High Fidelity Wireless Audio Module

Product Specification



SA356-TX

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Note: Revision History

Revision	Date	Comment
V1.0	2021-12	First release
V1.1	2025-2	Information updated
V1.2	2026-3	Update delay time

1. Overview

SA356-TX products are divided into 5w transmitter module, which can be matched with receiver module SA326-RX. This product is an application board with SA316-TX amplified to 5W. It can work after power-on. You can also use PC software to directly set the module's frequency, sound size and other parameters, which greatly simplifies the user's development difficulty. This product is widely used in occasions with relatively high sound quality requirements.

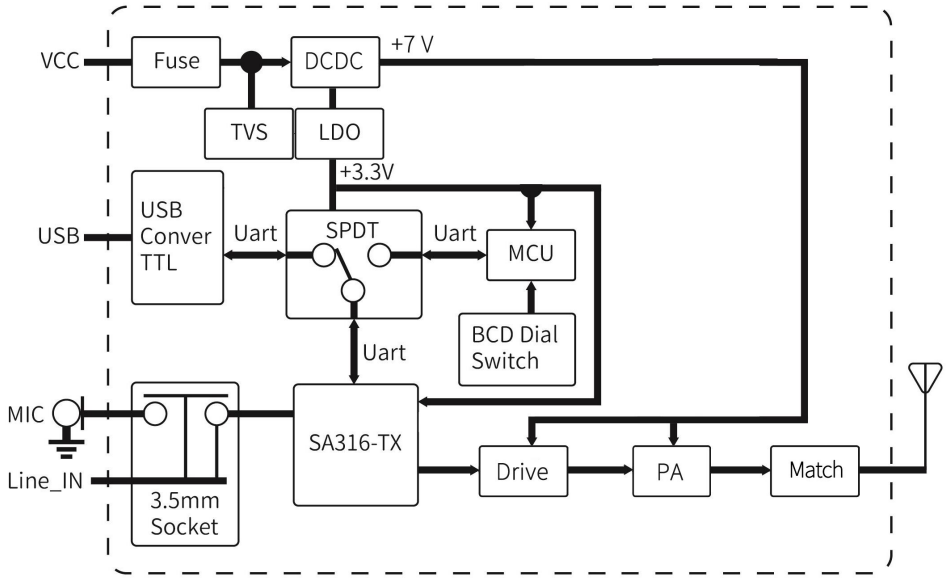
2. Features

- UHF frequency band：500 MHz
- The transmission distance is 3000 meters in the open area
- Audio signal to noise ratio: 96 dB
- Frequency response: 20 Hz-20 KHz
- The delay from microphone input to audio output is 49ms
- Digital modulation method: pi/4 DQPSK
- Occupied bandwidth: <300 KHz
- Transmission rate: 204.8 Ksps
- Sampling rate: 48 KHz

3. Applications

- Wired speakers become wireless speakers
- wireless microphone
- Wireless Headphones
- High-quality wireless audio transmission

4. Internal block diagram

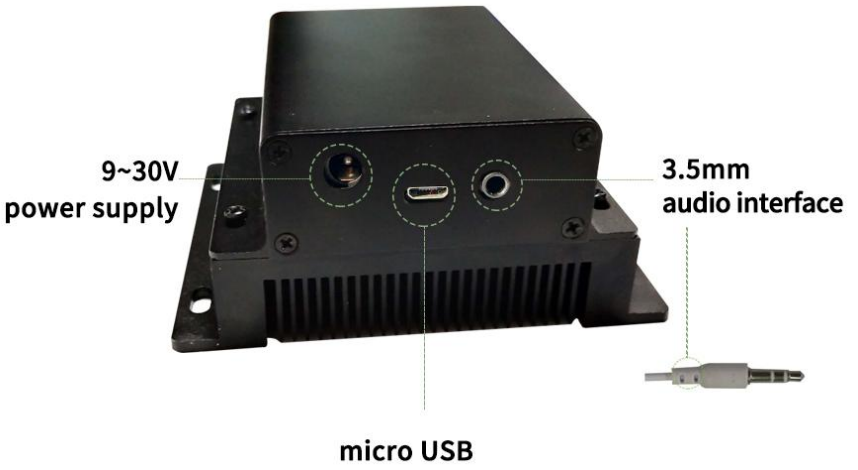


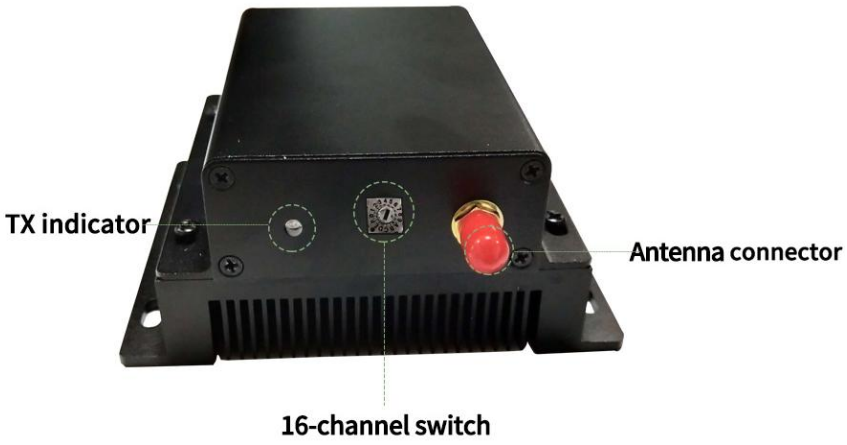
SA356-TX block diagram

5. Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating voltage range		9.0	12	30	V
Range of working temperature		-20	25	60	℃
Operating frequency range		500.02		516.02	MHz
Audio transmission and reception delay			49		ms
Serial port baud rate			9600		bps
Current consumption					
Stand-by current			<100		mA
Emission current			<1.5		A
Transmit parameter					
Transmit power	@VCC=12V	36	37		dBm
Emission bandwidth（BW)			300		KHz
Adjacent channel power ratio（ACPR）	@600KHZ		-60		dBc
Maximum microphone input voltage			0.3	1.5	Vrms
Audio frequency response range		20		20k	Hz

6. Module interface description





7. Mechanical size (unit：mm)

