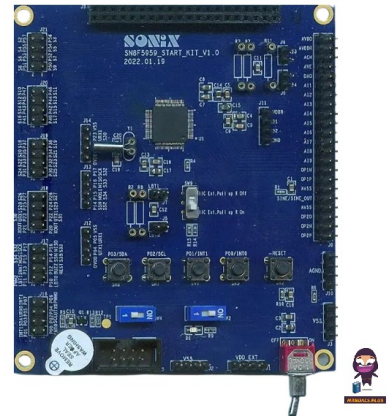


SONiX
SN8F5940
Series
Starter
Kit



SONiX SN8F5940 Series Starter Kit User Manual

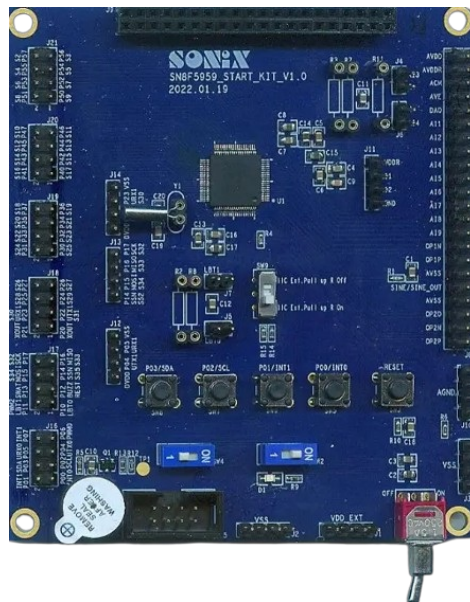
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SONiX SN8F5940 Series Starter Kit



Product Information

The SN8F5949 Starter-Kit is an easy-development platform that includes the SN8F5940 family real chip and I/O connectors for input signals or driving user application devices. It serves as a simple platform for application development when the target board is not available. The Starter Kit can be used as a replacement for the target board because the SN8F5940 family integrates an embedded ICE in-circuit debugger circuitry.

Development Environment

The SN8F5949 debug tool works with Keil C51, which includes an integrated development environment (IDE, Keil Vision), C51/A51 compilers, and BL51 linker. For detailed documentation, refer to the SN8F5000 Debug Tool Manual available for download on the manufacturer's website.

Setup Instructions for Development Environment

1. Confirm that all elements on the circuit board are complete.
2. Choose the power source for the Starter-Kit circuit from 5.0V, 3.3V, or an external power supply via jumper.
3. If using 5.0V or 3.3V power source, connect it to a DC 7.5V power adapter.
4. If selecting the external power source, connect it to the EXT pin.
5. Connect the XIN and XOUT pins with crystal/resonator oscillator components when setting the timer clock to X'tal or T0 Timer setting RTC mode.
6. The Debug port can be connected to the SN-LINK adapter for emulation or code download purposes.
7. The MCU LED will illuminate, and the SN8F5940 family chip will be powered when VDD is switched on.

FAQ

What components are included in the SN8F5940 Starter Kit?

The SN8F5940 Starter-Kit includes various components such as ADC capacitors, regulator capacitors, LBT function connectors, LBT capacitors and resistors, external Vref source connector, external Vref capacitor and resistors, power regulators capacitance, DC 7.5V power adapter connector, external power source connector, ADC function pins, and Debug Port.

Overview of Starter Kit

SN8F5949 Starter-Kit provides easy development platform. It includes an SN8F5940 family real chip and I/O connectors to input signal or drive device of user’s application. It is a simple platform to develop applications as target board not ready. The Starter-Kit can be replaced by target board because the SN8F5940 family integrates embedded ICE in-circuit debugger circuitry.

Development Environment

SN8F5949 debug tool cooperates with Keil C51 which includes integrated development environment (IDE, Keil µVision), C51/A51 compliers and BL51 linker. See detailed documentation of SN8F5000 Debug Tool Manual (download on www.sonix.com.tw).

Development Environment

These configurations must be setup completely before starting Starter-Kit developing.

- 1. Confirm to the circuit board whether the elements are complete.
- 2. The power source of the Starter-Kit circuit is chosen from 5.0V, 3.3V or external power via jumper.
- 3. The power source comes from 5.0V or 3.3V which must be connected to DC 7.5V power adapter.
- 4. If the power source is chosen from external power, then the external power source connects to EXT pin.
- 5. The “XIN” pin and the “XOUT” pin need to connect crystal/resonator oscillator components when timer clock is setting X’tal or T0 Timer setting RTC mode.
- 6. The Debug port can connect SN-LINK adapter for emulation or download code.
- 7. The MCU LED will light up and the SN8F5940 family chip will be connected to power when power (VDD) is switched on.

