



***DMR Radio Authorization  
Operation Guide***



## **Copyright Information**

Hytera is the trademark or registered trademark of Hytera Communications Corporation Limited in PRC and/or other countries or areas. Hytera retains the ownership of its trademarks and product names. All other trademarks and/or product names that may be used in this manual are properties of their respective owners.

The product described in this manual may include Hytera's computer programs stored in memory or other media. Laws in PRC and/or other countries or areas protect the exclusive rights of Hytera with respect to its computer programs. The purchase of this product shall not be deemed to grant, either directly or by implication, any rights to the purchaser regarding Hytera's computer programs. Any of Hytera's computer programs may not be copied, modified, distributed, decompiled, or reverse-engineered in any manner without the prior written consent of Hytera.

## **Disclaimer**

Hytera endeavors to achieve the accuracy and completeness of this manual, but no warranty of accuracy or reliability is given. All the specifications and designs are subject to change without notice due to continuous technology development. No part of this manual may be copied, modified, translated, or distributed in any manner without the express written permission of us.

We do not guarantee, for any particular purpose, the accuracy, validity, timeliness, legitimacy or completeness of the Third Party products and contents involved in this document.

If you have any suggestions or would like to learn more details, please visit our website at:

<http://www.hytera.com>.

# Contents






|   |          |
|---|----------|
| <b>Documentation Information .....</b>                          | <b>1</b> |
| <b>1. Overview.....</b>   | <b>2</b> |
| 1.1 Modes and Features .....                                    | 2        |
| 1.2 Restriction.....  | 2        |
| <b>2. Operations .....</b>                                      | <b>3</b> |
| 2.1 Providing Product Information .....                         | 3        |
| 2.2 Applying for License .....                                  | 3        |
| 2.3 Importing the License .....                                 | 3        |
| <b>Abbreviations .....</b>                                      | <b>6</b> |
| <b>Appendix: Registration Failure Causes and Solutions.....</b> | <b>7</b> |

# Documentation Information

This section describes the conventions and revision history of this document.

## Conventions

### Icon

| Icon   | Description  |
|--|--|
|  <b>Tip</b>     | Indicates information that can help you make better use of your product.   |
|  <b>Note</b>    | Indicates references that can further describe the related topics.         |
|  <b>Caution</b> | Indicates situations that could cause data loss or equipment damage.       |
|  <b>Warning</b> | Indicates situations that could cause minor personal injury.               |
|  <b>Danger</b>  | Indicates situations that could cause major personal injury or even death. |

### Notation

| Item        | Description   |
|-------------|---|
| <b>Bold</b> | The text in boldface denotes the name of a hardware button or a software interface element. For example, press the <b>PTT</b> key.                        |
| ->          | The symbol directs you to access a multi-level menu. For example, to select <b>New</b> from the File menu, we will describe it as follows: “File -> New”. |

## Revision History

| Version | Date        | Description   |
|---------|-------------|---|
| R2.0    | August 2017 | <ul style="list-style-type: none"> <li>● Added Only Narrow Band, Digital Standard, Recorder and SFR features for the authorization.</li> <li>● Modified the operations of <a href="#">Importing the License</a>.</li> </ul> |
| R1.0    | March 2016  | Initial Release.  |

# 1. Overview

## 1.1 Modes and Features

Some advanced features of our products (including portable radio, mobile and repeater) need to be paid, such as IP Multi-site Connect, Roaming, Encryption and DMR Trunking, etc. When you want to use these features, you need to pay for a license to obtain the authorization.

Modes and features that need to be paid are as follows:

| Product  | Work Mode   | Feature   |
|----------|---|---|
| Repeater | Conventional (Analog & Digital, Analog), XPT Trunking.  | Basic Encrypt, Full Encrypt-Hytera, Full Encrypt-DMRA, Scrambler, IP Multi-site Connect, XPT Multi-sites, XPT Max Site Number.  |
| Radio    | Conventional (Analog & Digital, Analog), DMR Trunking, MPT Trunking, XPT Trunking, XPT Multi-sites. | Basic Encrypt, Full Encrypt-Hytera, Full Encrypt-DMRA, Roam, Scrambler, Priority Interrupt, Remote Monitor, XPT Multi-sites, Digital Standard, Only Narrow Band, Recorder (PD98X only) and SFR (PD98X only) |

### Caution

To enable DMR or MPT Trunking mode, besides the authorization, you must open an account for the radio in the Network Management System (NMS) of the Trunking system. Otherwise, the trunking features will be unavailable.

The authorization will be completed before the product leaves the factory. If you want to use more paid-features, you need to apply for a new license. For procedures, refer to section [2. Operations](#).

