

TV-05D EXCITER/REPEATER



Main information

TV-05D is universal DVB-T/H broadcasting platform which can be used as exciter/GAP-filler/retransmitter suited for high quality terrestrial broadcasting in VHF band III or UHF bands IV-V. Performance and flexibility of TV-05D outperforms base requirements of today's Digital Terrestrial Television market. Depending on hardware configuration TV-05D can operate in these modes:

- Standard DVB-T/H exciter
- Repeater

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-canceler with combination of digital-precorrector grants to this device ultimate performance and makes it ideally suited for SFN design in GAP-filler mode.

TV-05D EXCITER

Signal processing

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

Electrical specifications inputs

ASI inputs

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

Internal GPS

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

External clock reference

(carrier frequency and SFN timing)

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

Time reference (SFN timing)

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

Output

Frequency range:	VHF, 174 - 230 MHz (band III) or UHF, 470 - 860 MHz (band IV-V)
Output power:	100mW \pm 0.5 dB, user adjustable
Impedance:	50 Ohm
Connector:	N-female

General parameters

Temperature range:	+5 ... +45 °C
Humidity:	90% RH
Power supply voltage:	220V \pm 10% 50Hz

Power consumption:	max. 75W
Dimensions:	1U 19" Rack
Weight	5 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:

Curve formats:	S21, phase, VO/V1
Amplitude scale:	Linear or logarithmic
Correction points:	Max 256, user dependent-position
Gain correction:	Max 12 dB
Phase correction :	-6 to +30 deg

Linear correction:

Correction points:	21
---------------------------	----

Repeater mode

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

