

100W-200W Single-Channel/Broadband MMDS TV Transmitter

(TL-MDT (B) 211~215)

TL-MDT (B) 211~215 single-channel digital MMDS transmitter sends one channel QAM modulated digital signal to the transmitting antenna for wireless transmission, after feed forward correction, up conversion and channel synthesis. With high redundancy; convenient to install and maintain; with very low phase noise, BER indicator and high reliability as well as good power amplification linearity. All performance of this transmitter is superior to national standard and ministerial standard.

TL-MDTB211~215 Broadband Digital MMDS Transmitter adopts the most advanced digital synthesis technology and super linear broadband power amplification technology at present, with high frequency stability, low phase noise, good power amplification linearity and high redundancy. It is convenient to install and maintain.



Features:

Adopt the most advanced digital synthesis technology and super linear power amplification technology at present, with high frequency stability, low phase noise, good power amplification linearity and high redundancy, convenient to upgrade to digital MMDS transmitter

The exciter adopts SMD components, with excellent high-frequency mini band transport property and RF specification.

The main components of the transmitter adopt imported device with CAD optimizing module design, which has ensured the high quality, high reliability and stability of the system.

Adopt digital-analog high power channel multiplexing synthesis technology; small insertion loss and high out-of-band suppression

With IF output/input interface, which can output the IF signal of this machine, as well as input external IF signal.

Adopt switch voltage regulator for power supply, wide voltage regulation range, and high efficiency

With various kinds of automatic protection functions, such as over voltage, over current, overheat, over excitation, under voltage, over temperature, short circuit, over VSWR, etc. With multiple lightning protection measures; the transmitter has perfect protection device.

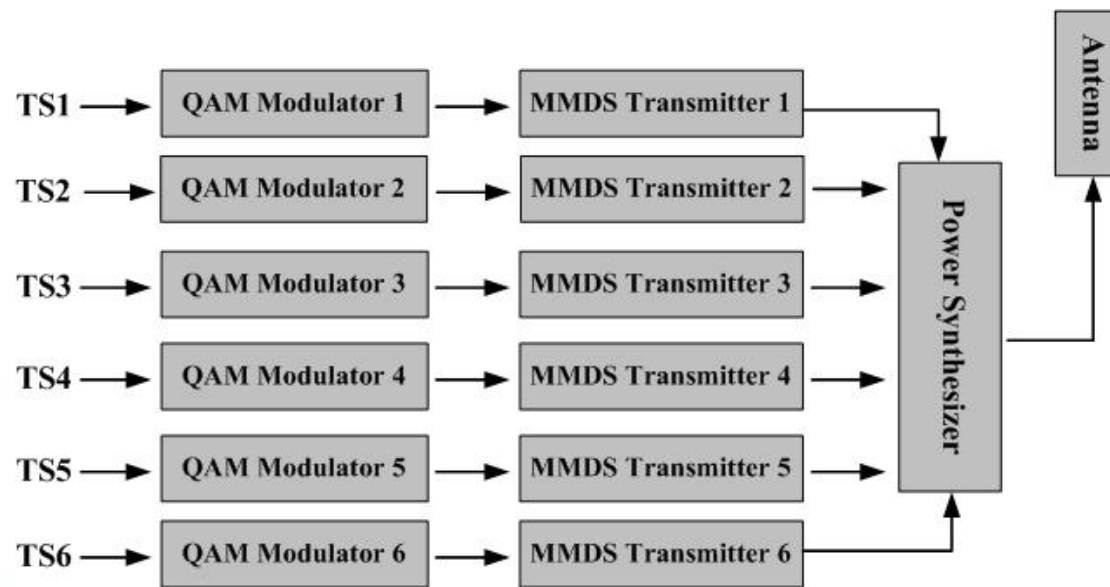
Adopt forced air cooling design, with low power consumption and low noise

With intellectual property rights. Exciter, power amplifier, power synthesizer and monitoring system are all developed and produced by ourselves

