NX-5500E Express Manager
Installation Guide
Zebra and the Zebra head graphic are registered trademarks of ZIH Corp. The Symbol logo is a registered trademark of Symbol Technologies, Inc., a Zebra Technologies company.

© 2015 Symbol Technologies, Inc.
1 Introduction

The NX-5500E Express Manager provides the power of award winning WiNG 5 architecture in a cost-effective, multi-site, Enterprise class WLAN management platform, without compromising performance and scale. The NX-5500E can support WLAN networks that can scale up to 512 Express Access Points, ideal for small-to-mid sized businesses. The NX-5500E is pre-installed with 128 Express Access Point licenses for immediate operation.

The NX-5500E provides a state of the art user interface allowing administrators to easily configure sites with minimal steps. An intuitive auto-provisioning policy supports trouble-free multi-site deployment. The built-in analytics display important information about the Express Access Points, radios, and all devices connected to WLANs on easy to understand screens to monitor and manage every aspect of the wireless network.

1.1 Document Conventions

The following graphical alerts are used in this document to indicate notable situations:

NOTE Tips, hints, or special requirements that you should take note of.

CAUTION Care is required. Disregarding a caution can result in data loss or equipment malfunction.

WARNING! Indicates a condition or procedure that could result in personal injury or equipment damage.

1.2 Warnings

- Read all installation instructions and verify correct equipment installation before connecting the appliance to its power source.
- Remove jewelry and watches before installing this equipment.
- Verify the unit is grounded before connecting it to the power source.
- Verify any device connected to this unit is properly wired and grounded.
- Connect all power cords to a properly wired and grounded electrical circuit.
- Verify the electrical circuits have appropriate overload protection.
- Attach only approved power cords to the device.
- Verify the power connector and socket are accessible at all times during the operation of the equipment.
- Do not install this equipment or work with its power circuits during thunderstorms or other weather conditions that could cause a power surge.
Verify there is adequate ventilation around the device, and ambient temperatures meet equipment operation specifications.

1.3 Site Preparation

- Consult your power and Ethernet cabling map to determine specific equipment placement, power drops, network connectivity, and so on.
- Assign installation responsibility to the appropriate personnel.
- Identify and document where all installed components are located.
- Provide a sufficient number of power drops for your equipment.
- Ensure adequate, dust-free ventilation to all installed equipment.
- Identify and prepare Ethernet and console port connections.
- Verify cable lengths are within the maximum allowable distances for optimal signal transmission.

1.4 Package Contents

An NX-5500E ships with the following:

- NX-5500E Express Manager
- Console cable
- Left (L) Right (R) rack mount bracket assemblies, six M3 screws
- NX-5500E Express Manager Installation Guide (this document)
1.5 Cautionary Statements

**CAUTION** There are no user-serviceable components inside the NX-5500E. Opening the chassis will void the warranty.

**CAUTION** BIOS settings on the NX-5500E should not be changed. Changing any settings in the BIOS will void the warranty on the NX-5500E.

**CAUTION** To prevent the NX-5500E from overheating, never install in an enclosed area not properly ventilated or cooled. For proper airflow, keep the front and back sides of the NX-5500E clear of obstructions and away from the exhaust of other equipment.

**CAUTION** The recommended operating temperature is 32°F to 104°F/0°C to 40°C. Installation in a closed or multi-rack assembly may raise the immediate ambient temperature above the average room temperature. Exercise due caution.

**CAUTION** Ensure the electrical circuit through which the NX-5500E is powered can safely accommodate a 100 Watt power supply.

**CAUTION** It is recommended you connect the NX-5500E to an Uninterruptible Power Supply (UPS). There are instances in which the system software could become corrupt and un-recoverable in the event of power loss, for example, during a system upgrade, database backup or database restore operation.

