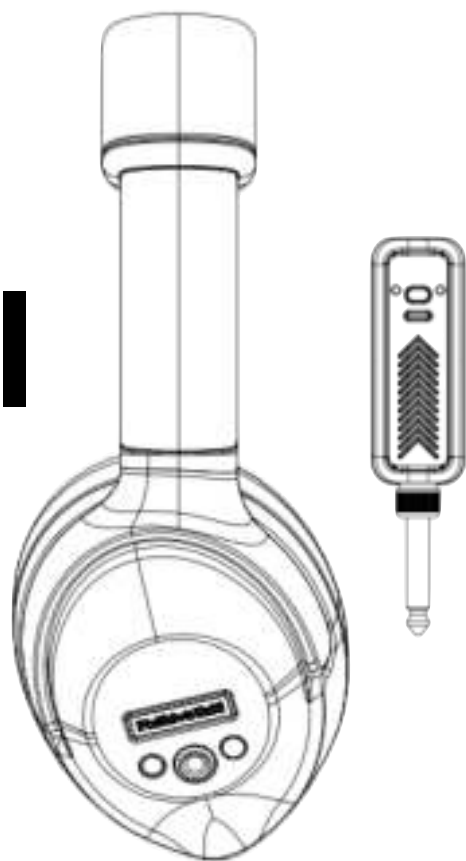


# Spark NEO User Manual



# Product Specification

## AUDIO SPECIFICATIONS

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### FREQUENCY RANGE

20 - 20000 Hz

### STEREO/MONO

Stereo

### MAXIMUM SOUND PRESSURE LEVEL

100dB SPL (@ 1KHz)

### Drivers

ABF (Advanced Bio Fiber) Diaphragm

Driver Size: 40mm

### TOTAL IMPEDANCE

32 ohms

### A2DP (bluetooth audio)

Codec: SBC

Sample Rate: 44.1k / 48k

Bit Depth: 24bit

## BATTERY

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### CHARGING TIME

Headphone 3.5 hours @ 2A/5V USB-C Charger

Wireless Transmitter 2 hours @ 2A/5V USB-C Charger

### PLAY TIME

Bluetooth audio up to 8 Hours playtime

Guitar & Bluetooth audio up to 6 hours playtime

## INCLUDED IN THE BOX

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### BOX CONTENTS

Spark NEO Headphone

Wireless Transmitter

USB-C Cable

Quick Start Guide

## SOFTWARE

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### MOBILE APPS

Spark App for iOS and Android

## CONTROLS AND CONNECTIVITY

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### TOP PANEL CONTROLS

Preset Selector

Guitar Volume

### ONBOARD EFFECTS

33 Amp Models

43 Effects

(Noise Gate, Compressor/Wah, Distortion, Modulation/EQ, Delay, Reverb)