## 1.2 Restriction

- For the CPS below R7.6, it only supports to import the “.efcl” License.
- For the CPS below R8.1 (including R7.6), it only supports to import the “.fcx” License.
- For the CPS R8.1 or above, it supports to import the “.fcr” or “.fcx” License.
- The features authorized in previous versions are still available after the radio or repeater is upgraded to R8.1 or above.

### Caution

After the authorization, any modification to the authorization information or serial number of radio is forbidden; otherwise the radio may not work. If it happens accidentally, contact our customer service for help.

## 2. Operations

### 2.1 Providing Product Information

Please provide the product information to the local salesman or dealer.

The product information includes firmware and serial number, which can be viewed via menu or CPS. If you apply for the trunking features, you need to provide the model number which can be obtained via CPS.

| Product Information | Menu Path  | CPS Path                              |
|---------------------|--|---------------------------------------|
| Firmware Version    | <ul style="list-style-type: none"> <li>● Radio: Menu -&gt; Settings -&gt; Device Info -&gt; Firmware Ver</li> <li>● Repeater: Main Menu -&gt; Radio Info -&gt; Firmware Ver</li> </ul>   | Radio Information -> Firmware Version |
| Serial Number       | <ul style="list-style-type: none"> <li>● Radio: Menu -&gt; Settings -&gt; Device Info -&gt; Serial Number</li> <li>● Repeater: Main Menu -&gt; Radio Info -&gt; Serial Number</li> </ul> | Radio Information -> Serial Number    |
| Model Number        | /  | Radio Information -> Model Number     |

### 2.2 Applying for License

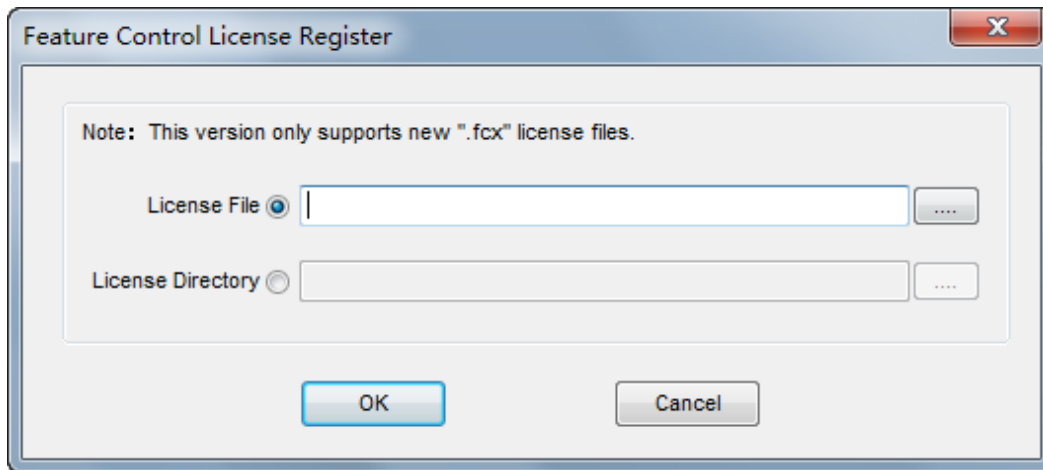
After obtaining the product information, the local salesman or dealer will create the MO workflow to apply for a license, and then sends the license to you.

### 2.3 Importing the License

You can import the license into the CPS to activate the subscribed features.

**Step 1** Connect the radio or repeater to PC.

**Step 2** Run the CPS, and select “Tools -> Feature Control License Register” on the menu bar.




**Step 3** Select the import method in the “Feature Control License Register” dialog box.

There are two methods to import the license:

- License File: This option is applicable to import single license.
- License Directory: This option is applicable to import multiple licenses

The former is the default one and introduced hereinafter.

**Step 4** Click the “” on the right, and select the license in the pop-up dialog box, and then click “OK” to import the license.

If the registration is failed, please refer to [Appendix: Registration Failure Causes and Solutions](#) for details.

