

# SDIO PRODUCT SPECIFICATION

IEEE 802.11 b/g/n 2.4GHz 1T1R WiFi Module

TL6152PSA2

Single Module

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Revision	Date	Contents of Revision Change	Remark
1.0	2020/11/16	首次发布产品规格书	2020/11/16

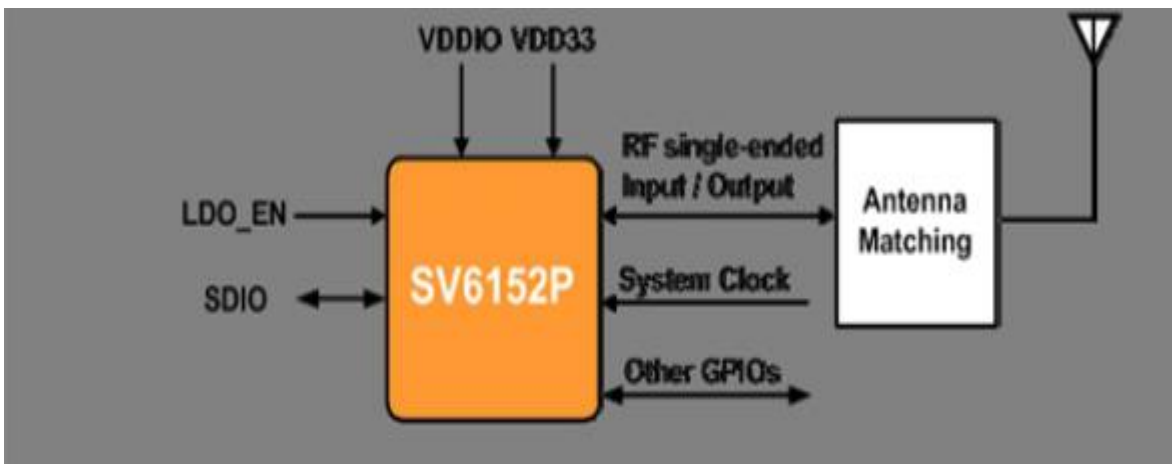
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## 1. Introduction

### 1.1 Overview

The SV6152P WLAN is designed to support IEEE 802.11 b/g/n single stream with the state-of-the-art design techniques and process technology to achieve low power consumption and high throughput performance to address the requirement of mobile and handheld devices. The SV6152P WLAN low power function uses the innovative design techniques and the optimized architecture which best utilizes the advanced process technology to reduce active and idle power, and achieve extreme low power consumption at sleep state to extend the battery life. The SV6152P WLAN A-MPDU Tx function maximizes the throughput performance while achieving the best buffer utilization.



### 1.2 Product Features

- SDIO Interface for WiFi
- IEEE standards support: IEEE 802.11b, IEEE 802.11g, IEEE 802.11n,
- Enterprise level security which can apply WPA/WPA2 certification for WiFi.
- WiFi 1 transmitter and 1 receiver allow data rates supporting up to 150 Mbps downstream and 150 Mbps upstream PHY rates
- Operate at ISM frequency bands (2.4GHz)

## 2. GENERAL SPECIFICATION

### 2.1 WiFi RF Specifications

Parameter	Condition/Notes	Typ	Unit
TX Sensitivity (CCF)	CCF, 11 Mbps	18	dBm
TX Sensitivity (OFDM)	OFDM, 54Mbps	16	dBm
TX Sensitivity (HT20)	HT20, MCS7	15	dBm
TX Sensitivity (HT40)	HT20, MCS7	15	dBm
RX Sensitivity (CCF)	CCF, 11 Mbps	-82	dBm
RX Sensitivity (OFDM)	OFDM, 54Mbps	-71	dBm
RX Sensitivity (HT20)	HT20, MCS7	-67	dBm
RX Sensitivity (HT40)	HT20, MCS7	-64	dBm

