

# 300W Digital TV Transmitter

## Overview

The ZHC518D-300W/UHF band terrestrial digital TV transmitter adopts a digital excitation board with **FPGA+DDS** software defined radio technology, and is equipped with an excitation RF switching board (optional), which can be combined with external backup exciters to achieve emergency automatic switching between the main and backup exciters, improving the reliability of the whole machine operation.

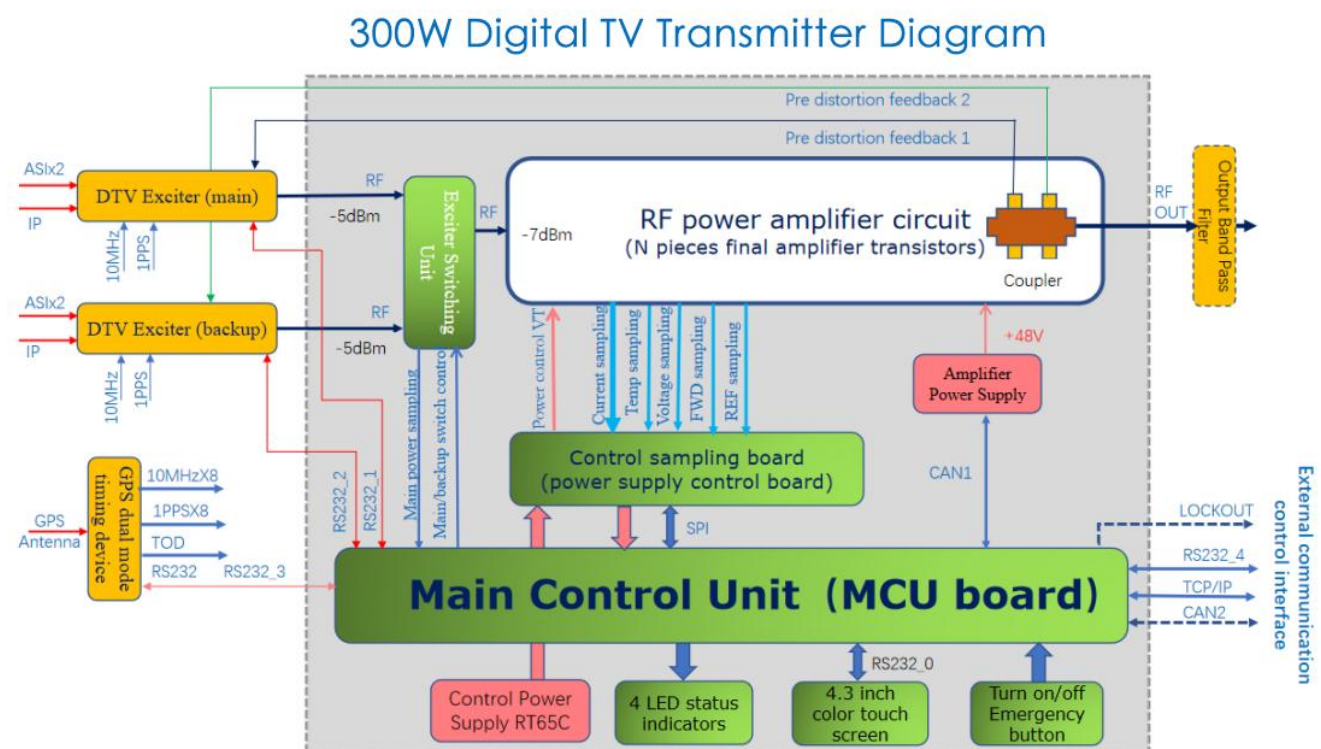
This high-tech product is built with the design concept of "**Advanced technology, excellent parameters, stable and reliable, and easy operation**". It adopts an integrated chassis structure to minimize external connection cables, and adopts a graphical interface design similar to that of a mobile phone, allowing users to operate normally according to screen prompts without a user manual. This product will undoubtedly contribute its efforts to the field of terrestrial digital TV coverage.



## Features

- Adopting the latest LDMOS transistor as the amplification device, it has a large power margin, high reliability, and high efficiency.
- Adopting hot-plugin wide voltage range switching power supply, high reliability and easy maintenance.
- Built in excitation switching board, which can automatically switch between main and backup exciters.
- Centralized display of main and backup exciter technical parameters and important control operations.
- Centralized display of main technical parameters of GPS timing device.
- Adopting a graphical interface design concept similar to that of a mobile phone, this product can be easily operated without an instruction manual.
- Equipped with emergency power on/off buttons, achieving [one click power on] and [one click power off].
- Automatic power control (AGC) ensures zero drift in output power.
- Complete overcurrent, overvoltage, over temperature, over power, and high standing wave ratio alarm and protection functions.
- Equipped with multiple external communication interfaces (TCP/IP, RS232) and web network management function.
- The air inlet is equipped with a dust filter screen, which can effectively prevent dust from entering the machine.
- 19 inch standard chassis, height 3U.

## Diagram



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## Technical Specifications

1. RF frequency range VHF/UHF
2. Output power continuously adjustable from 0~300W
3. Allowable deviation of output power  $< \pm 10\%$
4. Output impedance  $50 \Omega$
5. RF input connector N-50K
6. RF output connector 7/16"DIN female or 7/8"EIA Flange
7. Stream signal input interface:
  - 1) ASI input interface BNC (female)  $50 \Omega$
  - 2) IP input interface RJ-45
8. Excitation RF monitoring interface: BNC (female)  $50 \Omega$
9. Remote monitoring interface: RS232 DB9 (female) or RJ45 Ethernet interface
10. Lightning protection: Built in lightning arrester.
11. Power supply voltage single-phase 220VAC/110VAC (50/60Hz)
12. Heat dissipation method: forced convection
13. Efficiency  $> 20\%$
14. Channel bandwidth: 6/8MHz
15. Input signal level: 0dBm
16. Shoulder:  $\geq 36\text{dB}$  (after pre distortion)
17. MER:  $\geq 32\text{dB}$  (after pre distortion)
18. Chassis standard 19 inches
19. Chassis size 3U width 445mm x height 133mm x depth 572mm  
(excluding handles and interfaces)
20. Total weight 35Kg (including packaging)
21. Operating environment temperature  $-10^\circ\text{C}$  to  $+45^\circ\text{C}$
22. Relative humidity  $< 95\%$
23. Altitude  $< 4500\text{m}$

All other specifications meet the technical requirements and measurement methods for terrestrial digital television broadcast transmitters (GB/T28435-2012)