b>	according to EN 300 744 and EN 302 304
<b>IFFT:</b>	2K, 4K, 8K
<b>Interleaver:</b>	Native as well as in-depth and native
<b>Guard intervals:</b>	1/4, 1/8, 1/16, 1/32
<b>Code rates:</b>	1/2, 2/3, 3/4, 5/6, 7/8
<b>Constellations:</b>	QPSK, 16-QAM, 64-QAM
<b>Hierarchical modes:</b>	alpha-1, alpha-2, alpha-4
<b>Network mode:</b>	MFN and SFN
<b>Bandwidth:</b>	8 MHz, 7MHz, 6 MHz and 5 MHz

### Electrical specifications inputs

#### ASI inputs

<b>Input data:</b>	multiplexed MPEG-TS packet size 188 or 204 bit rate up to 31.67 Mbps
<b>ASI inputs:</b>	2xBNC, 75 Ohm,

#### Internal GPS

<b>Connector:</b>	BNC, 50 Ohm
<b>Frequency:</b>	1.575 GHz
<b>Antenna net gain range:</b>	0 to +32 dB
<b>Antenna:</b>	Passive or active antenna

#### External clock reference

##### (carrier frequency and SFN timing)

<b>Connector:</b>	BNC, 50 Ohm/ > 1 kOhm, selectable
<b>Frequency:</b>	10 MHz
<b>Level:</b>	100 mV - 3 Vpp

##### Time reference (SFN timing)

<b>Connector:</b>	BNC, 50 Ohm/ > 1 kOhm, selectable
<b>Frequency:</b>	1 PPS
<b>Level:</b>	0 - 5 V
<b>Trigger:</b>	Selective rising/falling

### Output

<b>Frequency range:</b>	VHF, 174 - 230 MHz (band III) or UHF, 470 -860 MHz (band IV-V)
<b>Output power:</b>	10W ± 0.5 dB, user adjustable
<b>Impedance:</b>	50 Ohm
<b>Connector:</b>	N-female

### General parameters

<b>Temperature range:</b>	+5 ... +45 °C
<b>Humidity:</b>	90% RH
<b>Power supply voltage:</b>	220 V±10% 50Hz

<b>Power consumption:</b>	max. 140W
<b>Dimensions:</b>	2U 19" Rack
<b>Weight</b>	12 kg

### Pre-correction

Supports non-linear(gain and phases vs. power level) and linear(level and group delay response vs. frequency) pre-correction. As option adaptive pre-correction is available.

#### Non-linear correction:

<b>Curve formats:</b>	S21, phase, V0/V1
<b>Amplitude scale:</b>	Linear or logarithmic
<b>Correction points:</b>	Max 256, user de ned-position
<b>Gain correction:</b>	Max 12 dB
<b>Phase correction :</b>	-6 to +30 deg

#### Linear correction:

<b>Correction points:</b>	21
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### Repeater mode

<b>Input connector:</b>	N-female, 50 Ohm
<b>Input fr. range:</b>	30 - 1000 MHz
<b>Input level:</b>	-77 dBm to -7 dBm user de ned-position
<b>Input noise gure:</b>	< 8 dB @max gain (typically 6.5 dB)
<b>Selectivity:</b>	> 65 dB attenuation outside ± 4.2 MHz relative to center frequency