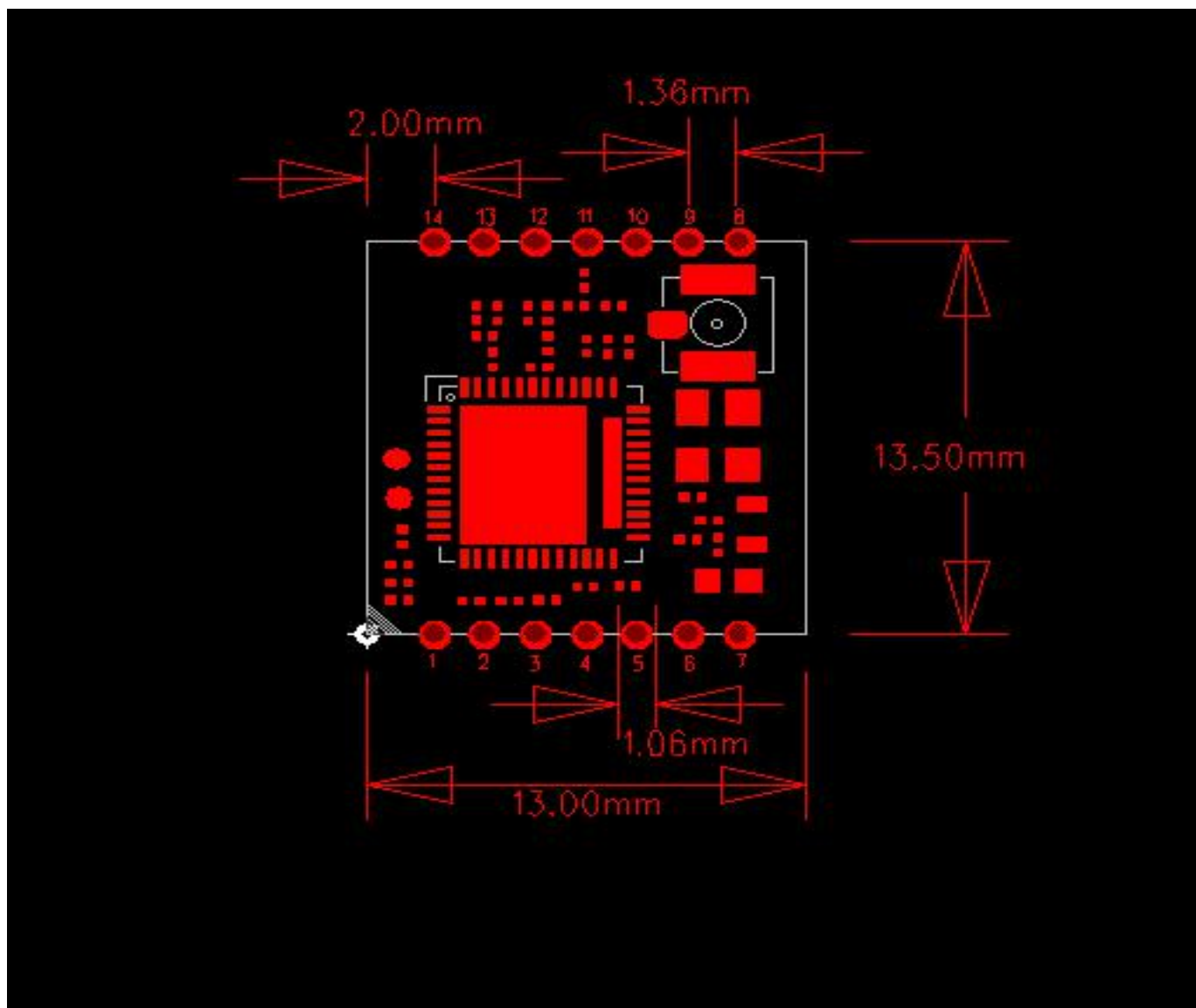
### 2.2 Power Consumption

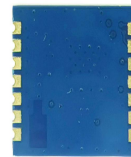
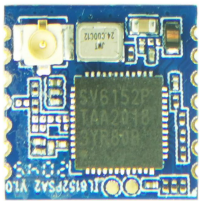
WLAN Operational Modes	Typ	Unit
OFF	5	uA
TX,CCF,1 Mbps	356	mA
TX,OFDM,54Mbps	305	mA
TX,HT20,40Mbps	304	mA
RX,CCF,1 Mbps	127	mA
RX,OFDM,54Mbps	126	mA
RX,HT20,40Mbps	131	mA

### 3. Mechanical Specification

#### 3.1 PCB SIZE

FEATURE	DETAILED DESCRIPTION
LENGTH	13.5MM
WIDTH	13MM
HEIGHT	0.8MM(PCB)





