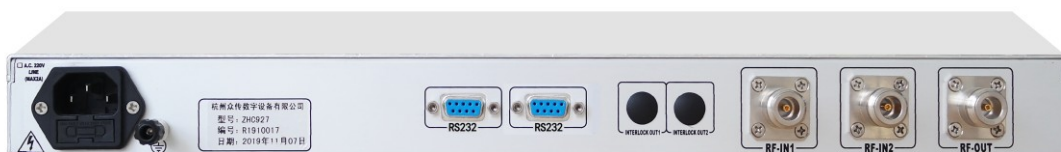


ZHC927/M RF Switcher



1. Overview

The ZHC927/M RF switcher is a special device designed to realize automatic switching of **radio/TV transmitters** equipped with dual modulators (output -30dBm ~ +15dBm). It has **automatic switching mode and manual switching mode**.

In automatic switching mode, the switcher automatically detects and judges the working status of the main modulator (with or without radio frequency). When the main modulator fails and has no radio frequency output, it automatically switches to the standby modulator to work; in manual switching mode, only one key is required Complete the switch between the main and standby modulators. The working status in both automatic and manual modes has a power-off hold function.

Features:

- With automatic and manual switching modes
- With working status LED indication function
- With the main and standby modulator radio frequency switch control function
- With power failure to maintain the RF path and modulator switch status before the power failure
- Using high-speed MCU processor control, stable and reliable performance
- Provide remote control port

2. Technical Details

2.1 Technical Specifications:

Power supply	AC220V/1A/50Hz
RF input and output impedance	50Ω
RF input power	-30dBm~+15dBm
No RF switching time	2 seconds

2.2 Physical Specifications:

RF input and output connector	SMA
Communication interface	RS232
Chassis standard	19 inches
Chassis size	1U (440mm×44mm×300mm)
Operating environment temperature	-5℃~+45℃
Relative humidity	<95%
Altitude	<4500m

3. System Structure

3.1 Structure and composition

As shown in Figure 3-1, the inside of the device consists of a **switcher, RF detection unit, intelligent control unit, and key display unit.**

Switcher: It is composed of relays to realize the radio frequency switching of the main and standby modulators.

RF detection unit: detects the radio frequency input of the main modulator, and sends the detection result to the control unit for processing.

Intelligent control unit: In the automatic mode, it judges the signal sent by the radio frequency detection unit and decides whether it is necessary to control the switch;

In manual mode, operate the switch according to the key command.

Button display unit: Button to select manual/auto working mode, and indicate the working status of the switcher through the indicator light.

3.2 Working principle diagram

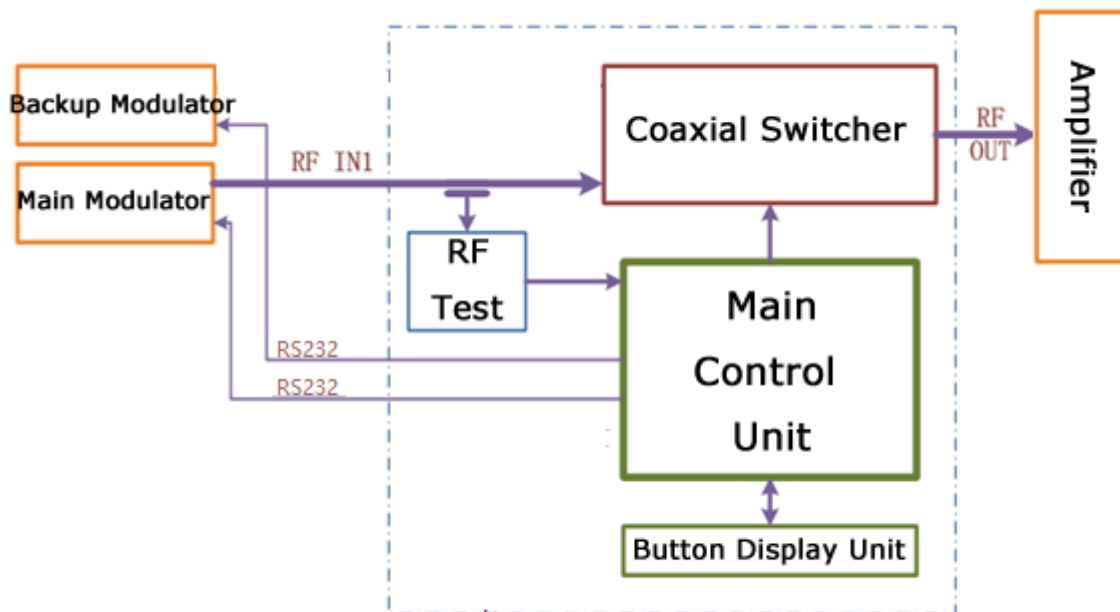


Figure 3-1 ZHC927/M RF Switcher Block Diagram