The Circuit Principle Description

• The SS8258_P32F module supports single or dual analog microphone or digital microphone, and stereo audio output with enhanced voice performance for voice search and other such applications. The SS8258_P32F module also includes full range of on-chip peripherals for interfacing with external components such as LEDs, sensor, touch controllers, keyboards and motors. This make it an ideal single-chip solution for IoT and HID application wearable devices, smart lighting, smart home devices, advanced remote controls and wireless toys.

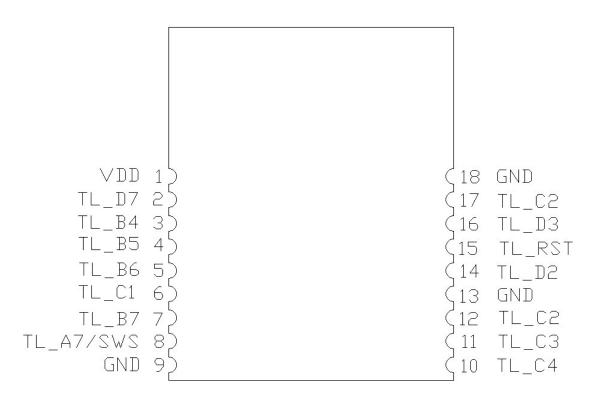
Feature

- 32-bit MCU, 64kB SDRAM, 512kB internal Flash
- 3-wire debug interface
- 8 PWM outputs&GPIOs, 2 ADC inputs&GPIOs and 1 GPIO
- Receiver sensitivity: -96dBm@BLE 1Mbps mode

-101dBm@BLE 125kbps mode

- Transmitter maximum current: 20mA@+10dBm
- Receiver current: 5mA
- Operation voltage: 1.8V ~ 3.6V
- PCB meander antenna
- Dimensions: 22.5mm*18mm*1.0mm
- Operation temperature: 20 $^{\circ}$ C to +85 $^{\circ}$ C
- Lead-free and RoHS compliant

Pin Configurations

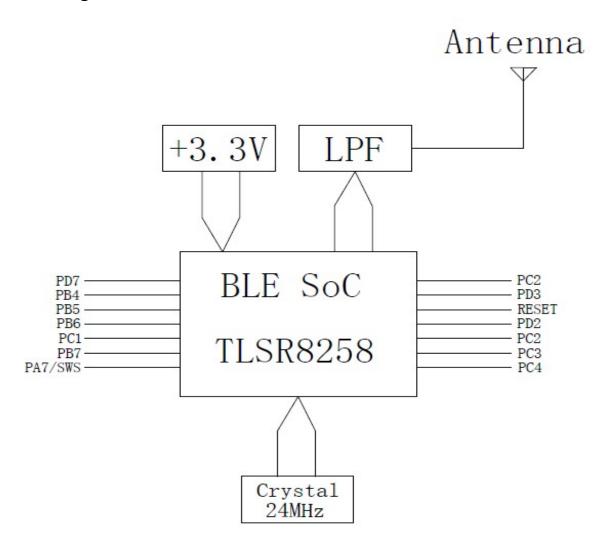


Module Ilustration





Block Diagram



The Module statement

2.1

Operating and using conditions:

-20°C-85°C

2.2

Antenna used

Antenna Type	Max. Antenna Gain
Meander	+2dBi
PCB Antenna	

2.3

Trace antenna designs information:

Trace boundary limit: 0.2mm

Thickness: 35um Length:14mm Width: 0.635mm

Shape: Meander PCB Antenna

Dielectric constant: 4.4 Relative permeability: 1.0 Dielectric loss tangent: 0.02

Impedance: 50 Ohm

2.4

Notice to Host Product Manufacturer:

Any deviation(s) from the defined parameters of the antenna trace, as described by this instruction, host product manufacturer must notify us that you wish to change the antenna trace design. In this case, a Class II permissive change application is required to be filed by us, or you (host manufacturer) can take responsibility through the change in FCC ID and IC ID (new application) procedure followed by a Class II permissive change application.

FCC&IC regulatory compliance statement

§15.19 &RSS-Gen Statement

This device complies with part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

§15.21 Information to user

Warning: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Labelling Instruction for Host Product Integrator

Please notice that if the FCC and IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label should follow "Contains FCC ID: 2A4AE-SS825801". In accordance with FCC KDB guidance 784748 Labeling Guidelines.

 $\ensuremath{\mathnormal{\S}}\xspace\,15.19$ Labelling requirements shall be complied on end user device.

Labelling rules for special device, please refer to $\S 2.925$, $\S 15.19$ (a)(5) and relevant KDB publications. For E-label, please refer to $\S 2.935$.

Installation Notice to Host Product Manufacturer

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

For RF exposure considerations, the module can only be used in a host for the conditions that it was granted for. To be used in any other way them granted, such as with other transmitters simultaneously, requires additional evaluation, testing, or testing and Class 2 permissive change.

Antenna Change Notice to Host manufacturer

If you desire to increase antenna gain and either change antenna type or use same antenna type certified, a Class II permissive change application is required to be

filed by us, or you (host manufacturer) can take responsibility through the change in FCC ID&IC ID (new application) procedure followed by a Class II permissive change application.

FCC other Parts, Part 15B Compliance Requirements for Host product manufacturer

This modular transmitter is only FCC authorized for the specific rule parts listed on our grant, host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

Host manufacturer in any case shall ensure host product which is installed and operating with the module is in compliant with Part 15B requirements. Please note that For a Class B or Class A digital device or peripheral, the instructions furnished the user manual of the end-user product shall include statement set out in $\S15.105$ Information to the user or such similar statement and place it in a prominent location in the text of host product manual. Original texts as following: For Class B

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- —Reorient or relocate the receiving antenna.
- —Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- —Consult the dealer or an experienced radio/TV technician for help.

For Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
