

50W~300W Digital TV Transmitter

Overview

This digital TV transmitter consists of a 50W~300W power amplifier and various standard terrestrial digital TV excitors (national standard DTMB, ISDB-T, DVB-T2, etc.) to form various standard terrestrial digital TV transmitters.

The power amplifier unit adopts the industry's advanced power transistor (AMPLON company's LDMOS transistor) as the power amplifier component, equipped with a hot-plugin structure and a highly reliable power amplifier power supply with redundancy exceeding 100%; And there is a built-in switch for the main and backup actuators, which can achieve automatic or manual switching of the main and backup actuators.

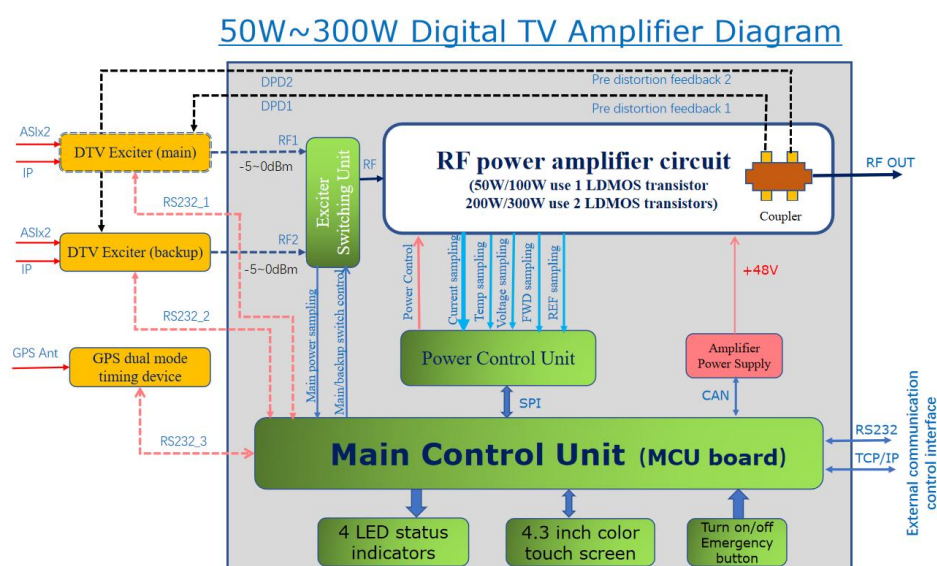
This product adopts a 4-core microprocessor combined control system to ensure excellent performance and stable operation. Adopting a silky graphical interface, allowing users to operate the transmitter like a mobile phone, basically achieving the design concept of operating this product without reading the "User Manual".



Features:

- Built-in exciter automatic switch, can be equipped with dual exciters for automatic switching
- All solid-state digital TV power amplifier using high linearity LDMOS transistor
- Whole machine pre distortion correction, high overall efficiency
- Equipped with a built-in timer for timing on/off, which can achieve automatic timing on/off
- Set the emergency switch button, which can be turned on and off with one click
- Visualized human-machine interface, operating the transmitter like a mobile phone
- The 4.3 inch color touch screen displays the main parameters and operating status of the power amplifier, main and backup exciters, and single frequency network timer (optional), and various parameters can be set through the screen
- Adopting hot-plugin power amplifier for easy maintenance and repair
- Multiple alarm and protection functions (overvoltage, overcurrent, overheating, overpower, high standing wave ratio, etc.)
- Networked telemetry and remote control, monitoring can be achieved through web pages
- High reliability design, capable of working continuously for 24 hours

Diagram:



Technical Specifications:

1. Working channel: VHF or UHF
2. Output power: 50W/100W/200W/300W, four power levels available
3. Channel bandwidth: 8MHz or 6MHz
4. Output impedance: 50 Ω
5. Output interface: L29/L27 (or other user specified interface)
6. Main and backup exciter interface: L16 or SMA
7. Switching mode of main and backup actuators: manual/automatic/remote control
8. Communication interface between main and backup exciters and timer: RS232
9. Output load reflection loss: Normal operation: -32dB
Permissible working: -20dB
10. Power input level: -5dBm~0dBm
11. Out of band useless emission: ≤ 60 dB
12. In band fluctuation: ± 0.5 dB
13. Shoulder: better than 36dB
14. MER: better than 30dB
15. Power supply voltage: AC 220V/50Hz
16. Operating environment temperature: -10 $^{\circ}$ C~45 $^{\circ}$ C
17. Relative humidity: $< 95\%$
18. Altitude: < 5500 m
19. Overall size: 132mm (high) \times 483mm (wide) \times 550mm (deep)
20. Weight: 65KG

All other indicators meet GB/T28435-2012 "Technical Requirements and Measurement Methods for Ground Digital Television Broadcasting Transmitters"