

FCC ID:2AU4Z-SGD1

SGD1

HIGH FIDELITY FULLY- BALANCED DAC

User Manual V1.0

Jan. 2020

01 OVERVIEW

Welcome to SGD1, a high-performance digital-to-analogue converter developed and manufactured by SONCOZ technology in Shenzhen, PRC. Please take a few moments to familiarize yourself with its operation.

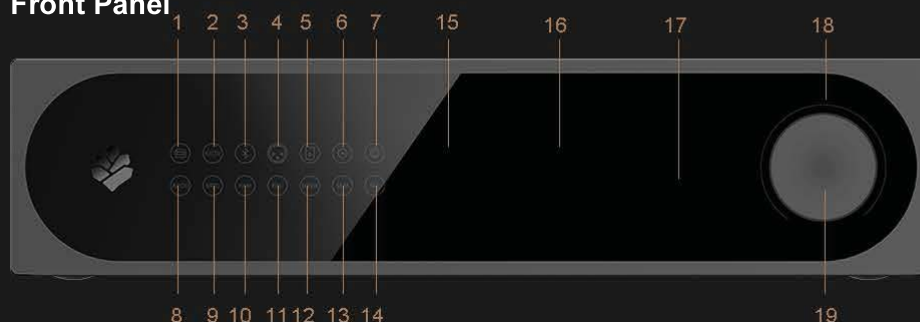


Rear Panel



- 1 XLR analogue output(Left and Right): 4.0Vrms @0dBFS
- 2 RCA analogue output(Left and Right): 2.0Vrms @0dBFS
- 3 AES input: 24-bit/192kHz
- 4 Coaxial output: 24-bit/192kHz
- 5 USB-C input: 32-bit/768kHz PCM/up to DSD512(Native)
- 6 USB-B input: 32-bit/768kHz PCM/up to DSD512(Native)
 - ◆ When both USB-C and USB-B are plugged in, USB-B is default
 - ◆ User can switch between USB-B and USB-C freely with the knob or the remote control
- 7 Toslink input: 24-bit/192kHz
- 8 Coaxial input: 24-bit/192kHz
- 9 Voltage selector switch: Please check the correct voltage before using SGD1 and the wrong voltage will damage SGD1
 - ◆ 110V for AC 100~120V @50/60Hz ◆ 220V for AC 220~240V @50/60Hz
- 10 AC power input connector: Please use our customized three-phase power cable to get the best playback quality
- 11 Fuse: Include backup fuse
- 12 Power switch: Please check the local voltage level again

Front Panel



- 1 USB-B input indicator
- 2 USB-C input indicator
- 3 Bluetooth (aptX HD 5.0) input indicator
- 4 AES input indicator
- 5 Toslink input indicator
- 6 Coaxial input indicator
- 7 Coaxial output indicator
 - ◆ Coaxial output always be enabled
 - ◆ All 6 kinds of digital inputs can be converted into coaxial output
- 8 Apodizing fast roll-off filter (APOD) mode indicator(Default)
- 9 Brick wall filter (BRIC) mode indicator
- 10 Minimum phase fast roll-off filter (FAM) mode indicator
- 11 Linear phase fast roll-off filter (FAL) mode indicator
- 12 Hybrid fast roll-off filter (HYER) mode indicator
- 13 Minimum phase slow roll-off filter (SLM) mode indicator
- 14 Linear phase slow roll-off filter (SLL) mode indicator
- 15 WiFi/Bluetooth antenna for system OTA
 - ◆ Configure the network for SGD1 ◆ Software upgrade over the air
 - ◆ Control SGD1 by APP
- 16 IR receiving window for IR remote control
- 17 Bluetooth (aptX HD 5.0) special antenna for HD music
- 18 LED lamp band for volume indicator
- 19 Multi-function knob button integrates all the functions and operations of SGD1
 - ◆ Volume up and down control ◆ Mute analogue output XLR/RCA
 - ◆ Digital inputs switching ◆ Filter modes switching ◆ OTA mode setting

02 OPERATIONS AND SETTINGS

SGD1 has one multi-function knob button on the front of the unit which integrates all the functions and operations of SGD1.

1 Volume up and down control (the default volume is -64dB)

- ◆ The volume can be up and down when the knob is turned right or left
- ◆ The LED lamp band will indicate the volume value



2 Mute analogue output XLR/RCA

- ◆ Press the knob once and SGD1 will be in silent mode
- ◆ Mute mode only works for analogue output (XLR/RCA)

3 Digital inputs switching

- ◆ Press the knob once and turn the knob that will switch between the 6 kinds of input channels
- ◆ From left to right: USB-B/USB-C/Bluetooth/AES/Toslink/Coaxial
- ◆ The volume value of each input channel can be adjusted separately, and it will be protected even if the power goes off in memory

