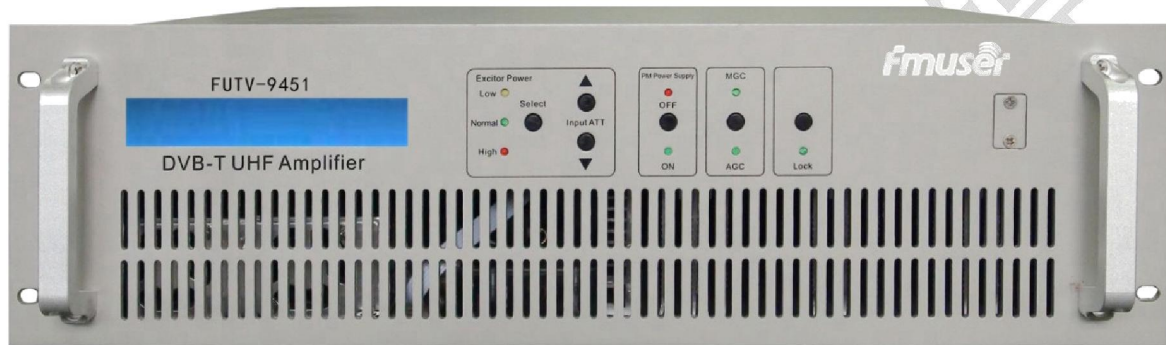


FUTV9451 DVB-T Digital Transmitter (Indoor)



Outline

FUTV9451 is a professional DVB-T digital transmitter researched and developed by FMUSER, 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 FUTV9451 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.

FUTV9451 DVB-T 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)
at10	- 70
at100	- 85
at1k	- 95
at10 k	- 100
at100 k	- 111
at1 M	- 125

Electrical Parameters

	Item	Technical specs
Basic Parameters	TV Standard	DTMB-T /DVB-T/DVB-C
	Modulating mode	4/16/32/64 QAM
	Frequency stability (3 months)	External Frequency Range: 10^{-10} Internal Frequency Range: 10^{-7}
	Frequency accuracy	MFN: $\pm 100\text{Hz}$ / SFN: $\pm 1\text{Hz}$
	Local oscillator phase noise	See table above
	In-band stray	-60dBc
	In-band ripple ($f_c \pm 3.591\text{MHz}$)	$\pm 0.5\text{dB}$
	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	50 Ohm
	In-band ripple (fc±3.591MHz)	±0.5dB
	Shoulder level	40dBatcentral 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 C
	Storage temperature	-30~+75 C
	Relatively humidity	< 95% (no condensation at 25 C)
	atm press	86~106kPa
	power supply	AC , 220V±10%/50Hz
	10W-30W	482mmx395mmx132mm
	50W-100W	482mmx222mmx564mm

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 \geq