

## 10KW UHF/VHF All Solid-state TV Transmitter



### Function and Characteristics:

All-solid-state circuit design and combined transmission of video\ audio carrier, convenient to upgrade to digital TV transmitter. With dual professional TV exciter for optional demands and advanced RF non-linearity correction technology are able to guarantee the reliability and stability of TV signal distortion. The hot-plug power units could backup each other, ensure that there is no single fault of transmitter. Super-linearity and broadband of power amplifier modules are modularized designed and adopted high gain LDMOS high-power FET, this device has high redundancy, perfect self-check function and easy to install and maintain. New type output filter ( low-pass or band pass available). With adopted high-power synthesis technology, low insertion loss, high out-of -band suppression. Local or remote control, friendly man-machine interface by microcomputer unit, eight inch color touch display screen, it can display and control the operating mode exciters, power amplifier units and transmitter, with GSM message auto alarm module, and fixed timing starting up and shutdown functions. With self intellectual property rights. Develop exciter, power amplifier, power combiner, monitoring system independently. Wide voltage stability range and high efficiency of power supply. With over-voltage, over-current, over-heat, over-excitation, low-voltage, short-circuit and over-VSWR auto-protective functions. with multiple-measure of thunder-proof, it could run securely. Forced air cooling design with low power consumption and low noise. All technical specifications can meet or exceed the national standards



### Technical Specification:

	» UHF	» VHF
» Rated Output Power	» 10KW	
» RF Specifications		
» Television Standards	» PAL-D (or other standards)	
» Frequency Range	» 470MHz~806MHz(Select one channel)	» VHF 1, 3 (Select one channel)
» Video/Audio Ratio	» 10:1	
» RF Output Impedance	» 50Ω	
» Output Interface	» 3 1/8" Flange	
» Carrier Offset	» ±300Hz/3months	
» Output Power Variation	» ±0.25dB	
» Inside-band Intermodulation	» ≤-52dB	
» Stray Output In Adjacent-channel	» ≤-60dB	
» Stray Output Out Adjacent-channel	» ≤-40dB	
» Video Specifications		
» Input Level	» 1 Vp-p	
» Input Impedance	» 75Ω	
» Input Return Loss	» ≥34dB(0MHz~5.5MHz)	
» Modulation Mode	» AM, negative polarity	
» Percentage of Modulation	» ≤87.5%	
» Field-time Waveform Distortion	» ≤2 %	
» Line-time Waveform Distortion	» ≤2 %	
» 2T Sine-squared Pulse Distortion	» ≤2 %	
» Luminance Non-linearity Distortion	» ≤10%	
» Blacking Level Variation	» ≤±2.5 %	
» Differential Gain	» ±5%	
» Differential Phase	» ±5°	
» C/L Gain Inequality	» ≤10%	
» C/L Delay Inequality	» ±30ns	
» Stochastic Sundry Wave S/N Ratio	» (Root-Mean-Square Value, unweighted): ≥50dB (Root-Mean-Square Value, weighted): ≥58dB	
» Periodic Disturbance S/N Ratio	» (Peak-to-peak value): ≥50dB	
» Audio Specifications		
» Input Level	» 0dBm±6dB	
» Input Impedance	» 600Ω (Bal.) or ≥2KΩ (Unb.)	
» Modulation Mode	» FM	
» Pre-emphasis	» 50μs	
» Frequency Deviation	» ±50KHz	
» Harmonic Distortion	» ≤1% 30Hz~15KHz (100% Modulated)	
» Amplitude-Frequency Characteristic	» ±1dB 30Hz~15KHz, 50us (50% Modulated)	
» FM S/N Ratio	» ≥60dB (1KHz, 100% Modulated)	
» AM Noise	» ≤-50dB (Unmodulated)	
» Inner-carrier Noise	» ≤-45dB (100% Modulated)	
» Sync parasitic Am Modulation S/N	» ≥40dB	
» Video to Audio Intermodulation	» ≤10 %	

	» UHF	» VHF
» Environmental Factors		
» Working Temperature	» -10~+45 C	
» Relative Humidity	» 95% No condensation at 25 C	
» Atmosphere Pressure	» 86~106Kpa	
» Cooling	» Forced air cooling	
» Power Supply	» 3 phase AC 380V $\pm$ 15% 50Hz $\pm$ 10%	
» Machine Room	» Few dust, No oscillation and impact	
» Dimensions	» Power amplifier cabinet 1800(H) $\times$ 1000(W) $\times$ 1000(D)mm <sup>3</sup>	
	» Exciter cabinet 1800(H) $\times$ 600(W) $\times$ 1000(D)mm <sup>3</sup>	