UG-T320

ARTEMIS Anchor

Quick Reference Guide

1st Ed – 11 April 2025

Part No. E2017T320A0R

Declaration of Conformity

This device complies with part 15 FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "a" digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CE statement

The product(s) described in this manual complies with all application European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

Notice

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

Copyright Notice

Acknowledgements

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All other product names or trademarks are properties of their respective owners.

Disclaimer

This manual is intended to be used as a practical and informative guide only and is subject

to change without notice. It does not represent a commitment on the part of Avalue. This product might include unintentional technical or typographical errors. Changes are periodically made to the information herein to correct such errors, and these changes are incorporated into new editions of the publication.

A Message to the Customer

Avalue Customer Services

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support and Assistance

1. Visit the Avalue website at https://www.avalue.com/ where you can find the latest information about the product.
2. Contact your distributor or our technical support team or sales representative for technical support if you need additional assistance. Please have following information ready before you call:

- Product name and serial number
- Description of your peripheral attachments
- Description of your software (operating system, version, application software, etc.)
- A complete description of the problem
- The exact wording of any error messages

To receive the latest version of the user's manual; please visit our Web site at:
www.avalue.com

Content

1. Getting Started

1.1 Safety Precautions

Warning!

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

1.2 Packing List

- 1 x UG-T320
- 1 x Magnetic charging sit

If any of the above items is damaged or missing, contact your retailer.

1.3 System Specifications

General	
Standard	IEEE802.15.4a BLE 5.3
External I/O	Button x 2 (Home/Service Call)
Dimension (mm)	ø45 x 14.5 (wrist band excluded)
Weight (g)	45
Power Requirement	+5V DC-in with magnetic charging sit
Battery Life	1-2 days, at 1Hz, ToF mode with smart rest 2-5 days, at 1Hz, TDoA mode with smart rest
Power Dissipation	< 1W (Instant)
Display	1.32-inch TFT screen with a resolution of 360x360
Temperature	Operating: 0°C~45°C Storage: 0°C~70°C
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
UWB	
Chip	DECAWAVE DW1000
Working Frequency	Channel 2:3.75~4.25(GHz) Channel 3:4.25~4.75(GHz)
Physical Rate	110 Kbps / 850 Kbps / 6.8 Mbps (Adjustable)
Channel Frequency Width	500 MHz
Working Mode	ToF / TDoA
Antenna Specification	Chip antenna, peak gain -6.43dbi (average)
BLE	
Protocols	Bluetooth v5.3
Radio	2.4 GHz Nordic's proprietary 1 Mbps
Antenna Specification	Chip antenna, peak gain 3.77dbi (typical)
Output power (25ºC)	+2 dbm
Receiving sensitivity	-98 dBm at 1 Mbps -95 dBm at 2 Mbps
Reliability	
Vibration Test	Random Vibration Operation 1 Test PSD : 0.00454G²/Hz , 1.5 Grms 2 System condition : operation mode 3 Test frequency : 5~500 Hz 4 Test axis : X,Y and Z axis

	5 Test time : 30 minutes per each axis 6 IEC60068-2-64 Test Fh <u>Sine Vibration test (Non-operation)</u> 1 Test Acceleration : 2G 2 Test frequency : 5~500 Hz 3 Sweep：1 Oct/ per one minute. (logarithmic) 4 Test Axis : X,Y and Z axis 5 Test time :30 min. each axis 6 System condition : Non-Operating mode 7. Reference IEC 60068-2-6 Testing procedures <u>Package Vibration Test</u> 1 Test PSD : 0.026G²/Hz , 2.16 Grms 2 Test frequency : 5~500 Hz 3 Test axis : X,Y and Z axis 4 Test time : 30 minutes per each axis 5 IEC 60068-2-64 Test Fh
Mechanical Shock Test	1. Wave form：Half Sine wave 2. Acceleration Rate：10g for operation mode 3. Duration Time：11ms 4. No. of Shock：Z axis 300 times 5. Test Axis: Z axis 6. Operation mode 7 Reference IEC 60068-2-27 testing procedures Test Eb : Shock Test
Drop Test	<u>Packing Drop</u> Reference ISTA 2A, Method : IEC-60068-2-32 Test:Ed Test Ea : Drop Test 1 One corner, three edges, six faces 2 ISTA 2A, IEC-60068-2-32 Test:Ed
Operating Temperature	0°C~45°C
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Storage Temperature	0°C~70°C