4 Filter modes switching

- ◆ Long press the knob and turn the knob that will switch between the 7 kinds of filter modes
- ◆ From left to right: APOD/BRIC/FAM/FAL/HYER/SLM/SLL
- ◆ The filter mode of each input channel can be adjusted separately, and it will be protected even if the power goes off in memory

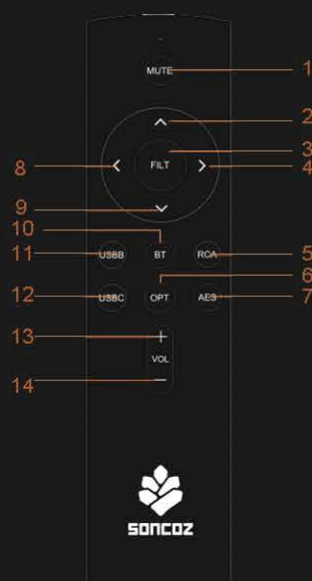


5 OTA mode setting and reset

- ◆ Double press the knob three times and SGD1 will go into configuration network mode, at the same time all the LED indicators will turn on
- ◆ Use the Esptouch APP(Can download from Apple store or Google play or www.soncoz.com) to configure SGD1 with 2.4G WiFi network
- ◆ Every time after power off and restart, SGD1 will be networked to check whether there is any firmware to upgrade on the server
- ◆ If there is a new firmware to upgrade, SGD1 will complete the upgrade and restart
- ◆ If there is no updated firmware, SGD1 will turn off the 2.4G WiFi network in about 1 minute
- ◆ Press the knob about 6 seconds will reset the system

03 REMOTE CONTROL

- 1 Mute the SGD1
- 2/9 Switch the filter mode
- 3/4/8 Null
- 5 Coaxial input
- 6 Toslink input
- 7 AES input
- 10 Bluetooth input
- 11 USB-B input
- 12 USB-C input
- 13 Volume up
- 14 Volume down



04 SPECIFICATIONS

- 1 Dimensions: 250mm(W) x 225mm(D) x 55mm(H)
- 2 Weight: 3Kg
- 3 Power input: AC110V/AC220V
 - ◆ Warning: Please check and select your local voltage level
- 4 Power consumption: <9W
- 5 Signal input: USB-B/USB-C/Bluetooth/Toslink/Coaxial/AES
- 6 Digital output: Coaxial
- 7 Line out: XLR/RCA
- 8 RCA: Coaxial input
- 9 Frequency response: ◆ 20Hz~20KHz(±0.15dB) XLR ◆ 20Hz~20KHz(±0.15dB) RCA

- 10 Dynamic range: ◆ >126dB A-Weighted XLR ◆ >124dB A-Weighted RCA
- 11 SNR: ◆ >126dB A-Weighted XLR ◆ >124dB A-Weighted RCA
- 12 Output voltage: ◆ 4.0Vrms XLR ◆ 2.0Vrms RCA
- 13 THD+N: ◆ <0.000096% @1kHz XLR ◆ <0.000100% @1kHz RCA
- 14 Crosstalk: ◆ >143dB XLR ◆ >140dB RCA
- 15 Output impedance: ◆ 200Ω XLR ◆ 100Ω RCA
- 16 Noise floor modulation: ◆ 1.3 μVrms