1.6 Safety Instructions for Rack Mount Installations

- **Rack Mount Brackets** - Do not lift the NX-5500E using the rack mount brackets.
- **Rack Mount Kits** - Use only industry-standard mounting kits when installing the NX-5500E, as improper mounting may result in hardware failure and hazardous conditions.
- **Elevated Operating Ambient** - If installing the NX-5500E in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than the room ambient temperature. Consideration should be given to installing the appliance in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
- **Reduced Air Flow** - Installation of the NX-5500E in a rack should be such that the amount of air flow required for safe operation is not compromised.
- **Mechanical Loading** - Mounting the NX-5500E in a rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
• **Circuit Overloading** - When connecting the NX-5500E to the supply circuit, ensure protection is provided to the NX-5500E and supply wiring to avoid circuit overloads. Carefully review the equipment nameplate ratings when addressing this concern.

• **Reliable Earthing** - Reliable earthing of the rack mounted NX-5500E should be maintained.

• Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

### 1.7 Power Supply Status LEDs

An NX-5500E has a power LED on the front of the enclosure for power supply status. The LED functionality for the power supply is as follows:

<table>
<thead>
<tr>
<th><strong>State</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>No power to power supply.</td>
</tr>
<tr>
<td>Green</td>
<td>Power supply on. Normal operation.</td>
</tr>
</tbody>
</table>

### 1.8 Power Protection

• If possible, use a circuit dedicated to data processing equipment. Commercial electrical contractors are familiar with wiring for data processing equipment and can help with the load balancing of these circuits.

• Install surge protection. Be sure to use a surge protection device between the electricity source and the NX-5500E.

• Install an *Uninterruptible Power Supply* (UPS). A UPS provides continuous power during a power outage. Some UPS devices have integral surge protection. UPS equipment requires periodic maintenance to ensure reliability. A UPS of the proper capacity for the data processing equipment must be purchased.
2 Hardware Installation

The following figure represents the front of the NX-5500E:

To prepare for the installation:

1. Match the model number on the purchase order with the model numbers in the packing list and on the
   NX-5500E.
2. Verify the contents of the box include the intended NX-5500E and the included hardware matches the
   package contents.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NX-5500E-100R0-WR</td>
<td>NX-5500E with 128 Express AP adoption package preloaded</td>
</tr>
</tbody>
</table>
2.1 Installing the NX-5500E

1. Mount the NX-5500E in an equipment rack using industry standard rack mount brackets (19in).
   Use 5.5lbs of torque to screw the brackets to the enclosure. Repeat the same procedure for the right side:

2. Connect the power cord to the back of the NX-5500E.

3. Connect the Ethernet cables and connect the NX-5500E to the network.

4. Using a standard RS-232 console cable, connect the serial port on the NX-5500E to a serial port on a separate computer (the "configuration computer").

5. Use the following parameters for the serial connection:

<table>
<thead>
<tr>
<th>Terminal Type</th>
<th>VT 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port</td>
<td>COM port</td>
</tr>
<tr>
<td><strong>Terminal Settings</strong></td>
<td>19200bps transfer rate 8 data bits no parity 1 stop bit no flow control no hardware compression</td>
</tr>
</tbody>
</table>

6. Apply power to the NX-5500E.

7. Verify the NX-5500E LCD panel is illuminated.
3 Basic System Configuration

To set a basic configuration and access WiNG Express management functions:

1. Power up the device and connect an Ethernet cable to one of the ports.
2. The WiNG Express Manager UI is supported on popular browsers like Safari, Opera, Firefox, IE10 (and later) and Chrome. It is not supported on mobile or tablet browsers. Open a browser and enter the default IP address of **192.168.0.1**.
   The login screen displays:

   ![Login Screen](image)

3. Enter the default username **admin** in the **Username** field.
4. Enter the default password **admin123** in the **Password** field.
5. Click **Login**. You are prompted to change your password.
6. Enter a new password, then enter it again to confirm it.
7. Click **Confirm**. The password change is confirmed.
8. Select the **Country Code** specific to this deployment location.