### WIRED CONNECTIVITY

1/4" Guitar Input

### WIRELESS CONNECTIVITY

Build-in Spark guitar Wireless system

Bluetooth Audio

## PHYSICAL UNIT

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### WEIGHT

Headphone weight 370g

Transmitter weight 38.6g

### Dimension

Headphone 203.5 x 166 x 79.7mm

Transmitter 107.3\*25.4\*27.25mm

## Product Material

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### Head band

70° Silica gel

### cover

70° Silica gel

### Bridge

Plastic

### Bridge Cap

Plastic

### Hinge

Plastic

### Hinge Cap

Plastic

### Head Band Sponge

Black

### Ear Sponge

Exterior: Black / Interior: Red

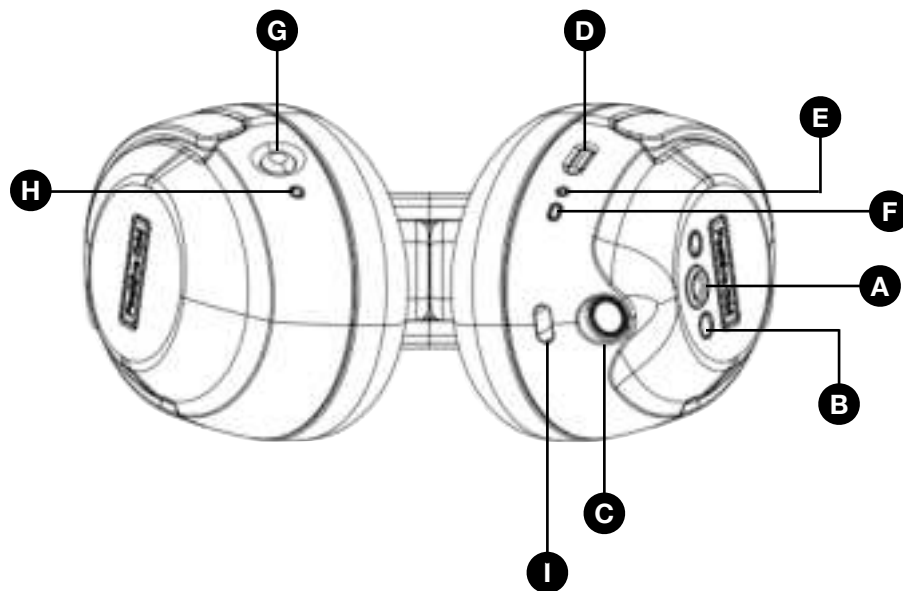
### Logo Badge

Aluminum

6.3mm Jack: Metal

Indicator: Plastic

## Spark NEO Control Panel



**(A) Preset Selector**

Press the preset button to select one of four presets on Spark NEO. These presets can also be customized in the Spark app.

**(B) Guitar Volume Control (- / +)**

Adjust the guitar volume. \*only controls guitar volume

**(C) Guitar Input**

Plug in your guitar with a standard 1/4" (6.3mm) guitar cable

**(D) Power / Bluetooth pairing button**

Power on Spark NEO

Tap button to start bluetooth pairing

**(E) Bluetooth LED Indicator**

Indicates pairing status

**(F) Power LED Indicator**

Indicates power on/off status

**(G) Wireless Receiver power button**

power on/off wireless receiver

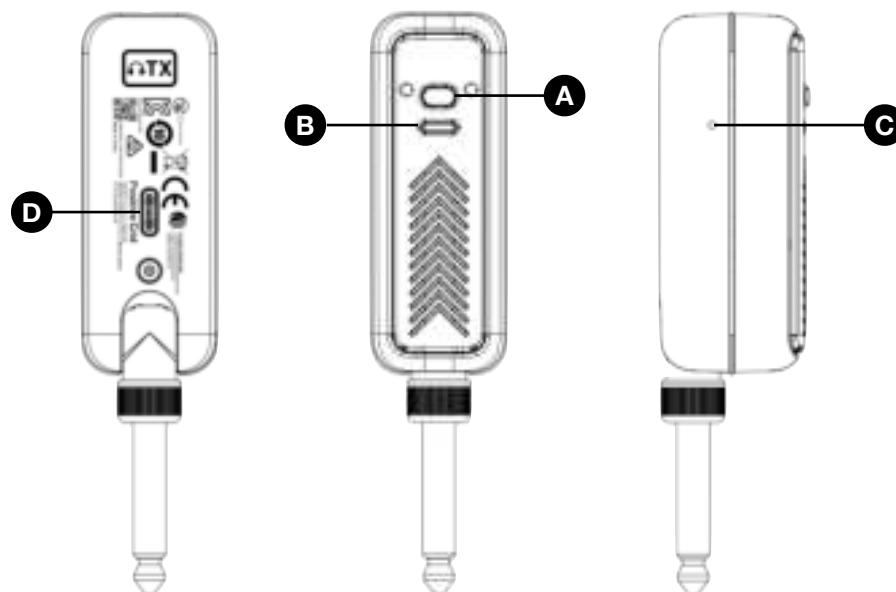
**(H) Wireless Receiver LED Indicator**

Indicates connection status

**(I) USB Type-C charging port**

Plug in to charge your Spark NEO

# Spark NEO Transmitter



## System Overview

- (A) Unlatched Button
- (B) PWM RGB Led
- (C) Pin-Hole reset button
- (D) USB-C

## Wireless Transmitter Technical Specifications

**Frequency Range:** 2.4GHz

**Sample Rate:** 24-bit, 48kHz

**Frequency Response:** 20Hz - 20kHz

**Distortion (THD+N):**

- Less than 1% at 0.57Vrms input (1KHz)
- Output power: 19.2mW, less than 1% distortion (1KHz)

**Dynamic Range:** 115dB

**Latency:** Less than 3.8ms

**Line of Sight Range:** 3-5 meters

**Battery Life:** 13 hours

**Charging Time:** Approximately 2 hours

## Important Notes

### Not Compatible with Spark LINK:

- Please note that Spark NEO is not compatible with Spark LINK, which is why the transmitter has a different color.

