MT5600

DVB Terrestrial Modulator

The MT5600 is an ultra compact, third generation terrestrial modulator from TANDBERG Television. Its advanced features ensure ease-of-use, high levels of integration and maximum flexibility.

evolution5000

Business Benefits

- Proven worldwide operation in real DTT network deployments
- Space saving compact 1RU unit
- Simple transmitter integration
- Global network support from 36 to 907MHz
- Support for multi-frequency and single-frequency networks (SFN)
- Global local customer support operations

Application

Digital Terrestrial Broadcasting

The MT5600 is based on core OFDM technology established by TANDBERG Television in live networks. It provides a flexible, effective platform for enhanced terrestrial transmitter functionality.

With very high quality modulation and RF performance combined with flexible integration options this modulator has already proved its large-scale deployment value in many networks.

As a compact and simple unit it is also an ideal platform for trial and test systems.

Base units

M2/MODT/MT5600

- COFDM modulation to ETS 300744 standard
- MFN Operation
- Input bit-rate adaptation
- Near-seamless switching of Transport Stream inputs
- Web browser control and monitoring
- SNMP control and monitoring

Options

IF Output (M2/MODT/IFO7+8MHZ)

- 7/8MHz switchable channel bandwidth
- Variable IF output frequency: 36MHz +/- 1MHz

RF Output (M2/MODT/RFOUT)

- 44 to 907MHz output frequency range – covers the entire world's DVB-T terrestrial broadcasting ranges
- Extremely fine frequency step size of 1/3 Hz
- Very low frequency drift with internal 10MHz reference.
- 0 dBm fixed output level
- TNC output with 50 Ohms impedance
- Low spurious signals and phase noise
- High amplitude flatness, high pre-correction bandwidth, and high output level stability for optimal distortion pre-correction when used with a high-power amplifier

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Options

Digital Pre-Correction (M2/MODT/DPC-OPT)

Wideband digital pre-correction allows for compensation of non-linearity in the transmitter to ensure maximum signal integrity.

- Simple to use configuration tool
- Very wide 18MHz pre-correction bandwidth

SFN Support (M2/MODT/SFN-OPT)

Support for Single Frequency Networks.

- Operation to SFN Standard TS101191
- SFN delay accuracy to +/- 100ns

TANDBERG Television

MT5600

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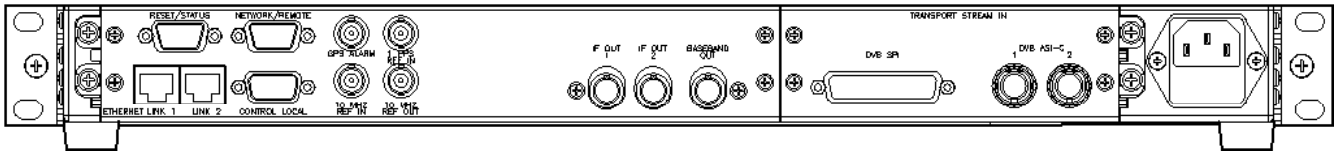
Sample Configuration (base model):



BASEBAND OUPUT	Level 0 dBm BNC 50Ω
IF OUTPUT	Dual Outputs BNC 50Ω 36MHz +/- 1MHz Centre Frequency Tuning resolution: 1Hz Channel bandwidth switchable between 7 & 8MHz 0 dBm output level **Spurious Tones:** > 85 dB below output signal power for 0 to 10MHz > 70 dB below output signal power for 10 to 200MHz **Harmonics:** > 45 dB below output signal **Frequency Stability:** < 0.3 ppm/yr
RF OUTPUT	Single Output TNC 50Ω 44-907 MHz in ⅓ Hz steps 0 dBm output level **Output power drift:** ±0.3 dB maximum with temperature and time **Spurious Tones:** >50 dB typical, 47 dB minimum with respect to the in-band spectrum for frequencies further than 0.4 MHz away from edge of spectrum > 65 dB below total output signal power for 0 to 1.5 GHz **Harmonics:** > 35 dB below output signal **Ouptut Impedance** 50Ω with greater than 16 dB return loss from 35 to 916 MHz
DVB-T SIGNAL BANDWIDTH	7.612 MHz for bandwidth set to 8 MHz 6.660 MHz for bandwidth set to 7 MHz
AMPLITUDE FLATNESS	Typically ±0.2 dB, maximum ±0.4 dB within DVB-T Signal Bandwidth
PRE-CORRECTION BANDWIDTH	18 MHz for 7/8 MHz switchable system bandwidth version

CONTROL	**Front Panel:** 2 Line – 40 character LCD display **Navigation:** 4 cursor Keys 2 function keys **Local:** Via RS-232 control port **Connector:** 9-way D-type **Ethernet:** Dual redundant 10Base T Ethernet Telnet/FTP **Connectors:** 2 x RJ45 **Remote/Network:** Remote Control Protocol **Connector:** 9 way D-type
PHYSICAL AND POWER	1RU 19" rack mounting Wide ranging voltage supply 100-120 Vac and 220-240 Vac Power consumption approx 60W Weight approx 10Kg
ENVIRONMENTAL CONDITIONS	**Operating Temperature:** 0°C to 50°C (32°F to 122°F) ambient with free air flow **Relative humidity:** 0% - 90% (non condensing)
COMPLIANCE	CE marked in accordance with EEC low voltage and EMC directives EN55022, EN50082-1, EN61000-3-2 for EMC and the EN60950 Safety Standard as a minimum where applicable. Also meets other relevant requirements and national standards derived from international requirements on which the above European Standards are based and FCC Pt 15B. Designed to meet US CFR47 FCC Pt 15B Class (July 1996), UL 1950.

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