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Outline

HDT8500 is a professional DVB-T/T2/ATSC digital transmitter researched and developed by HONDAO, which gives sustained power output. Its compact structure design has greatly saved space for your room. It is applicable to both SFN and MFN network modes and supports both signal-carrier mode and multi carrier-mode. Signal channel and broadband transmission are supported.

The frequency range of HD8551 is from 470MHz～806MHz. This transmitter has a very high linear and high reliability as it takes high gain and high linear LDMOS tube amplifier module. Furthermore, it supports AGC function to keep sustained power output.

HDT8500 DVB-T/T2/ATSC digital transmitter can be widely used in HD/SD digital TV signal transmitting and broadcasting system.

Key Features

- **Enhanced signal transmission quality**
- **Intelligent and modularized amplifier unit, takes high power gain and high linear LDMOS tube amplifier module design**
- **Low power consumption and super linear design to improve the transmission power, and reduce the nonlinear distortion**
- **Support AGC function with sustained power output to allow the transmitter a good stability and reliability**
- **LED on the front panel support alarm and signal monitor**
- **Stabilized-power supply with wide range of voltage and high efficiency**
- **Multi lightning protection measures, good protection for whole equipment.**
- **24-hour working unmanned, user friendly design**
- **Support fault self-diagnosis**
- **Support MFN and SFN system**
- **Easy to install, elegant appearance。**

Monitoring Objects and Alarm Status

Monitoring Objects	**Alarm Status**
Power Supply	abnormal
Overheating	alert
Amplifier	abnormal
Antenna feed system	abnormal

Technical Specifications

Phase noise

Center frequency deviation (Hz)	Local oscillator (dBc/Hz)
@10	≤ - 70
@100	≤ - 85
@1k	≤ - 95
@10 k	≤ - 100
@100 k	≤ - 111
@1 M	≤ - 125

Electrical Parameters

Item		Technical specs
Basic Parameters	TV Standard	DTMB-T /DVB-T/T2/ATSC/ISDB-T
	Modulating mode	4/16/32/64 QAM
	Frequency stability (3 months)	External Frequency Range: $\leq 10^{-10}$
		Internal Frequency Range: $\leq 10^{-7}$
	Frequency accuracy	MFN: ±100Hz / SFN: ±1Hz
	Local oscillator phase noise	See table above
	In-band stray	≤-60dBc
	In-band ripple （fc±3.591MHz）	±0.5dB
	Out-of-band rejection	≤-65dBc
Input	Frequency range	470MHz～806MHz (any 100MHz bandwidth)
	level	-20±3dBm
	Input reflection loss	≥15dB
	connector	N-K
Output	Output power	10W, 20W, 30W, 50W, 100W Optional
	Frequency range	470MHz～806MHz (any 100MHz bandwidth)
	Output impedance	50Ω
	In-band ripple （fc±3.591MHz）	±0.5dB
	Shoulder level	≥40dB@central frequency FC±4.2MHz (after correction, single channel)
	MER	≥35dB (after correction, single channel)
	output reflection loss	≥26dB
	Output power variation	±0.25dB
	Inner adjacent channel transmission power	Inner adjacent channel transmission power : in-band transmission power≤-60dB， meet that Inner adjacent channel transmission power≤13mW
	External adjacent channel transmission power	External adjacent channel transmission power : in-band transmission power≤-65dB， meet that Inner adjacent channel transmission power≤13mW
Environment condition	Working temperature	-20~+50℃
	Storage temperature	-30~+75℃
	Relatively humidity	＜95%（no condensation at 25℃）
	atm press	86~106kPa
	power supply	AC, 220V±10%/50Hz
	Case size (L/W/H)	482x504x132mm

Optical Signal Parameters

Item	Unit	Technical Specs
Optical wavelength	nm	1100-1600
nominal optical input power	dBm	-1
Input optical power range	dBm	-15~+2
Max input optical power	dBm	+3
Optical interface		FC/APC
optical reflection loss	dB	45