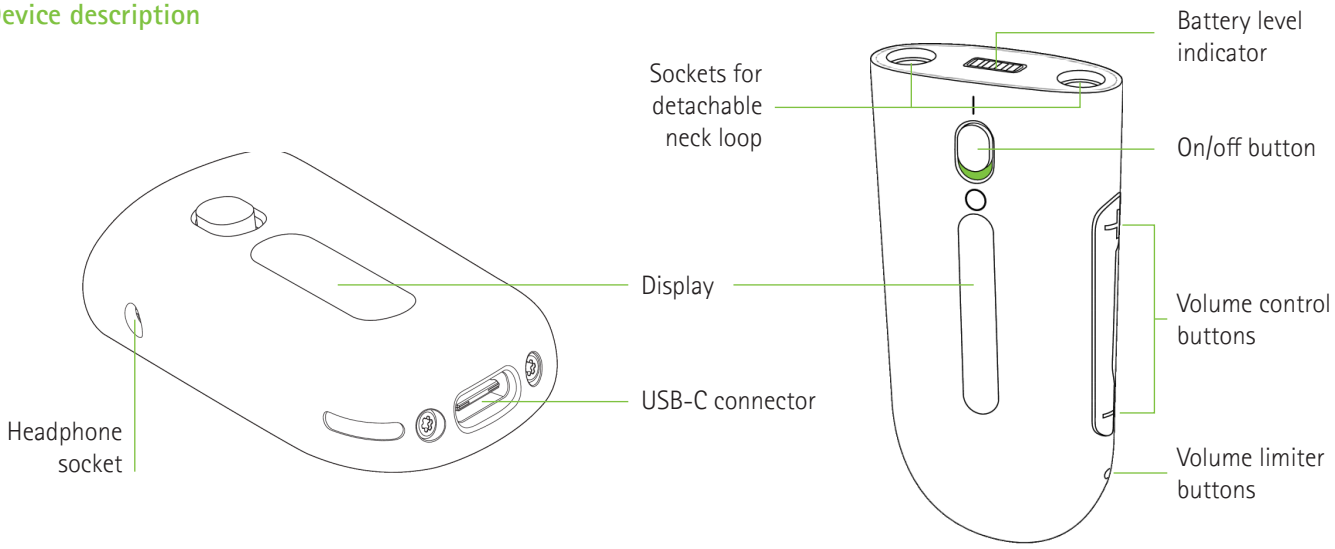
Roger NeckLoop Technical data.

The Roger Neckloop serves as a compact and versatile gateway, seamlessly connecting to the Roger On C via the proprietary Roger protocol. This device enables secure audio recording through an external recording device or facilitates real-time monitoring of conversations using headsets.

Device description



Features

- 3.5mm jack analog audio output
- USB-C digital audio output
- Effective stand-by mode
- Detachable neck loop
- Rechargeable built-in battery
- Over 10 hours operating time
- Adaptive gain on 3.5mm jack audio output and inductive link

General information

Dimensions (L x W x H) without neck loop	70 x 39 x 18 mm (2.76 x 1.53 x 0.71")
Length of standard loop	750 mm (30")
Length of short loop	550 mm (22")
Weight	34 g (1.2 oz)
Weight, including standard loop	52 g (1.8 oz)
Operating conditions	0° to +40° Celsius (+32° to +104° Fahrenheit) Humidity <80% (non-condensing) Atmospheric pressure: 700 hPa to 1060 hPa
Transport and storage conditions	-20° to +45° Celsius (-4° to +113° Fahrenheit) Humidity <85% (non-condensing) Atmospheric pressure: 700 hPa to 1060 hPa

Radio informations

Roger™ is a patended technology developed by Phonak, which features adaptive, wireless transmission and runs on the 2.4 GHz band. Roger™ audio signals are digitized and packaged into very short digital bursts of codes packets and broadcast several times, each time using different channels between 2.4000 and 2.4835 GHz. Frequency-hopping between channels, in combination with these repeated broadcasts, avoids interference issues and ensures successful transmission. Phonak has developed the proprietary Roger™ microchip for dedicated use with miniaturized ear-level receivers.

Transmission technology	2.4 GHz including adaptive automatic frequency hopping
Transmission delay	<20 ms
Antenna	Built-in antenna
RF Output Power	2 mW

Encryption

Roger™ encryption	The audio transmission is secured with an AES (Advanced Encryption Standard) encryption where the code is exchanged at the time of on demand synchronization
Key size	128-bits

Audio characteristics

Audio bandwidth	100Hz – 7200Hz
Audio output	Digital via USB-C Analog via 3.5mm jack
Level of 3.5mm jack output	78 dB SPL with surrounding noise level <58 dB SPL
Magnetic filed strength	1.25 A/m 150 mm above the center loop (transmitter in compression, fmod = 1 kHz, surrounding noise level <58 dB SPL)
Additional adaptative audio gain	Up to 20 dB

Power management

Battery type	Lithium Polymer 3.7 VDC Embedded, not removable Capacity: 250 mAh (typ.) Charging time: <3 hours (typ.)
Operating time	>10 hours
Charging	5 VDC / 1A
Plug	USB-C

Standards

Radiocom	EN 301 489-1
EMC	IEC/EN 60601-1-2 FCC part 15b
Safety	IEC 60601-1

Compatibility

Transmitter	Roger On C™
Receiver	Any inductive baseband receiver

Sonova AG • Laubisrütistrasse 28
CH-8712 Stäfa • Switzerland
www.phonak.com