

ALIEN TECHNOLOGY®

ALR-H460 User Guide

August 2019



Legal Notices

Copyright ©2019 Alien Technology, LLC. All rights reserved.

Alien Technology, LLC and/or its affiliated companies have intellectual property rights relating to technology embodied in the products described in this document, including without limitation certain patents or patent pending applications in the U.S. or other countries.

This document and the products to which it pertains are distributed under licenses restricting their use, copying, distribution and decompilation. No part of this product documentation may be reproduced in any form or by any means without the prior written consent of Alien Technology, LLC and its licensors, if any. Third party software is copyrighted and licensed from Licensors. Alien, Alien Technology, the Alien logo, Nanoblock, FSA, Gen2Ready, Squiggle, the Squiggle logo, Nanoscanner and other graphics, logos, and service names used in this document are trademarks of Alien Technology, LLC and/or its affiliated companies in the U.S. and other countries. All other trademarks are the property of their respective owners. U.S. Government approval required when exporting the product described in this documentation.

Federal Acquisitions: Commercial Software -- Government Users Subject to Standard License Terms and Conditions. U.S. Government: If this Software is being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), then the Government's rights in the Software and accompanying documentation shall be only as set forth in this license; this is in accordance with 48 C.F.R. 227.7201 through 227.7202-4 (for Department of Defense (DoD) acquisitions) and with 48 C.F.R. 2.101 and 12.212 (for non-DoD acquisitions).

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARANTEES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGMENT ARE HEREBY DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

FCC Compliance

The ALR-H460 contains the ALR-M702-FCC (FCC ID: P65ALRM702)

This equipment has been tested and found to comply with the limits for 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. 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. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with instruction manual, may cause harmful interference with radio communications. There is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference, 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 the receiver
- Connect the equipment to a different outlet than that to which the receiver is connected
- Consult the dealer or an experienced radio communications technician

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.

Any change or modification to this product voids the user's authority to operate per FCC Part 15 Subpart A. Section 15.21 regulations.

Caution

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government for extremities. The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR performance is 2.23 W/kg simultaneous transmission and the maximum single transmitter SAR is 1.21 W/kg. See FCC OET Bulletin 56 "Hazards of radio frequency and electromagnetic fields" and Bulletin 65 "Human exposure to radio frequency electromagnetic fields." This device was tested for typical extremity operations. Use only the supplied antenna.

Alien Technology®

User Guide ALR-H460 RFID Reader Subsystem



Table of Contents

1	INTRODUCTION	2
	1.1 Audience	2
	1.2 Overview	2
	1.3 Device Specification	2
2	VERIFYING THE ALR-H460	2
3	ENGINEERING TEST MODE	2
л Л		
4		∠
5	REVISION HISTORY	3

1 Introduction

This manual provides you with safety information, technical support information, and sources for additional product information for the ALR-H460 RFID Reader Subsystem.

1.1 Audience

We assume that the readers of this guide have some previous knowledge of RFID, and other relevant technologies.

1.2 Overview

The ALR-H460 RFID Reader Subsystem Comprises the ALR-M702-FCC (FCC ID: P65ALRM702), the BRA-40U antenna and the interface PCB. It is designed for use with specific handheld data terminals.

1.3 Device Specification

ALR-M702-FCC Characteristics					
Dimensions	67x87x77 mm				
Weight	115 grams typical				
Antenna	BRA-40U				
Power and Control	9 Pin Connector				
Operating Temp.	-20°C to +55°C				
Storage Temp.	-25°C to +70°C				
Humidity	5%RH-95%RH (non-condensing)				
RFID (UHF)	UHF 902-928MHz, EPC Class1 Gen2 / ISO18000-6C				

2 Verifying the ALR-H460

Alien Technology provides custom demonstration tool for testing the ALR-H460 in conjunction with a handheld data terminal.

3 Engineering Test Mode

Alien Technology provides custom engineering tool to control the ALR-H460 frequency and power in conjunction with a handheld data terminal for engineering testing and evaluation.

4 Technical Support

Alien Technology, LLC 845 Embedded Way San Jose, CA. 95138 Tel: 1.408.782.3900

5 Revision History

ECO #	Revision	Date:	Originator:	Description of Change:
TBD	A	8/8/19	J. Hattick	Initial release