   **NOTE** The country code must be set at the deployment site.

Selecting the correct country is central to legal operation. Each country has its own regulatory restrictions concerning electromagnetic emissions and the maximum RF signal strength that can be transmitted. SKU's only support certain countries (for example: a US SKU only includes US, Guam, Puerto Rico, American Samoa, US Virgin Islands and Mariana Islands).
The device automatically displays a Dashboard where users can assess network health and conduct a diagnostic review of network performance.

**NOTE** At some point in the initial setup, the default password should be changed to enhance the security of the WiNG Express Manager network. Refer to the Configuration > Management screen to change the default password to a more secure password.

9. Expand the Configuration menu item and select Basic.

### Basic Configuration Settings

- **System Name**: Provide a System Name used as the NX-5500E's network identifier. The System Name is a required parameter.
- **Country Name**: If the Country Code was not set when the device was initially powered on, set the country now to ensure legal operation. The system's wireless capabilities are disabled until the required country code is set.
- **Timezone**: Use the drop-down menu to specify the geographic timezone where the system is deployed. Different geographic time zones have daylight savings clock adjustments, so specifying the timezone correctly is important to account for geographic time changes.
- **Date & Time**: Set the date, hour and minute for the current system time. Specify whether the current time is AM or PM.
- **NTP Server**: Optionally provide the IP address of a NTP server resource. Network Time Protocol (NTP) manages time and/or network clock synchronization within the network. NTP is a client/server implementation. The NX-5500E (a NTP client) periodically synchronizes its clock with a master clock.

10. Set the following Basic Configuration Settings:

- **System Name** - Provide a System Name used as the NX-5500E's network identifier. The System Name is a required parameter.
- **Country Name** - If the Country Code was not set when the device was initially powered on, set the country now to ensure legal operation. The system's wireless capabilities are disabled until the required country code is set.
- **Timezone** - Use the drop-down menu to specify the geographic timezone where the system is deployed. Different geographic time zones have daylight savings clock adjustments, so specifying the timezone correctly is important to account for geographic time changes.
- **Date & Time** - Set the date, hour and minute for the current system time. Specify whether the current time is AM or PM.
- **NTP Server** - Optionally provide the IP address of a NTP server resource. Network Time Protocol (NTP) manages time and/or network clock synchronization within the network. NTP is a client/server implementation. The NX-5500E (a NTP client) periodically synchronizes its clock with a master clock.
(a NTP server). For example, an NX-5500E resets its clock to 07:04:59 upon reading a time of 07:04:59 from its designated NTP server.

- **Default Gateway** - Optionally specify the default gateway IP address used to communicate with the system's main router.

11. The **Firmware** section displays the current and alternate firmware versions, the date which the most recent firmware was installed and the last upgrade status. In the URL field, enter the complete path to the firmware file. Alternately click **Advanced** and provide the correct directory path to the target firmware file.

### Firmware

<table>
<thead>
<tr>
<th><strong>Current Boot (version)</strong></th>
<th>primary (5.8.0.0-021D)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternate Boot (version)</strong></td>
<td>secondary (5.0.0.0-021D)</td>
</tr>
<tr>
<td><strong>Install Date</strong></td>
<td>03/20/2015</td>
</tr>
<tr>
<td><strong>Last Upgrade Status</strong></td>
<td>✔</td>
</tr>
<tr>
<td><strong>Last Upgrade Message</strong></td>
<td>Successful</td>
</tr>
</tbody>
</table>

**Protocol**

Select the connection protocol used for updating device firmware. Available options include:

- **tftp**
- **ftp**
- **http**

**Port**

Use the spinner control, or manually enter the value to define the port used for firmware updates.

**IP Address**

Enter the IP address of the server used to update the firmware. This option is not valid for cf and usb1-4.
12. The **Licenses** section displays the number of AP Licenses, which is the number of APs available for adoption under the restrictions of the license. The number of licenses currently in use is displayed below that.