## Button Behaviour

Function on TX	Action
On	<ul style="list-style-type: none"> <li>Press and hold to turn it on</li> </ul>
Off	<ul style="list-style-type: none"> <li>Press and hold to turn it off</li> </ul>
Mute	<ul style="list-style-type: none"> <li>Short click to activate silent mode.</li> <li>Repeat to deactivate the silent mode</li> </ul>
Re-pairing	<ul style="list-style-type: none"> <li>Double-click TX to start re-pairing</li> </ul>
Manual Shutdown	<ul style="list-style-type: none"> <li>Use a Pin to push the Pin-hole on the side to engage Manual shutdown.</li> </ul>

## Connection LED Status

Function on TX & RX	Action / LED Status
Transmitter Start-up	<ul style="list-style-type: none"> <li>TX pre-connection LED flashes blue three times, then shows a steady battery level when connected</li> </ul>
Receiver Start-up	<ul style="list-style-type: none"> <li>RX pre-connection LED continuously flashes blue, then shows a steady battery level when connected.</li> </ul>
Re-Pairing	<ul style="list-style-type: none"> <li>LED flashes blue until connected, then shows a steady battery level when connected</li> </ul>
Mute	<ul style="list-style-type: none"> <li>LED shows yellow and Green pulse when muted</li> </ul>
Critical error	<ul style="list-style-type: none"> <li>In the event of a system malfunction, the LED indicator will show a steady red light.</li> </ul>

## Music Input (Bluetooth Audio)

- Spark NEO accepts Bluetooth Audio to stream the music.
- Bluetooth Audio In will be prior to all the inputs.

## LED Indicator Status

Status	Power Indicator	Bluetooth Indicator
Battery charging	Blinking Red/Green	
Powered on or fully charged	Solid Green	
Low battery	Solid Red	
Empty battery	Red blinking 3 times	
Bluetooth Pairing Mode		Blinking Blue
Bluetooth device connected		Solid Blue
Factory reset mode	Blinking White	
Temperature warning	Fast blinking Red	Fast blinking Red

## Factory Reset

Follow the steps below to perform a factory reset. This process will reset all the four presets stored on the Spark NEO as well as its Bluetooth pairing information, Power Saving Setting.

1. Turn off your Spark NEO.
2. Hold the Power/Pair and Preset buttons, then release the buttons when the Power Indicator turns into white color.
3. Hold the Power/Pair or Preset button, until all four preset LEDs buttons blink once, then release the button.
4. Spark GO will be turned off automatically when the factory reset is completed, turn it back on to start playing.

\*After the step 2, if you're not ready to perform factory reset, or tends to do it later, you can cancel the process by tapping the Power/Pair or Preset button.

## Force Shutdown & Restart

If Spark NEO runs into an issue where the knobs/buttons doesn't respond anymore or freezes, or emits a high pitched or unusual noise, follow the steps below to force shutdown and restart Spark NEO.

1. Remove the USB cable on Spark NEO.
2. Hold the Power/Pair button over 10 seconds.
3. Release the Power/Pair button, and hold it again to turn Spark NEO on.

● **FCC**

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

- 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.

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.

**For Spark NEO TX1**

The FCC SAR limit is 1.6 W/kg, with a maximum SAR value of 0.157 W/kg when testing the device for use on the body. The device was tested at 0 mm and meets RF exposure requirements.

The IC SAR limit is 1.6 W/kg, with a maximum SAR value of 0.181 W/kg when testing the device for use on the body. The device was tested at 0 mm and meets RF exposure requirements.