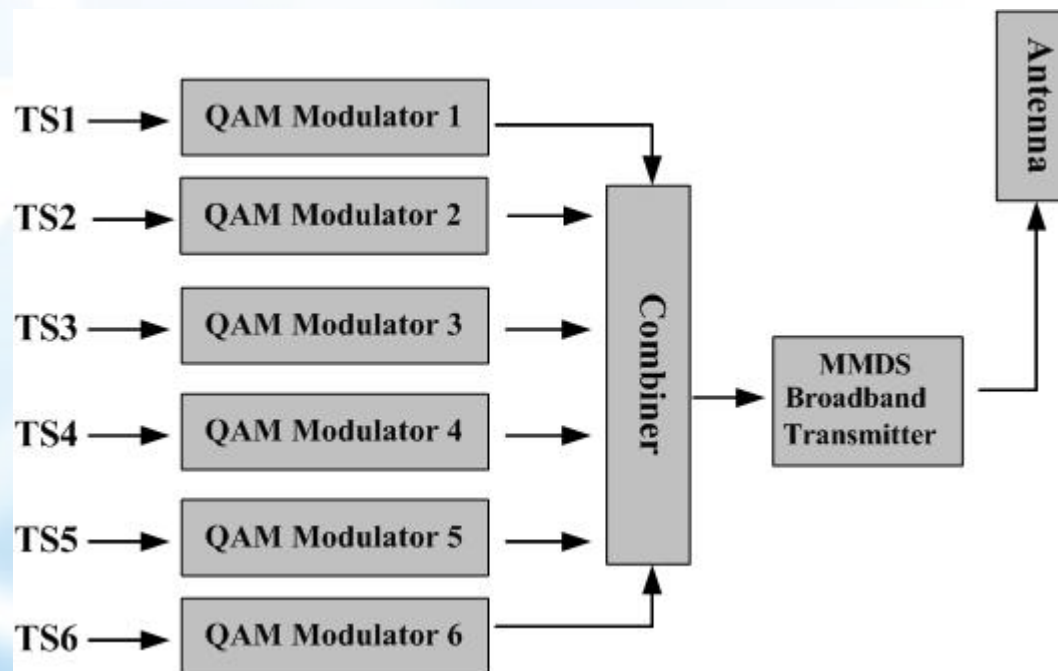
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Functional Block Diagram



MMDS Single-channel Digital TV Transmitter Functional Block Diagram



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Technical Specification:

» Items		» Performance Parameters
» RF Specification	» TV System Standard	» PAL-D or Other System (digital exciter complies with DTMB /DVB-T/DVB-C/MPEG-2 standard, supports QAM16/32/64/128/256 modes)
	» Working Frequency Band	» 2500MHz~2700MHz Any selected channel
	» Rated Output Power	» 10W~200W (P-1 Compression Point Power) or 1W~20W (Digital Power)
	» Carrier Frequency Stability	» $\pm 300\text{Hz}/3\text{months}$
	» LO Phase Noise	» $\leq -110\text{dBc}/\text{Hz}@10\text{KHz}$
	» Video/Audio Power Ratio	» 17dB \pm 7dB adjustable
	» In Band Inter-modulation	» $\leq -70\text{dBc}$
	» Harmonic Suppression	» $\leq -70\text{dBc}$
	» Clutter Output	» $\leq -65\text{dBc}$
	» LO Frequency	» 2280 MHz or 2033 MHz
	» RF Output Impedance	» 50 Ω , 'N' Type
	» Output Reflection Loss	» $\geq 19\text{dB}$
	» Video Specification	» Video Input Level
» Video Input Impedance		» 75 Ω
» Video Input Reflection Loss		» $\geq 30\text{dB}$
» Modulation Mode		» Amplitude Modulation, Negative Polarity
» Modulation Degree		» $\leq 87.5\%$
» Video In-band Flatness		» $\leq 2\text{dB}$
» 2 T K Coefficient		» ≤ 2
» Brightness Nonlinear Distortion		» $\leq 12\%$
» DG (Differential Gain)		» $\pm 3\%$
» DP (Differential Phase)		» $\pm 3\%$
» Chromaticity/Brightness Gain Difference		» $\leq 10\%$
» Chromaticity/Brightness Time Delay Difference		» $\pm 35\text{ns}$
» SNR		» $\geq 55\text{dB}$
» Parasitic Carrier Phase Modulation		» $\pm 3^\circ$
» Audio Specification		» Audio Input Level
	» Audio Input Impedance	» 600 Ω (Balance) or $\geq 2\text{K}\Omega$ (Imbalance)
	» Modulation Mode	» FM
	» Pre-emphasis Time Constant	» 50 us
	» Max Frequency Deviation	» $\pm 50\text{KHz}$
	» Audio Harmonics Distortion	» $\leq 1\%$ (30Hz~15KHz) (100% Modulation)
	» Audio Amplitude-Frequency Characteristics	» $\pm 1\text{dB}$ (30Hz~15KHz) (50% Modulation)
	» FM Signal to Clutter Ratio	» $\geq 60\text{dB}$
	» AM Signal to Clutter Ratio	» $\geq 60\text{dB}$
» Environmental Condition	» Operation Temperature	» -10~+45
	» Relative Humidity	» <95% (No condensation when 25)
	» Atmospheric Pressure	» 86~106Kpa
	» Cool System	» Built-in cooling fan for air cooling
	» Power Supply	» Single Phase AC; 220V \pm 15%;50Hz \pm 1Hz
	» Machine Room	» Little dust, No vibration and shock
	» Dimension	» 177(H) \times 482(W) \times 570(D)mm3,