05 TYPICAL APPLICATIONS

1 DAC application



2 Digital interface application



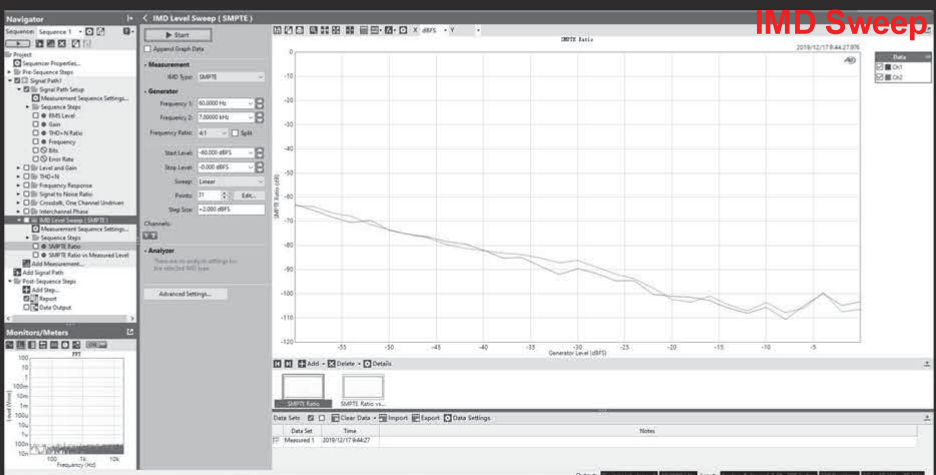
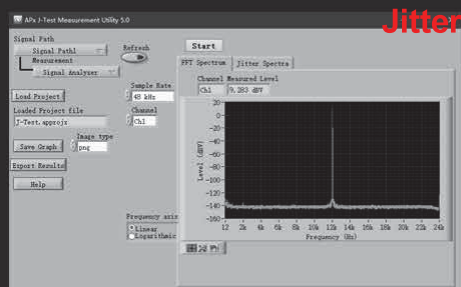
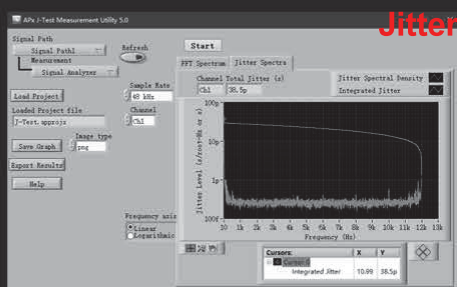
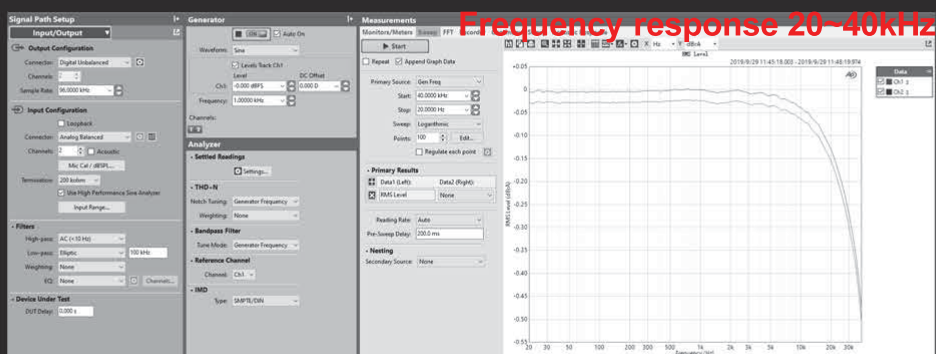
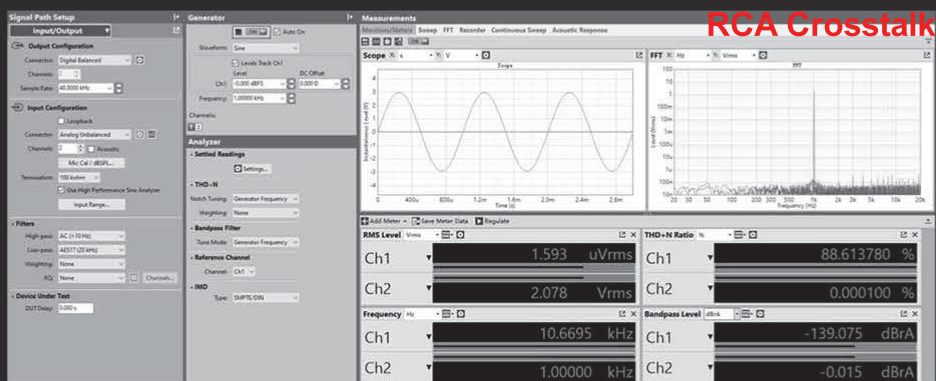
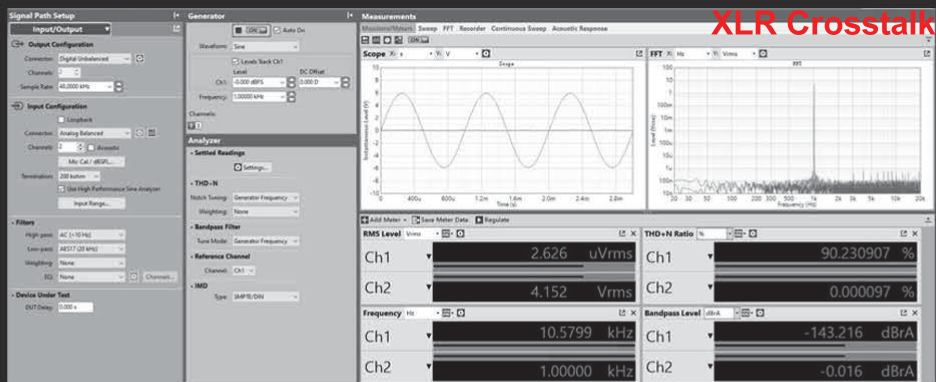
06 CONTENTS LIST

- 1 SGD1 X 1 2 USB-B Cable X 1 3 AC Cable X 1 4 Remote X 1
- 5 User's Manual (electronic ver) X 1

Note: You can download drivers and user's manual on <http://www.soncoz.com>

TEST RESULTS





FCC statements:

The device has been evaluated to meet general RF exposure requirement,
The device can be used in portable exposure condition without restriction.

This device complies with part 15 of the FCC rules. 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.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications or changes to this equipment. Such modifications or changes could void the user's authority to operate the equipment.

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.



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