# FX7500
# RFID READER
# QUICK START GUIDE

## Introduction

FX7500 Series readers provide real time, seamless tag processing for EPC Class1 Gen2 compliant tags. This Quick Start Guide provides information about installing and connecting the reader. For more information refer to the *FX Series RFID Readers Integrator Guide*, available at http://www.motorolasolutions.com/support

## Reader Installation

1. Unpack the reader.
2. Set up the reader and tags on a desktop.
3. Connect the antenna to antenna Port 1.



Antenna Port 1
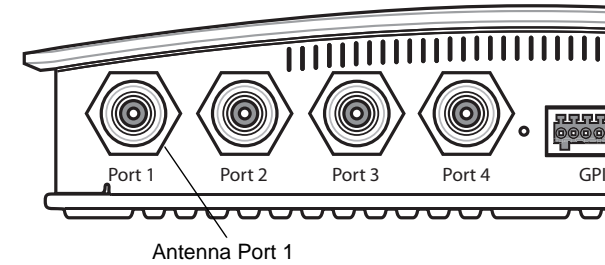
4. Connect the Ethernet cable to the Ethernet port.
   Connecting the reader to a subnet that supports DHCP is recommended. This installation procedure is not guaranteed to work if DHCP is disabled in the reader and if the reader is connected directly to a PC.



10/100BaseT Ethernet Port (with POE)    Power
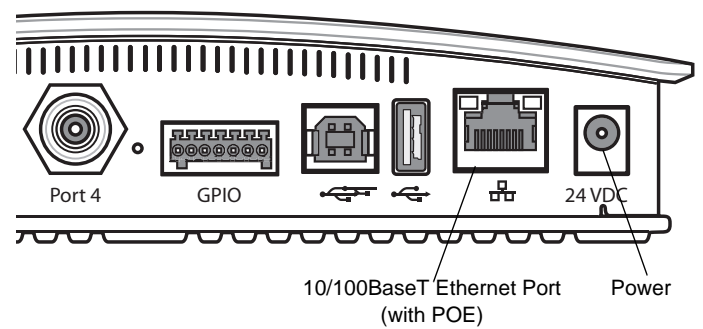
5. Connect the AC power supply to a power outlet and connect to the power port.

   **NOTE** This step is not required for networks supporting Power-over-Ethernet (POE).

The green power LED remains lit after successful installation.

## Connecting to the Reader

To connect via host name:

1. Open a browser. Recommended browsers are IE10 (disabling Compatibility View is recommended), Chrome v29, and FireFox 24.
2. Enter the host name, provided on a label on the reader, in the browser (e.g., http://fx7500cd3b0d) and press **Enter**. The **User Login** window appears and the reader is ready.

**NOTE** Connect the reader to a network that supports host name registration and lookup to ensure the network can access the reader using the host name. For instance, some networks can register hostnames through DHCP. When first connecting to the reader, it is recommended to keep DHCP enabled in both the PC and in the reader, although it is not guaranteed that host name will work all the time.

As an alternative to using the host name on the reader label, construct it using the reader MAC address on the bottom of the reader. To do this, enter the prefix FX7500, followed by the last six characters of the MAC address. For example, for a MAC address of 0023683BA63A, use the prefix FX7500, followed by 3BA63A. Enter **http://FX75003BA63A** in the browser address bar to access the reader.

## Additional Information

Following are links to additional information and software:

- Product Manuals:
  http://www.motorolasolutions.com/support/fx7500
  This page includes the following guides:

  - *FX7500 RFID Reader Quick Start Guide* (p/n MN000070*xxx*)
  - *FX7500 RFID Reader Integrator Guide* (p/n MN000026*xxx*)
  - *RFID Reader Software Interface Control Guide* (p/n 72E-131718-*xx*)
  - *RFID Demo Applications User Guide* (p/n 72E-160038-*xx*)

- Data Sheet: http://www.motorolasolutions.com/FX7500

- PowerSession and other related software:
  http://www.motorolasolutions.com/support/fx7500

## Regulatory Information

This provides information for the Motorola, FX series RFID Reader products, Regulatory Model No: FX7500. For information on setting up and using the reader, refer to the *FX Series RFID Reader Integration Guide* at www.motorolasolutions.com/support.

All Motorola devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required. Regulatory information is available from: www.motorolasolutions.com/support.

Motorola devices must be professionally installed. The Radio Frequency Output Power will not exceed the maximum allowable limit for the country of operation. Any changes or modifications to Motorola equipment, not expressly approved by Motorola, could void the authority to operate the equipment.

### Regulatory Certification

The device is compliant with the following values and antenna characteristics:

| FX7500 | US | EU |
|---|---|---|
| Max Conducted RF Power at Antenna Input | + 30.0 dBm | +29.2 dBm |
| Max Antenna Gain Allowed | + 6 dBiL | +5.5 dBiL |
| Max Radiated Power Allowed | 4W EIRP | 2W ERP |
| Antenna Type | Circularly Polarized Plate | N/A |

### Antennas

When using antennas not supplied by Motorola, the antennas must comply with all of the appropriate specifications and criteria listed in the **Regulatory Certification** table.