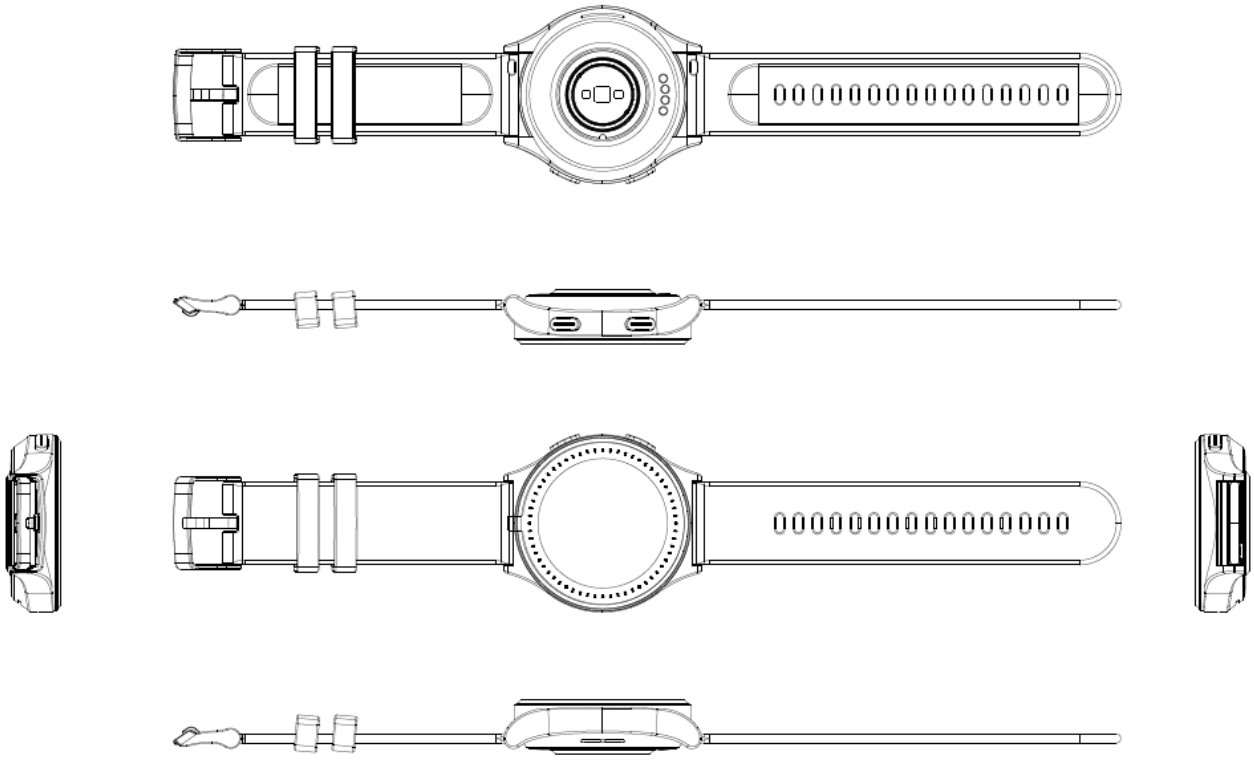
Note: Specifications are subject to change without notice.