### 3.2 PIN Assignment

Pin #	Name	Description
1	D2	SDIO_DATA2
2	D3	SDIO_DATA3
3	CMD	SDIO_CMD
4	GND	GND
5	CLK	SDIO_CLK
6	D0	SDIO_DATA0
7	D1	SDIO_DATA1
8	VDD33	3.3V
9	LDO-EN	LDO_EN
10	GND	GND
11	ANT	RF OUTPUT
12	GND	GND
13	NC	NC
14	WAKE_BB	WL-HOST WAKE UP

## 4. Environmental Requirements

### 4.1 Operating & storage temperature

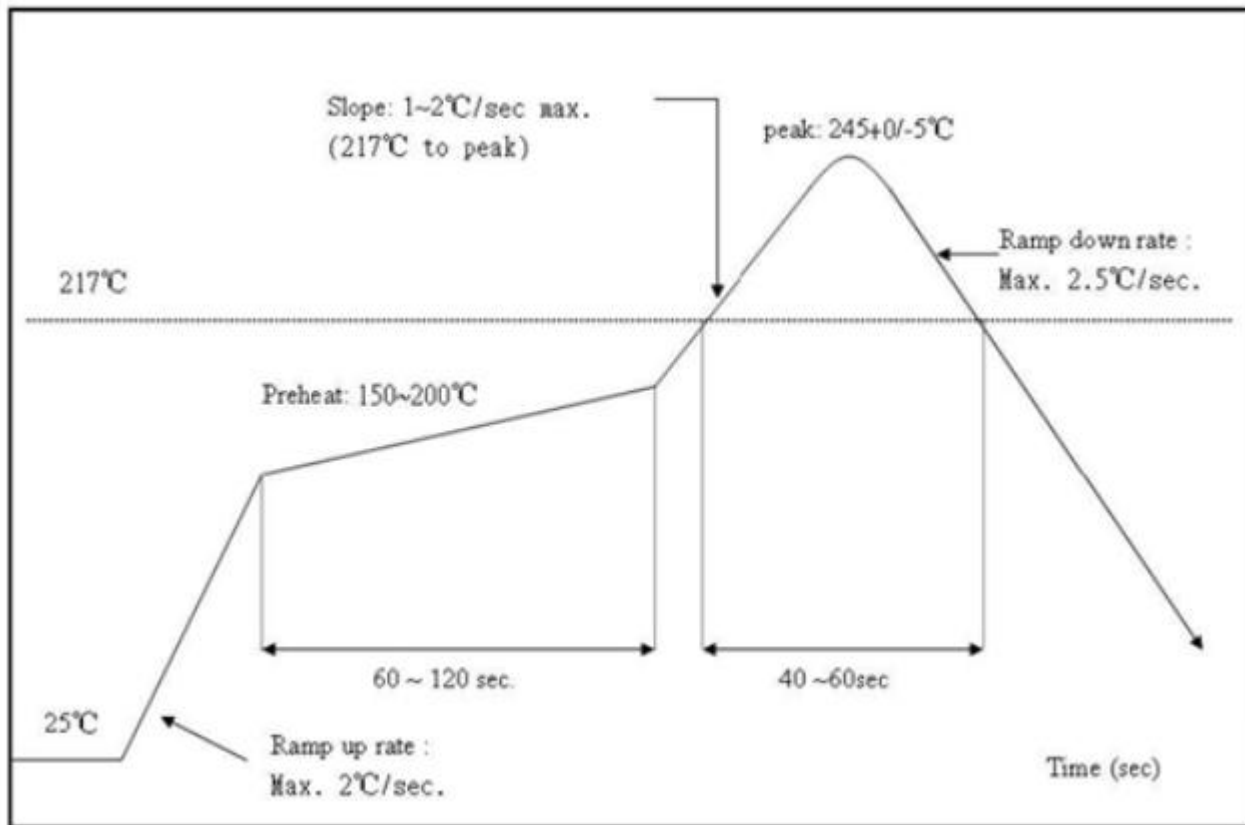
Operating	Temperature: -5°C to +55°C Relative Humidity: 10-90% (non-condensing)
Storage	Temperature: -40°C to +80°C (non-operating) Relative Humidity: 5-90% (non-condensing)
MTBF (Mean Time Between Failures)	Over 150,000hours

### 4.2 Recommended Reflow Profile

Referred to IPC/JEDEC standard.

Peak Temperature : <250 度

Number of Times : ≤2 times





## 5.Package Information



Using self-adhesive tape  
Size of black tape:24mm\*32.6m the cover tape  
Color of plastic disc:blue  
A roll of 2000pcs



NY bag size:460mm\*385mm



size : 350\*350\*35mm