La limite du dos de l'ic est de 1.6 W/kg, avec une valeur maximale du dos de 0.181 W/kg lorsque l'appareil est testé pour une utilisation sur le corps. L'appareil a été testé à 0 mm et répond aux exigences d'exposition aux RF.

**Caution!**

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

● **IC**

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes :

- 1.L'appareil ne doit pas produire de brouillage;
- 2.L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This class [B] digital apparatus complies with Canadian ICES-003.

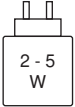
CAN ICES-003 (B) / NMB-003 (B)

Ce produit de classe [B] est conforme aux spécifications de la réglementation ICES-003 du Canada. CAN ICES-003 (B) / NMB-003 (B)

● **NCC**

**警語：**

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。



The power delivered by the charger must be min 2 Watts required by the radio equipment, and max 5 Watts in order to achieve the maximum charging speed. The USB charging cord supplied is only for charging the unit. It cannot be used for data communication or charging other devices.

● **TRIMAN**



● **WEEE**

**Only for European Union and countries with recycling systems**



These symbols indicate separate collection of waste electrical and electronic equipment or waste batteries.

● **BQB**

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● **IMDA**

Complies with  
IMDA Standards  
DB106232

135 mm

178 mm

Declarations of Conformity

RoHS

設備名稱：無線耳機 & 無線發射器， 型號 (型號)：Spark NEO & Spark NEO TX Equipment name: Wireless Headphone & Wireless System Type designation (Type): Spark NEO & Spark NEO TX						
單元Unit	限制物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻Hexavalent chromium (Cr <sup>VI</sup> )	多溴聯苯 Polychlorinated biphenyls (PCBs)	多溴二苯醚 Polychlorinated diphenyl ethers (PBDEs)
揚聲器	○	○	○	○	○	○
電路板	-	○	○	○	○	○
結構件	○	○	○	○	○	○
附件	○	○	○	○	○	○
備考1: "超出0.1 wt %" 及 "超出0.01 wt %" 係指限制物質之百分比含量超出百分比含量基準值。 備考2: "○" 係指該項限制物質之百分比含量未超出百分比含量基準值。 備考3: "-" 係指該項限制物質為排除項目。 Note 1: "Exceeding 0.1 wt %" and "exceeding 0.01 wt %" indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition. Note 2: "○" indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence. Note 3: The "-" indicates that the restricted substance corresponds to the exemption.						

有害物質或元素的說明 Indication of Toxic and Hazardous Substances/Elements						
部件名稱 Part name	產品中有毒物質或元素的名称及含量 Toxic and Hazardous Substances/Elements					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr(VI))	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
揚聲器 (Speaker)	○	○	○	○	○	○
電路板 (PCBA)	X	○	○	○	○	○
結構件 (Structural parts)	○	○	○	○	○	○
附件 (accessory)	○	○	○	○	○	○
本表格依照 SJ/T 11364 的規定編制 ○: 表示該有害物質在該部件所有均質材料中的含量均在 GB/T 26572 規定的限量要求以下 X: 表示該有害物質至少在該部件的某一均質材料中的含量超出 GB/T 26572 規定的限量要求 <div><div>10</div><div>在中華人民共和國境內銷售的電子電氣產品上將印有“環保使用期”(EUP)符號，圖圈中的數字代表產品的正常環保使用年數。</div></div>						

BATTERIES

A warning that batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the light.

1) Replacement of a battery with an incorrect type that can defeat a safeguard;

2) Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery that can result in an explosion;

3) Leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas;

4) A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

CCC

- 注意事項：
1. 勿在本機頂部或電源線上放置重物。
  2. 仔細閱讀操作說明書免誤操作。
  3. 設備不應遭受水漬或水浸，設備上不应放置诸如花瓶一类的装满液体的物品，否则水等液体的不小心洒泼可能会损坏机器。
  4. 电池（电池包或组合电池）不得暴露于诸如日照、火烤或类似热环境中。
  5. 设备应当连接到带保护接地连接的电源电源输出插座上。

NBTC

"เครื่องใช้ในบ้านและอุปกรณ์ที่มีความปลอดภัยตามมาตรฐานหรือข้อกำหนดของกสทช."

CB

Max Operating temperature: 45°C

MOC



135 mm

178 mm