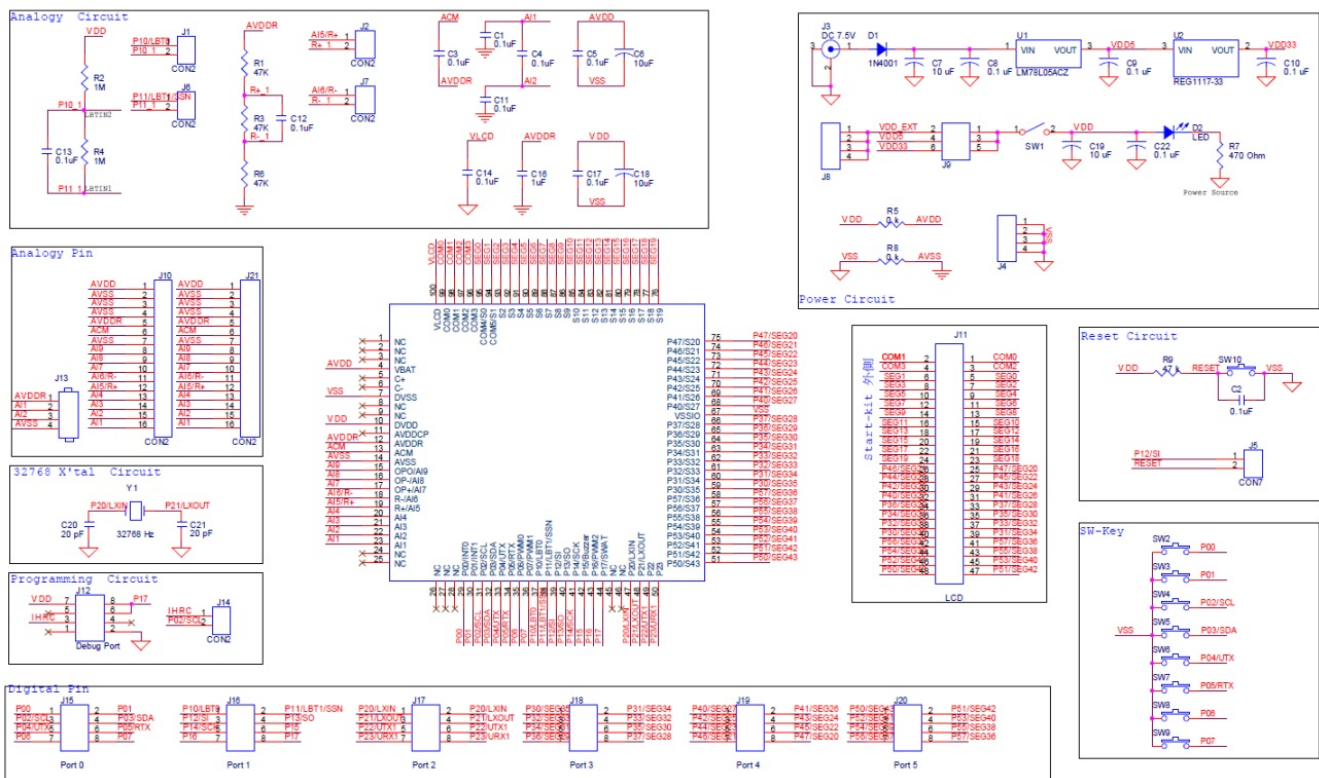
Revision History

Revision	Date	Description
1.0	Oct 2024	First issue.