<table>
<thead>
<tr>
<th><strong>Hostname</strong></th>
<th>Provide the hostname of the server used to update the firmware. This option is not valid for cf and usb1-4.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User Name</strong></td>
<td>Define the user name used to access either a FTP server.</td>
</tr>
<tr>
<td><strong>Password</strong></td>
<td>Specify the password for the user account to access a FTP server.</td>
</tr>
<tr>
<td><strong>Path / File</strong></td>
<td>Specify the path to the firmware file. Enter the complete relative path to the file on the server.</td>
</tr>
</tbody>
</table>
13. Refer to the following **Cluster** configuration information:

A cluster is a set of wireless devices working collectively to provide redundancy and load sharing amongst its members.

**Cluster**

<table>
<thead>
<tr>
<th>State: running</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode:</td>
</tr>
</tbody>
</table>
|   - Active  
|   - StandBy           |
| Name: new              |
| Master Priority: 10    |
| Member VLAN: 1         |
| Member IP:             |
|   - 70.1.1.7 Centralized |
|   - 70.1.1.8 Centralized |

Join Cluster

<table>
<thead>
<tr>
<th>State</th>
<th>Displays a status indicating whether the cluster is running or disabled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>A cluster member can be in either an Active or Standby mode. All active members can adopt Access Point radios. Standby members only adopt Access Points when an active member has failed, or sees an Access Point not adopted. The default cluster mode is Active.</td>
</tr>
<tr>
<td>Name</td>
<td>Define a name for the cluster unique to its configuration. The name cannot exceed 64 characters.</td>
</tr>
<tr>
<td>Master Priority</td>
<td>Set a priority from 1 - 255, with the higher value being given higher priority. This configuration is the device's priority to become cluster master. In a cluster environment, one member is elected cluster master. This setting is the device's priority to become cluster master. The default value is 128.</td>
</tr>
</tbody>
</table>
14. To configure Static Routes click the + Add button and specify the IP addresses and network masks in the Network Address column. Then provide the Gateway used to route traffic.

| Member VLAN | Optionally enable a member VLAN, then use the spinner control to designate the VLAN where cluster members are reachable. Specify a VLAN from 1 - 4094. |
| Member IP | Specify the IP addresses of the VLAN's cluster members using the IP Address table. |
| Join Cluster | Click the Join Cluster button to add the device to the cluster configured in the fields above. |

15. Select Apply to save the basic system configuration settings.
4 Specifications

4.1 Physical Specifications

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>1U, 19&quot; rack mountable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16.93 in W x 1.73 in H x 12.63 in D</td>
</tr>
<tr>
<td></td>
<td>430 mm W x 44.2 mm H x 320.7 mm D</td>
</tr>
<tr>
<td>Weight</td>
<td>10 lbs</td>
</tr>
</tbody>
</table>

4.2 Environmental Specifications

<table>
<thead>
<tr>
<th>Operating Temperature</th>
<th>32°F to 104°F/0°C to 40°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>-4°F to 167°F/-20°C to 70°C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>5% to 85% RH at 104°F/40°C (non-condensing)</td>
</tr>
<tr>
<td>Storage Humidity</td>
<td>5% to 95% RH at 104°F/40°C (non-condensing)</td>
</tr>
</tbody>
</table>

4.3 Power Specifications

<table>
<thead>
<tr>
<th>Power Supply</th>
<th>100 W AC-DC power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Power Consumption</td>
<td>30 Watts</td>
</tr>
</tbody>
</table>
5 Regulatory Information

This device is approved under the Zebra Technologies Corporation.

This guide applies to the following Model Numbers: NX-55 devices.

All Zebra devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Local language translations are available at the following website: www.zebra.com/support.

Any changes or modifications to Zebra equipment, not expressly approved by Zebra, could void the user’s authority to operate the equipment.

5.1 Radio Frequency Interference Requirements - FCC

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 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.

5.2 Radio Frequency Interference Requirements - Canada

CAN ICES-3 (A)/NMB-3(A).