### Country Approvals

Regulatory markings are applied to the device signifying the radio(s) are approved for use in the following countries: United States, Canada and Europe. Local language translations are available at: www.motorolasolutions.com/support.

Please refer to the Motorola Declaration of Conformity (DoC) for details of other country markings. This is available at: http://www.motorola.com/doc.

Brasil: Declarações Regulamentares para FX7500 - Brasil

Nota: A marca de certificação se aplica ao Transceptor, modelo FX7500. Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Para maiores informações sobre ANATEL consulte o site: www.anatel.gov.br

CHILE:Este equipo cumple con la Resolución No 403 de 2008, de la Subsecretaria de telecomunicaciones, relativa a radiaciones electromagnéticas.

### Korea Warning Statement for Class B ITE

| B ( ) | (B ) |
|---|---|
|  |  |

### Taiwan

低功率電波輻射性電機管理辦法

第十二條
經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條
低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信規定作業之無線電通信。
低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

⚠ Operation of the device without regulatory approval is illegal.

### Ukraine

This equipment corresponds to requirements of the Technical Regulation No. 1057, 2008 on restrictions as to the use of some dangerous substances in electric and electronic devices.

# Health and Safety Recommendations

## ⚠ Warning for Use of Wireless Devices

Please observe all warning notices with regard to the usage of wireless devices.

## Potentially Hazardous Atmospheres

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

### Safety in Hospitals

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

## Use With Hearing Aids

When some wireless devices are used near some hearing devices (hearing aids and cochlear implants), users may detect a buzzing, humming, or whining noise. Some hearing devices are more immune than others to this interference noise, and wireless devices also vary in the amount of interference they generate. In the event of interference you may want to consult your hearing aid supplier to discuss solutions.

## Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.

## ⚠ FCC / EU RF Exposure Guidelines

## Safety Information

### Reducing RF Exposure - Use Properly

Only operate the device in accordance with the instructions supplied.

### International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on "International" human exposure to eletromagnic fields refer to the Motorola Declaration of Conformity (DoC) at http://www.motorola.com/doc.

### US and Canada

To comply with FCC RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 24 cm from all persons.

### EU

To comply with EU RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 24 cm from all persons.

## Power Supply

Use ONLY a LISTED Motorola, Type no. PWRS-14000 (24Vdc / 500mA min), Direct Plug-In Power supply, marked Class 2 or LPS (IEC60950-1, SELV). Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous.

## Battery

⚠ Caution: Risk of Explosion if Battery is replaced by an incorrect Type. Dispose of Used Batteries According to the Instructions.

## Air Handling Space Applications

This device is suitable for use in Environmental Air Handling Space (EAHS) in accordance with Section 300-22(c) of the National Electric Code, and Sections 2-128, 12-010(3) and 12-100 of the Canadian Electrical Code, Part 21, CSA C22.1.

All Cables intended for interconnecting the FX7500 to other devices shall be suitable rated for use in Environmental Air Handling Space per UL 2043.

Devices such as Power Adaptors, PoE (Power Injectors), antennas shall not be installed in the Environmental Air Handling Space unless they are suitable for use in the EAHS per UL 2043.

## Wireless Devices Country Approvals

Regulatory markings, subject to certification, are applied to the device signifying the radio is approved for use in the following countries:  United States, Canada and Europe[1]

Please refer to the Motorola Declaration of Conformity (DoC) for details of other country markings. This is available at http://www.motorola.com/doc.

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⚠ Operation of the device without regulatory approval is illegal.

Note[1]: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## Country Selection - Worldwide Version Only

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal.

## Frequency of Operation – USA (FCC) and Canada

The range of channels is limited by firmware.

### Radio Frequency Interference Requirements - FCC

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

### Radio Transmitters (Part 15)

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.

### Canada

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.

### Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that permitted for successful communication.

This device has been designed to operate with the antennas listed below , and having a maximum gain of 6dBi. Antennas not included in this list or having a gain greater than 6dBi are strictly prohibited for use with this device. The required antenna impedance is 50 ohms.

### Radio Transmitters

This device complies with RSS 210 of Industry & Science Canada. 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.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than the 6dBi permitted for successful communication.

This device has been designed to operate with antennas having a maximum gain of 6dBi. Antennas having a gain greater than 6dBi are strictly prohibited for use with this device. The required antenna impedance is 50ohms.

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## ⊂€ Marking and European Economic Area (EEA)

RFID devices for use through the EEA have the following restrictions:

- Maximum radiated transmit power of 2W ERP in the frequency range 865.6-867.6MHz

### Statement of Compliance

Motorola hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.  A Declaration of Conformity may be obtained from http://www.motorola.com/doc.

## 🗑 Waste Electrical and Electronic Equipment (WEEE)

Bulgarish: За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Motorola за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: http://www.motorolasolutions.com/recycling/weee.

Čeština: Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Motorola k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: http://www.motorolasolutions.com/recycling/weee.

Dansk: Til kunder i EU: Alle produkter skal returneres til Motorola til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: http:/ www.motorolasolutions.com/recycling/weee.

