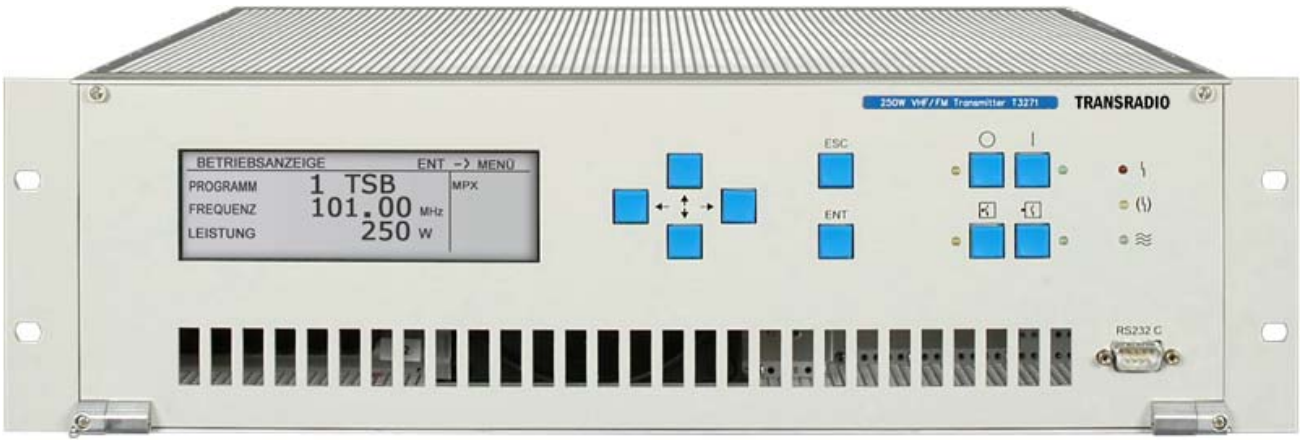
250 W VHF/FM Transmitter T3271



Highlights of the VHF/FM Transmitter T3271

- Simple and intuitive menu control via graphic display
- Service friendly design with plug-in Eurocard modules
- 19" slide-in technology of height 3 U
- All important functions and status information of the transmitter are simultaneously shown on the graphic display
- Prepared for all reserve concepts
- Directly modulated synthesizer with 10 kHz channel separation
- Integrated stereo encoder with deviation limiter
- Proven MOSFET technology of the power transistors
- Excellent reliability due to low junction temperatures of < 90° C at T (ambient) = 25° C
- Very good quality data in with respect to unweighted- and weighted S/N ratio, stereo crosstalk, frequency response and non-linear distortion
- Protective circuits against overvoltage, fan failure, overtemperature and mismatch
- RF output power continuously adjustable between 50 W and 250 W in 1 W steps

Technical Data

RF output connector	N, 50 Ω
Remote interfaces	Standard: RS232 Option: Relay, BITBUS, SNMP or HTTP
Operating mode (freely selectable)	Mono, stereo, MPX, (L+R)/2
Number of preset frequencies	6
AF patching for the left- and right channel	Option, LEMO-Triaxial
Level controller for 40 kHz deviation	- 5.25 dBm ... + 12.5 dBm, in 0.25 dB steps
Setting accuracy	≤ 0.1 dB
Pilot tone level adjustable	- 25 dBu ... - 5 dBu
RDS input level adjustable	- 23 dBu ... – 9.5 dBu
SCA input level adjustable	- 23 dBu ... – 9.5 dBu
Preemphasis (on/off switchable)	25, 50, 75 µsec
Cooling	Internal fan
Operational in the temperature range	- 10° C ... + 50° C
Humidity	to 95 %, without dew
Dimensions W x H x D in mm	483 x 132 x 370
Weight	10 kg

The VHF/FM transmitter fulfils the national standards as well as the technical specifications of the ARD (5/ 3.1), the Deutschen Telekom (TS 0216) and ETSI EN 302 018-2.

Transmitter Power		
Output power P_{RF}		250 W
Output power setting range		50 W ... 250 W, continuous
Full power up to VSWR = 1.5		thereafter down regulation of output power
Frequency		
Frequency range		87.5 MHz ... 108 MHz, in 10 kHz steps
Frequency change		< 1 sec
Frequency drift over 3 months		< 300 Hz
Setting accuracy		< 50 Hz
Middle frequency shift during modulation		0 Hz
Deviation instability		< 1 %
Warm-up time		< 5 min
Out-of-band Emission		
0.2 MHz		< - 110 dBc/Hz
0.3 MHz		< - 126 dBc/Hz
Spurious Emission		
Harmonic emissions		< - 80 dBc
Noise power density		< - 150 dBc/Hz
Reverse Intermodulation Products		> 15 dB
Input Impedance		> 2000 Ω or 600 Ω
Linear Distortion		
Stereo cross-talk attenuation		
40 Hz ... 15 kHz		> 45 dB
Amplitude deviation		
40 Hz ... 65 kHz		± 0.1 dB
> 65 kHz ... 76 kHz		± 0.2 dB
100 kHz		- 2 dB ± 0.5 dB
Damping of the 15 kHz low-pass		
40 Hz ... 15 kHz		< 0.2 dB
at 19 kHz		> 50 dB
Non-Linear Distortion		
Distortion factor 40 Hz ... 15 kHz, at 75 kHz deviation		< 0.1 % = - 60 dB
Selective S/N Ratio		
Mono		> 80 dB
Stereo		> 80 dB
Unweighted S/N Ratio (effective peak value)		
Mono		> 72 dB
Stereo		> 72 dB
AM unweighted S/N ratio, asynchronous		> 60 dB
AM unweighted S/N ratio, synchronous		> 60 dB
Weighted S/N Ratio (effective peak value)		
Mono		> 70 dB
Stereo		> 70 dB
AM weighted S/N ratio, asynchronous		> 60 dB
Power Supply		
Voltage range	1/N/PE 115 V	85 V ... 132 V
	1/N/PE 230 V	176 V ... 264 V
Mains frequency		47 Hz ... 63 Hz
Power consumption		525 W at P_{RF} = 250 W
cos φ		> 0.7
Ready after mains failure		< 2 sec

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