5.3 CE Marking and European Area (EEA)

WARNING! This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.
5.4 Statement of Compliance

Zebra hereby declares that this device is in compliance with all the applicable Directives, 2004/108/EC, 2006/95/EC, and 2011/65/EU. A Declaration of Conformity may be obtained from www.zebra.com/doc.

Japan Voluntary Control Council for Interference (VCCI) Class A ITE

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることあります。

Korea Warning Statement for Class A ITE

<table>
<thead>
<tr>
<th>기종별</th>
<th>사용자 안내문</th>
</tr>
</thead>
<tbody>
<tr>
<td>A급 기기</td>
<td>이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.</td>
</tr>
</tbody>
</table>

Chinese Warning Statement for Class A ITE

警告

此为A级产品，在生活环境中，该产品可能会造成无线干扰。在这种情况下，可能需要用户采取有效的措施。

Ukraine

Дане обладнання відповідає вимогам технічного регламенту №1057, № 2008 на обмеження щодо використання деяких небезпечних речовин в електричних та електронних пристроях.

Thailand

เครื่องโทรคมนาคมและอุปกรณ์ มีความสงสัยเกี่ยวกับความขัดแย้งทาง กฎหมาย กรณี.
5.5 **Waste Electrical and Electronic Equipment (WEEE)**

**English:** For EU Customers: All products at the end of their life must be returned to Zebra for recycling. For information on how to return product, please go to: [www.zebra.com/weee](http://www.zebra.com/weee).

**Français:** Clients de l’Union Européenne: Tous les produits en fin de cycle de vie doivent être retournés à Zebra pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : [www.zebra.com/weee](http://www.zebra.com/weee).

**Español:** Para clientes en la Unión Europea: todos los productos deberán entregarse a Zebra al final de su ciclo de vida para que sean reciclados. Si desea más información sobre cómo devolver un producto, visite: [www.zebra.com/weee](http://www.zebra.com/weee).

**Български:** За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Zebra за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: [www.zebra.com/weee](http://www.zebra.com/weee).


**Italiano:** per i clienti dell’UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Zebra al fine di consentire il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: [www.zebra.com/weee](http://www.zebra.com/weee).

**Português:** Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Zebra para reciclagem. Para obter informações sobre como devolver o produto, visite: [www.zebra.com/weee](http://www.zebra.com/weee).

**Nederlands:** Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Zebra te worden teruggezonden voor recycling. Raadpleeg [www.zebra.com/weee](http://www.zebra.com/weee) voor meer informatie over het terugzenden van producten.

**Polski:** Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Zebra w celu ich utylizacji. Informacje na temat zwrotu produktów znajdziej na stronie internetowej [www.zebra.com/weee](http://www.zebra.com/weee).

**Čeština:** Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Zebra k recyklyaci. Informace o způsobu vrácení produktu najdete na webové stránce: [www.zebra.com/weee](http://www.zebra.com/weee).

**Eesti:** EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Zebra’ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: [www.zebra.com/weee](http://www.zebra.com/weee).

**Magyar:** Az EU-ban vásárlóknak: Minden tönkrement termék a Zebra vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalókért látogasson el a [www.zebra.com/weee](http://www.zebra.com/weee).


**Suomi:** Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Zebra-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa [www.zebra.com/weee](http://www.zebra.com/weee).

**Dansk:** Til kunder i EU: Alle produkter skal returneres til Zebra til recirkulering, når de er udjent. Læs oplysningerne om retur og produktbeskrivelse på [www.zebra.com/weee](http://www.zebra.com/weee).

**Ελληνικά:** Για πελάτες της Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Zebra για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση [www.zebra.com/weee](http://www.zebra.com/weee) στο Διαδίκτυο.

5.5.1 Turkish WEEE Statement of Compliance

EEE Yönetmeliğine Uyundur
6 Support

If you have a problem with your equipment, contact support for your region. Contact information is available at: www.zebra.com/support

When contacting support, please provide the following information:

- Serial number of the unit
- Model number or product name
- Software type and version number

Support responds to calls by e-mail, telephone, or fax within the time limits set forth in support agreements. If you purchased your product from a business partner, contact that business partner for support.