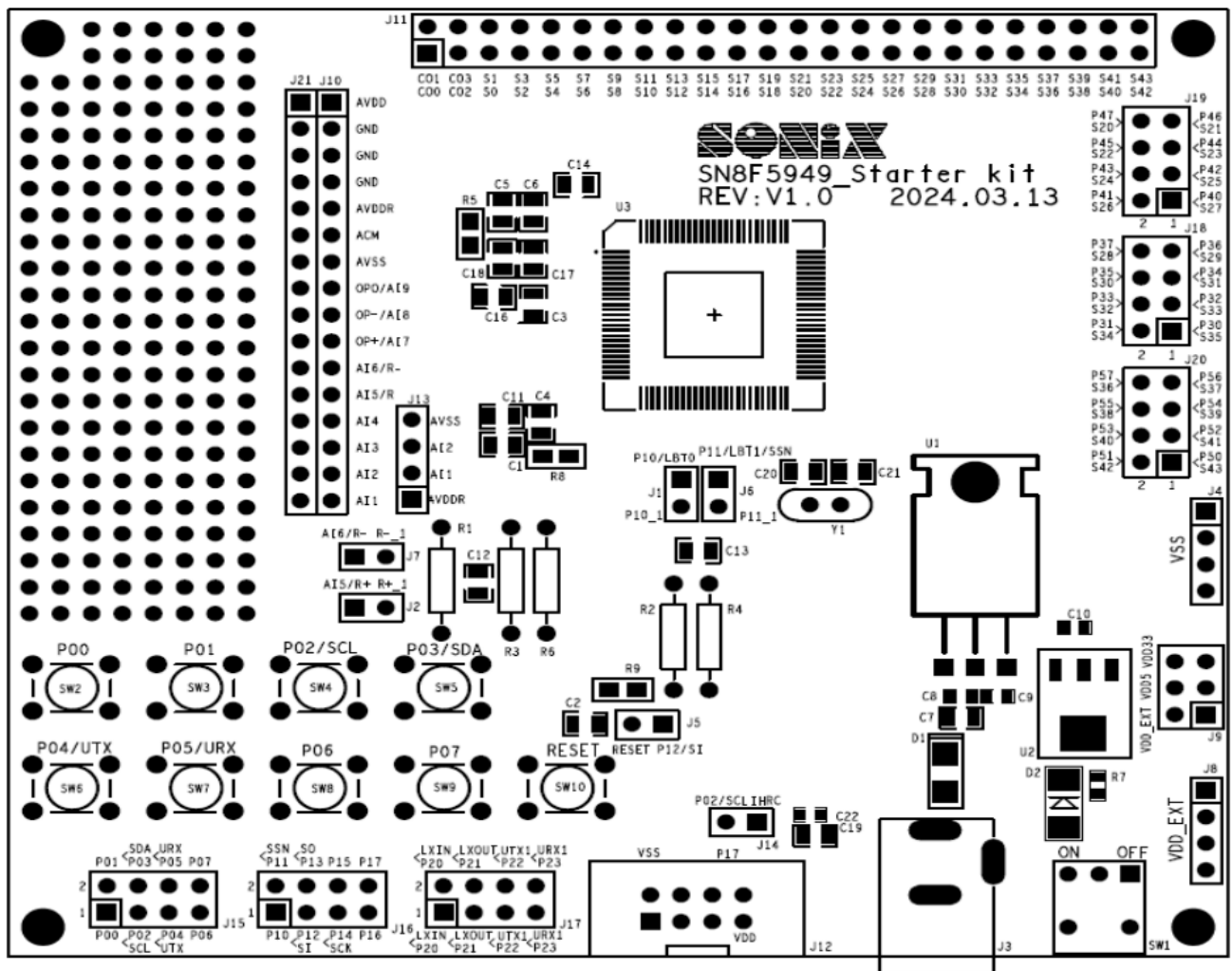
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SN8F5949 Starter-Kit

Schematic



Floor Plan of PCB layout



Component Description

Number/ Description


- C1,C4,C11 ADC capacitors.
- C3 ,C16
 - Capacitors of regulator. J1,J6 LBT function connector.
- R2,R4,C13
 - LBT capacitor and resisters. J2,J7 External Vref source connector.
- R1,R3,R6,C12
 - External Vref capacitor and resisters. C5,C6 AVDD power regulators capacitance.
- C17,C18
 - DVDD power regulators capacitance. J3 DC 7.5V power adapter.
- C7,C8,C9,C10
 - DC 7.5V power source regulators capacitance. J8/J4 External power source.
- C19,C22
 - External power source regulators capacitance. J10,J13 ADC function pin.
- J12
 - Debug Port. J14 IHRC calibration pin (refer to chapter 28.3 of datasheet).
- J9
 - VDD power source is 5.0V, 3.3V or external power. D2,R7 MCU LED and resister.
- J15-J20
 - I/O connector. SW2-SW9 I/O button.
- J11
 - LCD SEG/COM. R5,R8 0 ohm resisters.
- SW1
 - Target power (VDD) switch. Y1,C20,C21 External crystal/resonator oscillator components.

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- All Products: fae@sonix.com.tw

Documents / Resources

	<p>SONiX SN8F5940 Series Starter Kit [pdf] User Manual SN8F5940 Series Starter Kit, SN8F5940 Series, Starter Kit</p>
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References

- [S :: Sonix Technology Co., Ltd.](#)
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