



DFT-7313-I FM Audio Broadcast Transmitter



Outline

DFT-7313-I (500 Watt) is Dexin's newest generation of FM audio transmitter with low and medium power.

It adopts advanced third generation of FM modulation technologies: digital signal processing (FPGA) and digital frequency synthesis technology (DAC). DFT-7313-I takes use of the advantage of digital audio processing technology to provide users a CD quality hearing experience with high linear and high gain LDMOS tube amplifier module.

Key Features

- Fully complying with national standard (GB/T4311-2000) and industrial standard (GY/T169-2001)
- Adopt high gain and high linear LDMOS tube amplifier module design



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- **Adopt international advanced digital signal processing technology (FPGA) for audio encoding**
- **Support AGC function with sustained power output ($\pm 0.1\text{dB}$) to ensure the transmitter a good stability and reliability**
- **Adjustable output power as needed (25W~500W)**
- **Low power consumption and super linear design to improve the transmission power, and reduce the nonlinear distortion**
- **LED on the front panel supporting alarm and signal monitor**
- **High-efficiency power supply with wide range of voltage (AC100~264V), suitable for different working condition**
- **Equiped with multiple lightning protection measures**
- **Support fault self-diagnosis and self-protection**
- **Air-cooled system with low consumption and low noise**
- **Multi lightning protection measures, good protection for whole equipment**
- **Full digital front panel control, easy operation**
- **24-hour working unmanned, user friendly design**
- **Two Transmitters can be connected simultaneously by Coaxial switch, and one for back up**

Technical Specifications

S/No.	Item	Unit	Technical Index	Industrial Standard	Remark
1	Output Power	W	500	--	
2	Frequency	MHz	87~108	--	
	RF output impedance	Ω	50		

4	Sparious Radiation		dB	< -60 (<1mW, Power \geq 25W) < -40 (<25 μ W, Power<25W)	-73.8 (0.4mW)	
5	parasitic amplitude modulation noise		dB	\leq -60	\leq -50	
6	Pilot frequency deviation		Hz	\pm 1	\pm 1	
7	Deviation (100% modulation)		kHz	\pm 75	—	
8	pre-emphasis		μ s	50	—	
	Input Impedance		K Ω	10		
9	Distortion (100% modulation)	L	%	<0.1	<0.5	
		R				
10	Frequency response (without emphasis, de-emphasis)	L	dB	\pm 0.1	\pm 0.5	
		R				
		Stereo	dB	\pm 0.1		
11	Frequency response (with emphasis, de-emphasis)	L	dB	\pm 0.1	\pm 1	
		R				
12	SNR (100% modulation)	L	dB	\geq 75	\geq 60	
		R				
13	L/R Separation	L \rightarrow R	dB	>65	>40	
		R \rightarrow L				
14	L/R level diffrence		dB	<0.1	<0.4	

Specifications and Environment Conditions

Item	Item	Technical Requirements	Remark
Output and Input	Input interface	XLR, AES/EBU	
	Output interface	L29-50K	
Environment condition	Working temperature	-20 \sim +50 $^{\circ}$ C	
	Storage temperature	-30 \sim +75 $^{\circ}$ C	
	Relatively humidity	<95% (25 $^{\circ}$ C no condensation)	
	Cooling mode	inside forced air cooling	

	atm press	86~106kPa	
	power supply	AC, 100~264V/50Hz	
	machine room	Less dust, shock-free	
	Demission	454×440×129.5mm (L×W×H)	19 Inches

System Principle

