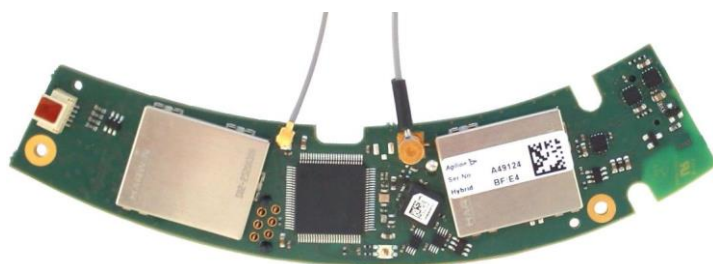


# Guardhat Position Board GHP2470



**User Guide**

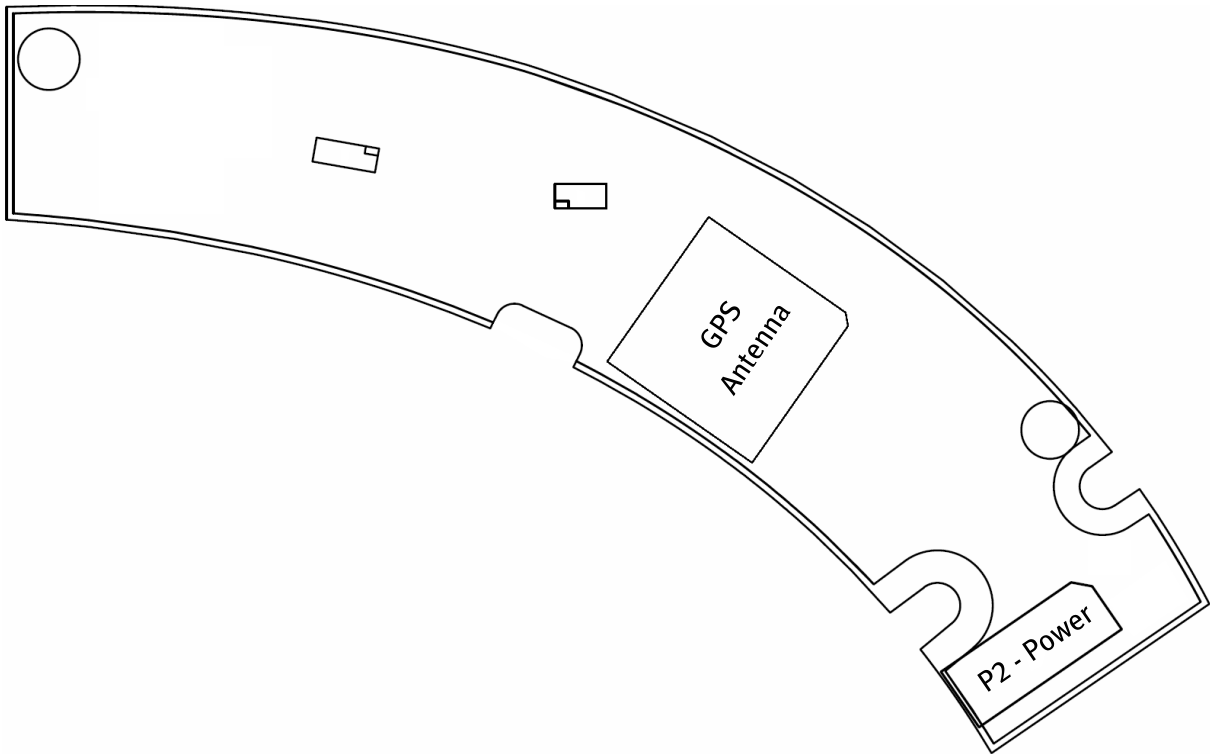


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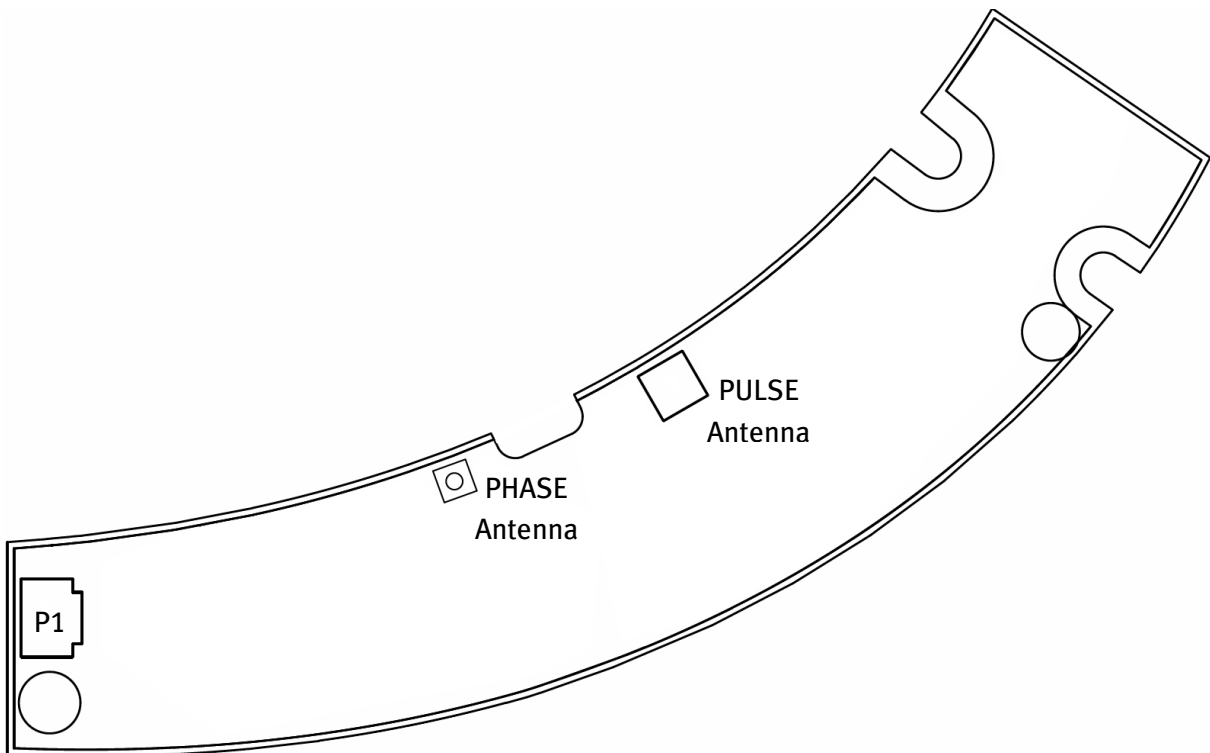
## Table of contents

<b>1</b>	<b>Mechanics, technical data.....</b>	<b>3</b>
1.1	Socket P1.....	4
1.2	Socket P2.....	4
1.3	Socket PULSE Antenna.....	4
1.4	Socket PHASE Antenna .....	4
<b>2</b>	<b>Technical data.....</b>	<b>5</b>
2.1	Radio.....	5
2.2	Power supply .....	5
2.3	Environment and dimensions.....	5

# 1 Mechanics, technical data



Position Board Top View



Position Board Bottom View

## 1.1 Socket P1

Typ: T1M-05-F-SH-L-K

Pin	Description / Function
1	Serial Rx
2	Serial Tx
3	Power Control
4	3.3V Out
5	Ground

## 1.2 Socket P2

Typ: ASP-205221-1

Pin	Description / Function
1 to 6	Power Supply – Akku in – 3.2 V to max. 5 V
15 to 20	Ground

## 1.3 Socket PULSE Antenna

SMP (male)

## 1.4 Socket PHASE Antenna

UFL (male)

### Used Antennas:

Taoglas FXP70.07.0053A ,  
Taoglas FXUWB20.07.0100C

## 2 Technical data

### 2.1 Radio

Radio PULSE (Location)	
Wireless technology	IEEE 802.15.4-2011 UWB
Frequency range	3100 MHz – 4800 MHz
Output power	0.037 mW (-41.3 dBm/MHz)
Antenna	SMP male
Radio PHASE (Communication and optional location)	
Wireless technology	IEEE 802.15.4
Frequency range	2.40 to 2.48 GHz ISM-Band
Output power	Max. 4 dBm (adjustable)
Band width	2 MHz; Data transmission via 802.15.4 channels (adjustable)
Antenna	UFL male

### 2.2 Power supply

Power supply	
Energy supply	3.2 V to max. 5 V from external Lilon-Akku
Power Consumption	max. 2.5 W

### 2.3 Environment and dimensions

Environment and dimensions	
Case	None
IP-Protection	None
Weight	approx. 85 g
Temperature range	-15 °C to +50 °C

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Disclaimers:

FCC

“Changes or modifications not expressly approved by the manufacturer could void the user’s authority to operate the equipment”. “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.”

FCC Interference Statement (Part 15.105 (b))

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 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.

In order to comply with FCC RF Exposure requirements, the antenna used for this transmitter must be installed to provide at least 2 cm separation from the human body at all times.

IC

“This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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

“Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.”

For the USA:

“Contains Transmitter Module FCC ID: 2AR6OGHP2470” or “Contains FCC ID: 2AR6OGHP2470”. Any similar wording that expresses the same meaning may be used.

For Canada:

“Contains Transmitter Module IC: 24751-GHP2470” or “Contains IC: 24751-GHP2470”. Any similar wording that expresses the same meaning may be used.”

