Applications

RedLore Anchors are intended for use in on-site positioning applications, also called Real-Time Location Systems (RTLS). The anchors should be installed at fixed locations in the infrastructure. Once installed they will aid in locating the *wireless positioning tags* and *wireless sensor tags*.

The High Resolution Anchors estimate the distance to the tag based on time-of-flight of the signal (UWB) for a typical accuracy of 0.5m (1.5 ft). The Standard Resolution Anchors estimate the distance to the tags based on proximity or on the received wireless signal strength indicator (RSSI), with a typical accuracy of 3m to 5m (10 to 16 ft).

Product Variants **Standard Resolution** Accuracy (SR)

	Indoor Anchor SR 	**Outdoor Anchor SR** 	**Outdoor Anchor SR** 	
			Long Life	**Very Long Life**
RTLS Positioning				
Standard Resolution (RSSI)	✓	✓	✓	
High Resolution (UWB)	–	–	–	
Wireless Communication				
Wirepas low-power mesh	✓	✓	✓	
Bluetooth	✓	✓	✓	
Power				
Battery type	2x FR6 (Li-FeS_2)	4x ER14505 (Li-$SOCl_2$)	on request	
Battery life[1]	Up to 4 years	Up to 10 years	10 years[2]	20 years[3]
Replaceable	✓	✓	✓	
Mechanical				
Ingress Protection	IP40	IP67	IP66	
Weight	56g	129g	336g	443g
Dimensions (L x W x H) excl. mounting flanges	74 x 45 x 24 mm 2.91 x 1.77 x 0.94"	72 x 72 x 23 mm 2.83 x 2.83 x 0.91"	119 x 91 x 38 mm 4.70 x 3.60 x 1.47"	119 x 91 x 63 mm 4.70 x 3.60 x 2.48"
Dimensions (L x W x H) incl. mounting flanges	No flanges	No flanges	161 x 91 x 38 mm 6.34 x 3.60 x 1.47"	161 x 91 x 63 mm 6.34 x 3.60 x 2.48"
Mounting	Double sided tape	Double sided tape, mounting bracket (optional)	Screws, double sided tape	
Flammability			UL94 HB	

Product Variants **High Resolution** Accuracy (HR)

	Anchor HR	Long Life Anchor HR
		
RTLS Positioning		
Standard Resolution (RSSI)	✓	
High Resolution (UWB)	✓	
Wireless Communication		
Wirepas low-power mesh	✓	
Bluetooth	✓	
Power		
Battery type	2x ER14505 (Li-$SOCl_2$)	2x ER34615 (Li-$SOCl_2$) pack
Battery life[1]	2 years[2]	7 years[2]
Replaceable	✓	
Mechanical		
Weight	121g	443g
Dimensions (L x W x H) excl. flanges	119 x 91 x 38 mm (4.70 x 3.60 x 1.47")	119 x 91 x 63 mm (4.70 x 3.60 x 2.48")
Dimensions (L x W x H) incl. flanges	161 x 91 x 38 mm (6.34 x 3.60 x 1.47")	161 x 91 x 63 mm (6.34 x 3.60 x 2.48")
Mounting	Screws, double sided tape	
Regulatory		
FCC ID	2AMYT-AHR	2AMYT-LLAHR

[1] The indicated battery life is for a typical installation. Actual battery life depends on the installation, the environment and the use case, and may be different from the indicated battery life.

[2] Long Life Anchor HR cannot be shipped via air to comply with international transport regulations.

Technical Specifications

Positioning accuracy	High Resolution (HR products only)	• Supports high-resolution tags with Time-of-Flight-based UWB positioning for an accuracy down to 15cm (6"). COMMENT: The effective accuracy depends on the installation and the environment.
	Standard Resolution (HR and SR products)	• Supports standard-resolution tags with Received Signal Strength (RSSI)-based positioning for an accuracy down to 3m (10 ft). COMMENT: The effective accuracy depends on the installation and the environment.
Communication	On-site network	• Wirepas Low-Power Mesh (Wirepas Mesh) • BT5.2, Bluetooth Low Energy (BLE) • Maximum Transmit Power: 4dBm • Transmit frequency: 2400–2483.5 MHz (unlicensed ISM band)
Power	Battery	• Lithium Thionyl Chloride (Li-SoCl2) chemistry • Not classified as Dangerous Goods • Can be transported via air cargo with batteries except Long Life Anchor HR
Operating parameters	Temperature	• -20 – +60°C

Regulatory		• FCC: 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 warning: Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Note: 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 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. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. • CE compliant; in conformance with Radio Equipment Directive 2014/53/EU: • EN 60950-1: A2: 2013 3.1 (a): Health and Safety of the User • ETSI EN 300 328 V 2.1.1 3.2: Effective use of spectrum allocated • ETSI EN 301 489-1 V2.1.1 & 3.1 (b): Electromagnetic Compatibility • ETSI EN 301 489-17 V3.1.1 • ROHS compliant.

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