1.4 System Overview

1.4.1 Rear View

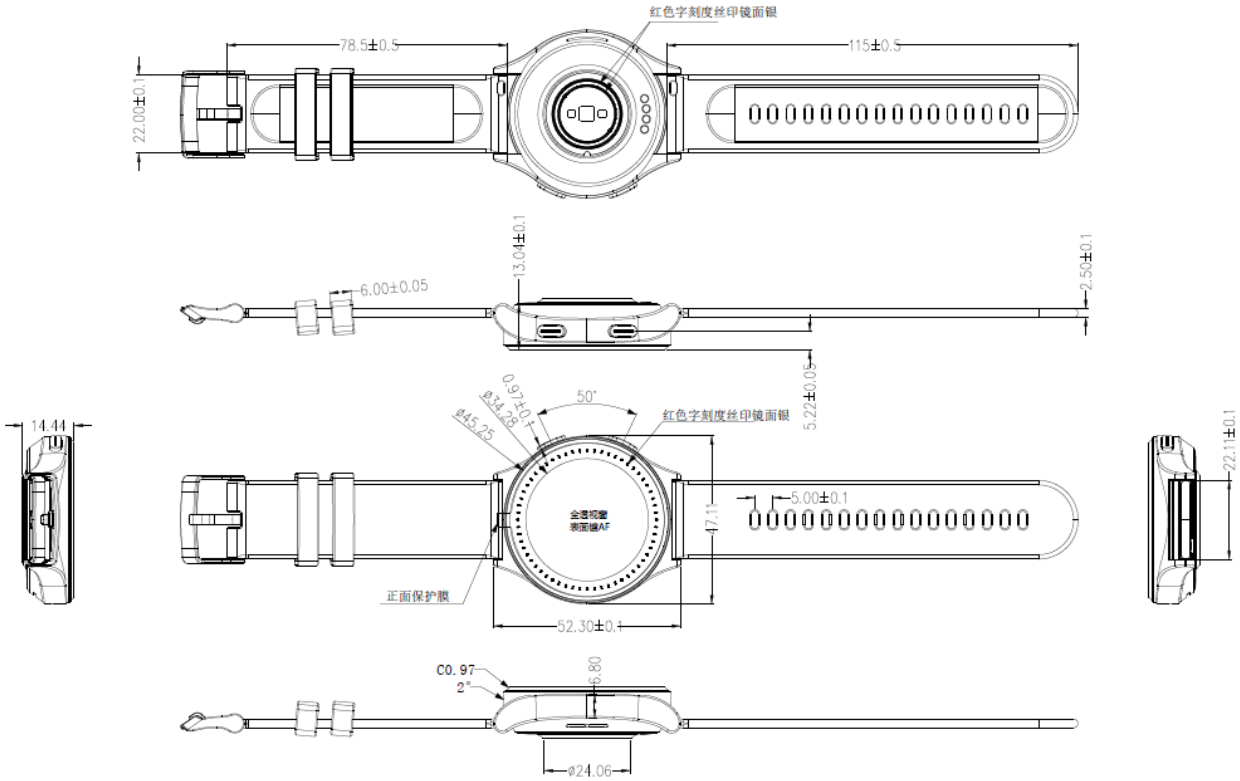
Mode	Screen	Remark
Fly	Off	● Default mode ● Press and hold the Home (top) button for more than 5 seconds to power on the device.
Working-Normal	Displays user operations	● Press the Home button to return to the Time page.
Working-SOS	Displays SOS alert page	● Press and hold the Call (bottom) button for more than 3 seconds to activate SOS mode.
Charging	Displays charging status	● Shows "100%" when fully charged.

1.4.2 Rear/Top View



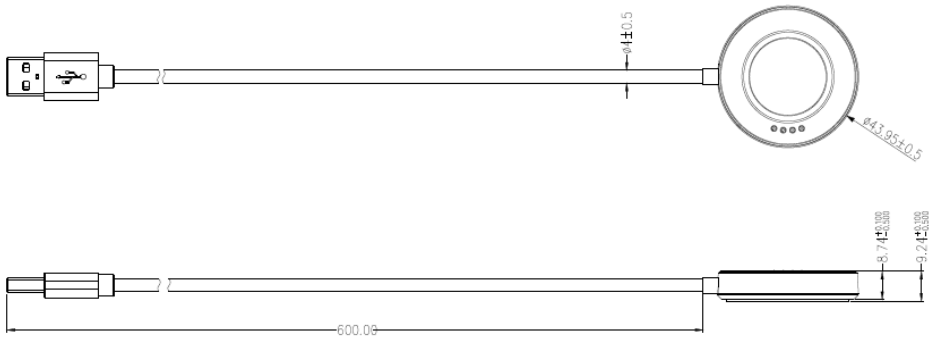
1.5 System Dimensions

1.5.1



(Unit: mm)

1.5.2



(Unit: mm)