Customer Support Web Sites

The Support site, located at www.zebra.com/support provides information and online assistance including developer tools, software downloads, product manuals and online repair requests.

Manuals

www.zebra.com/support
7 Zebra Technologies Corporation ("Zebra") End-User Software License Agreement

BY INSTALLING AND/OR USING THIS PRODUCT, YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, UNDERSTAND IT AND AGREE TO BE BOUND ITS TERMS. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, ZEBRA IS NOT WILLING TO LICENSE THE PRODUCT TO YOU, AND YOU MUST NOT INSTALL OR USE THIS PRODUCT.

Definitions

Grant of License

Zebra Technologies Corporation ("Zebra") grants you ("Licensee" or "you") a personal, nonexclusive, nontransferable, revocable, nonassignable, limited license to use the software and documentation ("Product(s)") subject to the terms and conditions of this Agreement. You shall use the Products only for your internal business purposes, exclusively to support Zebra devices. Any use of the Products outside of the conditions set forth herein is strictly prohibited and will be deemed a breach of this Agreement resulting in immediate termination of your License. In the event of a breach of this Agreement, Zebra will be entitled to all available remedies at law or in equity (including immediate termination of the license without notice, immediate injunctive relief and repossession of all Products unless Licensee is a Federal agency of the United States Government).

You shall not distribute, sublicense, rent, loan, lease, export, re-export, resell, ship or divert or cause to be exported, re-exported, resold, shipped or diverted, directly or indirectly, the Products under this Agreement. You shall not, and shall not permit others to: (i) modify, translate, decompile, bootleg, reverse engineer, disassemble, or extract the inner workings of the Products; (ii) copy the look-and-feel or functionality of the Products; (iii) remove any proprietary notices, marks, labels, or logos from the Products; (iv) rent or transfer all or some of the Products to any other party without Zebra's prior written consent; or (v) utilize any computer software or hardware which is designed to defeat any copy protection device, should the Products be equipped with such a protection device.

Title to all copies of Products will not pass to Licensee at any time and remains vested exclusively in Zebra. All intellectual property developed, originated, or prepared by Zebra in connection with the Products remain vested exclusively in Zebra, and this Agreement does not grant to Licensee any intellectual property rights.

Portions of the Products are protected by United States patent and copyright laws, international treaty provisions, and other applicable laws. Therefore, you must treat the Products like any other copyrighted material (e.g., a book or musical recording) except that you may make one copy of the Product solely for
back-up purposes. Unauthorized duplication of the Products constitutes copyright infringement, and in the United States is punishable in federal court by fine and imprisonment.

**Limited Warranty**

Zebra warrants for a period of ninety (90) days from your receipt of the Products to you that the Software, under normal use, will perform substantially in accordance with Zebra’s published specifications for that release level of the Software. The written materials are provided “AS IS” and without warranty of any kind. Zebra’s entire liability and your sole and exclusive remedy for any breach of the foregoing limited warranty will be, at Zebra’s option, the provision of a downloadable patch or replacement code, or a refund of the unused portion of your bargained for contractual benefit up to the amount paid for the Products.

**Disclaimer**

THIS LIMITED WARRANTY IS THE ONLY WARRANTY PROVIDED BY ZEBRA, AND ZEBRA MAKES, AND YOU RECEIVE, NO OTHER WARRANTIES OF ANY KIND, WHETHER EXPRESS, IMPLIED, STATUTORY, OR IN ANY COMMUNICATION WITH YOU. ZEBRA SPECIFICALLY DISCLAIMS ANY WARRANTY INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE. ZEBRA DOES NOT WARRANT THAT THE PRODUCTS WILL MEET YOUR REQUIREMENTS, OR THAT THE OPERATION OF THE PRODUCTS WILL BE UNINTERRUPTED OR ERROR FREE, OR THAT DEFECTS IN THE PRODUCTS WILL BE CORRECTED. ZEBRA MAKES NO WARRANTY WITH RESPECT TO THE CORRECTNESS, ACCURACY, OR RELIABILITY OF THE PRODUCTS. Some jurisdictions do not allow the exclusion of implied warranties, so the above exclusion may not apply to you.