Deutsch: Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Motorola zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter http://www.motorolasolutions.com/recycling/weee.

Ελληνικά: Για πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Motorola για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση http://www.motorolasolutions.com/recycling/weee στο Διαδίκτυο.

English: For EU Customers: All products at the end of their life must be returned to Motorola for recycling. For information on how to return product, please go to: http://www.motorolasolutions.com/recycling/weee.

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

Eesti: EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Motorola'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: http://www.motorolasolutions.com/recycling/weee.

Suomi: Asiakkaat Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Motorola-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa http://www.motorolasolutions.com/recycling/weee.

Français : Clients de l'Union Européenne : Tous les produits en fin de cycle de vie doivent être retournés à Motorola pour recyclage. Pour de plus amples informations sur le retour de produits, consultez : http://www.motorolasolutions.com/recycling/weee.

Magyar: Az EU-ban vásárlóknak: Minden tönkrement terméket a Motorola vállalathoz kell eljuttatni újrahasznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalókért látogasson el a http://www.motorolasolutions.com/recycling/weee.

Italiano: per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Motorola al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web: http://www.motorolasolutions.com/recycling/weee.

Lietuvių: ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti grąžinti utilizuoti į kompaniją „Motorola". Daugiau informacijos, kaip grąžinti gaminį, rasite: http://www.motorolasolutions.com/recycling/weee.

Latviešu: ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Motorola otreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Motorola, lūdzu, skatiet: http://www.motorolasolutions.com/recycling/weee.

Malti: Ghal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-ħajja ta' l-użu tagħhom, iridu jiġu rritornati għand Motorola għar-riċiklaġġ. Għal aktar tagħrif dwar kif għandek tirritorna l-prodott, jekk jogħġbok żur: http://www.motorolasolutions.com/recycling/weee.

Nederlands: Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Motorola te worden teruggezonden voor recycling. Raadpleeg http://www.motorolasolutions.com/recycling/weee voor meer informatie over het terugzenden van producten.

Polski: Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Motorola w celu ich utylizacji. Informacje na temat zwrotu produktów znajdują się na stronie internetowej  http://www.motorolasolutions.com/recycling/weee.

Português: Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Motorola para reciclagem. Para obter informações sobre como devolver o produto, visite: http://www.motorolasolutions.com/recycling/weee.

Românesc: Pentru clienții din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Motorola pentru reciclare. Pentru informații despre returnarea produsului, accesați: http://www.motorolasolutions.com/recycling/weee.

Slovenčina: Pre zákazníkov z krajín EU: Všetky výrobky musia byť po uplynutí doby ich životnosti vrátené spoločnosti Motorola na recykláciu. Bližšie informácie o vrátení výrobkov nájdete na: http://www.motorolasolutions.com/recycling/weee

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Slovenski: Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Motorola za reciklažo. Za informacije o vračilu izdelka obiščite: http://www.motorolasolutions.com/recycling/weee.

Svenska: För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Motorola för återvinning. Information om hur du returnerar produkten finns på http://www.motorolasolutions.com/recycling/weee.

Türkçe: AB Müşterileri için: Kullanım süresi dolan tüm ürünler geri dönüştürme için Motorola'ya iade edilmelidir. Ürünlerin nasıl iade edileceği hakkında bilgi için lütfen şu adresi ziyaret edin: http://www.motorolasolutions.com/recycling/weee.

### TURKISH WEEE Statement of Compliance

EEE Yönetmeligine Uygundur

## Service Information

If you have a problem using the equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact Motorola Solutions Support at: www.motorolasolutions.com/support.

For the latest version of FX7500 guides and software, go to: www.motorolasolutions.com/support.

## Warranty

For the complete Motorola hardware product warranty statement, go to: http://www.motorolasolutions.com/warranty

## For Australia Only:

This warranty is given by Motorola Solutions Australia Pty Limited (ABN16 004 742 312) of Tally Ho Business Park, 10 Wesley Court. Burwood East, Victoria. Our goods come with guarantees that cannot be excluded under the Australia Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. Motorola Solutions Australia's limited warranty above is in addition to any rights and remedies you may have under the Australian Consumer Law. If you have any queries, please call Motorola Solutions Australia at 1800 457 439. For the most updated warranty terms, visit our website: http://www.motorola.com/Business/XA-EN/Pages/Contact_Us

## China RoHS

This table was created to comply with China RoHS requirements.

| (Parts) | (Pb) | (Hg) | (Cd) | (Cr$^{6+}$) | (PBB) | (PBDE) |
|---|---|---|---|---|---|---|
| (Metal Parts) | X | O | O | O | O | O |
| (Circuit Modules) | X | O | O | O | O | O |
| (Cables and Cable Assemblies) | O | O | O | O | O | O |
| (Plastic and Polymeric Parts) | O | O | O | O | O | O |
| (Optics and Optical Components) | O | O | O | O | O | O |
| (Batteries) | O | O | O | O | O | O |

O                                                    SJ/T11363-2006

X                                                    SJ/T11363-2006