

# **NR1 External Product Report**

V2.0

**NURVV**

Rev.	Date	Changes
0.1	01.11.2019	Initial creation
1.0	04.11.2019	First version for external release
2.0	27.12.2019	Created separate document after removing radio/EMC testing section

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## 1. Introduction

This document provides a brief overview of the Nurvv Run product and the different components that it consists of. This document is intended for external regulatory and qualification organisations.

## 2. Compliance

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.

Changes or modifications to this equipment not expressly approved by Nurvv Limited may void the user's authority to operate this equipment. See 47 CFR Sec. 15.21 for more information.

## 3. Product Overview

The system consists of the following components:-

- Right and left trackers
- Right and left Insoles
- Charger
- Charging cable (micro-usb)

The different components can be seen in the figure below:-



Figure 1: Product Overview

### 3.1 Trackers

The trackers would typically be attached to the right and left clips and then mounted on the side of the user's trainers. The right tracker is designated as the master and the left tracker is designated as the slave. The master connects to the slave and also to a phone for configuration and data offload.

The ON/OFF button is located on the rear side of the trackers. To switch on the units, push and hold the switch for 3 seconds before release. A blue light will show momentarily followed by a series of 5 green flashes indicating that the unit is now powered on. To switch off the units, push and hold the same button for 3 seconds. Upon release check a red light is seen which then extinguishes.



Figure 2: power button

Both trackers operate in the ISM band (~ 2.4GHz – 2.5 GHz). The right tracker supports Bluetooth Low Energy (BLE) and ANT, whereas the left tracker only supports BLE. Additionally, the left tracker has a GPS receiver which receives signals in the 1.575GHz range and has an Rx sensitivity of -165dBm.

During a run, the left and right tracker continuously exchange data over BLE in order to determine the user's running metrics (e.g. speed, distance, cadence, etc). If an accompanying phone is used during a run, the relevant data is sent over BLE to the phone so that the user is notified of his/her running metrics. When ANT functionality is enabled, the right tracker uses the ANT+ SDM profile to broadcast the data to ANT+ displays.

## 4. Charging

If the trackers need charging, they can be plugged into the supplied charger which is powered from a standard USB port or USB charger. During charging, a pulsating red light will be seen. Once charged, the red light turns green.

## 5. Further Information

For further information, please contact Nigel Waites at [Nigel@Nurvv.com](mailto:Nigel@Nurvv.com).