**Limitation of Liability**

THE TOTAL LIABILITY OF ZEBRA UNDER THIS AGREEMENT FOR DAMAGES SHALL NOT EXCEED THE FAIR MARKET VALUE OF THE PRODUCTS LICENSED UNDER THIS AGREEMENT. IN NO EVENT WILL ZEBRA BE LIABLE IN ANY WAY FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL OR PUNITIVE DAMAGES OF ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST BUSINESS PROFITS, OR LIABILITY OR INJURY TO THIRD PERSONS, WHETHER FORESEEABLE OR NOT, REGARDLESS OF WHETHER ZEBRA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some jurisdictions do not permit limitations of liability for incidental or consequential damages, so the above exclusions may not apply to you. This Limitation of Liability provision survives the termination of this Agreement and applies notwithstanding any contrary provision in this Agreement. Licensee must bring any action under this Agreement within one (1) year after the cause of action arises.
Maintenance

Unless provided for in a separate agreement, Zebra shall not be responsible for maintenance or field service of the Products.

High Risk Activities

The Products are not fault-tolerant and are not designed, manufactured or intended for use or resale as on-line control software in hazardous environments requiring fail-safe performance, such as in the operation of nuclear facilities, aircraft navigation or communication systems, air traffic control, direct life support machines, or weapons systems, in which the failure of the Products could lead directly to death, personal injury, or severe physical or environmental damage ("High Risk Activities"). Zebra and its suppliers specifically disclaim any express or implied warranty of fitness for High Risk Activities, and if you elect to use the Products in any High Risk Activities, you agree to indemnify, defend, and hold Zebra harmless from and against any and all costs, damages, and losses related to that use.

U.S. Government

If you are acquiring the Products on behalf of any unit or agency of the U.S. Government, the following shall apply. Use, duplication, or disclosure of the Products is subject to the restrictions set forth in subparagraphs (c) (1) and (2) of the Commercial Computer Software - Restricted Rights clause at FAR 52.227-19 (JUNE 1987), if applicable, unless being provided to the Department of Defense. If being provided to the Department of Defense, use, duplication, or disclosure of the Products is subject to the restricted rights set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013 (OCT 1988), if applicable. Products may or may not include a Restricted Rights notice, or other notice referring specifically to the terms and conditions of this Agreement. The terms and conditions of this Agreement shall each continue to apply, but only to the extent that such terms and conditions are not inconsistent with the rights provided to you under the aforementioned provisions of the FAR and DFARS, as applicable to the particular procuring agency and procurement transaction.

Assignment

Except as otherwise provided in this section, neither party may assign this Agreement, or any of its rights or obligations under this Agreement, without the prior written approval of the other party, which will not be unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary approval will be void. Notwithstanding the foregoing, for any Zebra acquisition, merger, consolidation, reorganization, or similar transaction, or any spin-off, divestiture, or other separation of a Zebra business, Zebra may, without the prior written consent of the other party: (i) assign its rights and obligations under this Agreement, in whole or in part, or (ii) split and assign its rights and obligations under this Agreement
so as to retain the benefits of this Agreement for both Zebra and the assignee entity(ies) (and their respective Affiliates) following the split.

**Governing Law**

This Agreement shall be governed by the laws of the United States of America to the extent that they apply and otherwise by the laws of the State of New York without regard to its conflict of laws provisions or by the internal substantive laws of the country to which the Products is shipped if end-user customer is a sovereign governmental entity. The terms of the U.N. Convention on Contracts for the International Sale of Goods do not apply. In the event that the Uniform Computer Information Transaction Act, any version of this Act, or a substantially similar law (collectively "UCITA") becomes applicable to a Party's performance under this Agreement, UCITA does not govern any aspect of this End User License Agreement or any license granted under this End-User License Agreement, or any of the parties' rights or obligations under this End User License Agreement. The governing law will be that in effect prior to the applicability of UCITA.