**Step 5** Read the data from the radio via CPS.

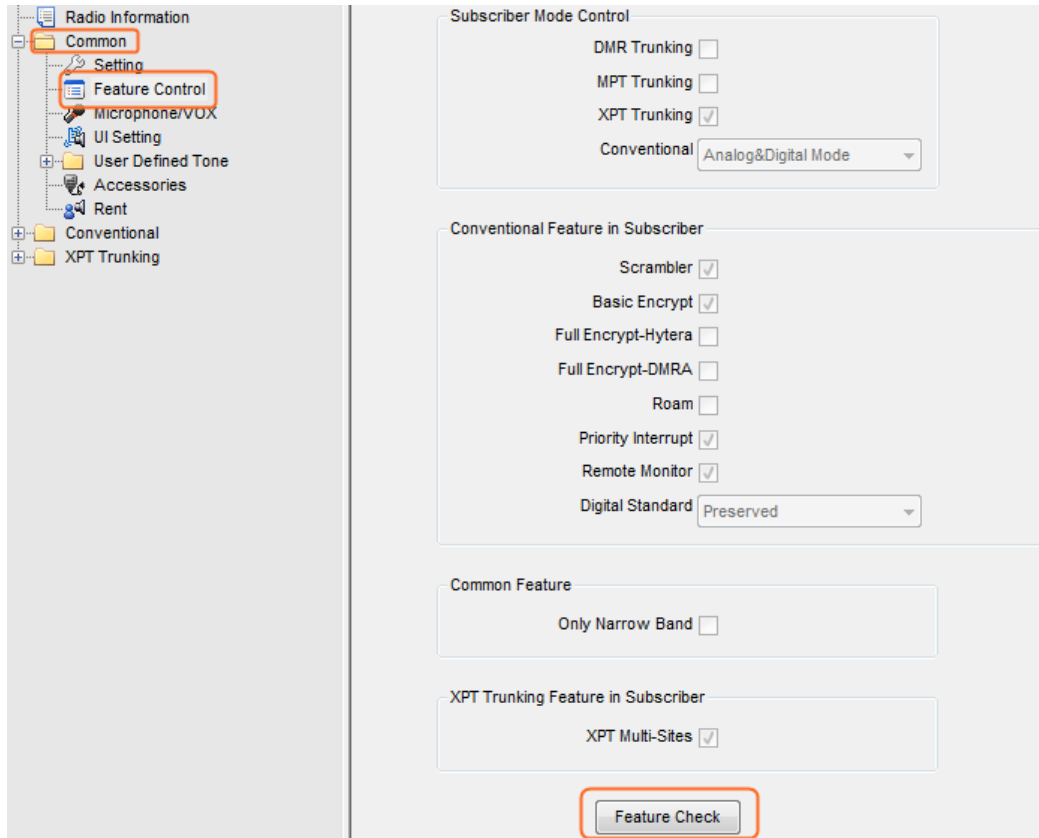
**Step 6** Configure the corresponding features in CPS.

CPS path: Common -> Feature Control

- For radio or repeater R8.1 or above, the authorized features will be automatically checked.
- For those below R8.1, please click “Feature Check” in “Feature Control” interface to activate corresponding features.

 **Caution**

The authorization will fail if the serial number of radio does not match the one used to apply for the license.



**Step 7** Write the data into the radio via CPS

The authorization will take effect after the configuration is written to the radio.

**⚠ Caution**

For trunking features, after reading from radio, you need to select “Option -> Preferences” on the menu bar of the CPS, and then select the corresponding system type on the pop-up dialog box.



## Abbreviations

| Abbreviations | Full Name                     |
|---------------|-------------------------------|
| CPS           | Customer Programming Software |
| DMR           | Digital Mobile Radio          |
| IP            | Internet Protocol             |
| XPT           | Extended Pseudo Trunk         |

## Appendix: Registration Failure Causes and Solutions

| Failure Message                 | Causes  | Solutions   |
|---------------------------------|---|---|
| Read SN or RCDB version error.  | The radio and PC may be not well connected.                           | Please re-connect the radio and the PC, and then try again.   |
| Failed to match SN in fcr file. | The SN in the license does not match that of the connected radio.     | Please check whether the two SNs are the same. If not, please contact the customer service for help.                        |
| SN doesn't match.               | The SN in the license does not match that of the connected radio.     | Please check whether the two SNs are the same. If not, please contact the customer service for help.                        |
| Authorization failed.           | The user has low privilege to run the CPS.                            | Please run the CPS as the administrator, then try again.  |
|                                 | The user has no permission to import the license.                     | Please try again as the administrator.  |
|                                 | Some files under the installation directory of the CPS are read only. | Check all files under the installation directory, and modify the attribute of those “ready-only” files, and then try again. |
|                                 | The license is incorrect.   | Please contact the customer service for help.   |
| Send or receive command error.  | The radio and PC may be not well connected.                           | Please re-connect the radio and the PC, and then try again.   |



is the trademark or registered trademark of Hytera Communications Corporation Limited.  
© 2017 Hytera Communications Corporation Limited. All Rights Reserved.

Address: HYT Tower, Hi-Tech Industrial Park North, Beihuan  
RD., Nanshan District, Shenzhen, China  
Postcode: 518057  
<http://www.hytera.com>