**Compliance with Laws**

Licensee will comply with all applicable laws and regulations, including export laws and regulations of the United States. Licensee will not, without the prior authorization of Zebra and the appropriate governmental authority of the United States, in any form export or re-export, sell or resell, ship or reship, or divert, through direct or indirect means, any item or technical data or direct or indirect products sold or otherwise furnished to any person within any territory for which the United States Government or any of its agencies at the time of the action, requires an export license or other governmental approval. Violation of this provision will be a material breach of this Agreement, permitting immediate termination by Zebra.

**Third Party Software**

The Products may contain one or more items of Third-Party Software. The terms of this Agreement govern your use of any Third-Party Software UNLESS A SEPARATE THIRD-PARTY SOFTWARE LICENSE IS INCLUDED, IN WHICH CASE YOUR USE OF THE THIRD-PARTY SOFTWARE WILL THEN BE GOVERNED BY THE SEPARATE THIRD-PARTY LICENSE.

**Open Source Software**

The Products may contain one or more items of Open Source Software. Open Source Software is software covered by a publicly available license governed solely under Copyright law, whereas the complete terms and obligations of such license attach to a licensee solely through the act of copying, using and/or distribution of the licensed software, such obligations often include one or more of attribution obligations, distribution obligations, copyright obligations, and intellectual property
encumbrances. The use of any Open Source Software is subject to the terms and conditions of this Agreement as well as the terms and conditions of the corresponding license of each Open Source Software package. If there is a conflict between the terms and conditions of this Agreement and the terms and conditions of the Open Source Software license, the applicable Open Source Software license will take precedence. Copies of the licenses for the included Open Source Software, if any, as well as their attributions, acknowledgements, and software information details, are provided in the electronic copy of this Agreement, which is available in the Legal Notices or README file associated with the Product. Zebra is required to reproduce the software licenses, acknowledgments and copyright notices as provided by the authors and owners, thus, all such information is provided in its native language form, without modification or translation. Depending on the license terms of the specific Open Source Software, source code may not be provided. Please reference and review the entire Open Source Software information to identify which Open Source Software packages have source code provided or available. For instructions on how to obtain a copy of any source code made publicly available by Zebra related to Open Source Software distributed by Zebra, you may send your request (including the Zebra Product name and version, along with the Open Source Software specifics) in writing to: Zebra Technologies Corporation, Open Source Software Director, Legal Department, 3 Overlook Point, Lincolnshire, IL 60069 USA.

©2015 ZIH Corp and/or its affiliates. All rights reserved. Zebra and the stylized Zebra head are trademarks of ZIH Corp., registered in many jurisdictions worldwide. All other trademarks are the property of their respective owners.
## 8 NX-5500E China RoHS Compliance

<table>
<thead>
<tr>
<th>部件名称 (Parts)</th>
<th>有害物质</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>铅 (Pb)</td>
</tr>
<tr>
<td>金属部件 (Metal Parts)</td>
<td>X</td>
</tr>
<tr>
<td>电路模块 (Circuit Modules)</td>
<td>X</td>
</tr>
<tr>
<td>电缆及电缆组件 (Cables and Cable Assemblies)</td>
<td>O</td>
</tr>
<tr>
<td>塑料和聚合物部件 (Plastic and Polymeric Parts)</td>
<td>O</td>
</tr>
<tr>
<td>光学和光学组件 (Optics and Optical Components)</td>
<td>O</td>
</tr>
<tr>
<td>电池 (Batteries)</td>
<td>O</td>
</tr>
</tbody>
</table>

本表格依据 SJ/T 11364 的规定编制。

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。 (企业可在此处，根据实际情况对上表中打“×”的技术原因进行进一步说明。)

This table was created to comply with China RoHS requirements.