

TitanSDR-HF, TitanSDR-VLF/LF, TitanSDR-AB Receiver

Installation Manual
v.5.0e



Enablia S.r.l. (Italy) 2021

Before using the receiver, read carefully this Manual.

**Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)**



The symbol of the crossed out wheelie bin indicates that in the European Union this product, and all items marked with this symbol, can not be disposed of as unsorted waste but must be disposed of separately at the end of their useful life.

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1. Overview

Package contents

The package contains the following items:

- TitanSDR receiver
- 6V linear AC/DC power adapter
- USB cable
- USB pen drive (Figure 1)
- Installation Manual



Figure 1

Receiver panels

The front panel has an indicator green led: the led turns on when the receiver is switched on (Figure 2).



Figure 2

The rear panel (Figure 3) includes :

1. USB 2.0 port
2. Power input socket
3. On/off switch

4. SMA IF input (IF-IN)
5. BNC antenna input (ANT. IN)



Figure 3

AC/DC Adapter

For best performance and safety, please use only the provided 6V linear AC/DC power adapter (Figure 4).



Figure 4

2. System Requirements

Before installing the receiver, ensure that your system meets the following requirements.

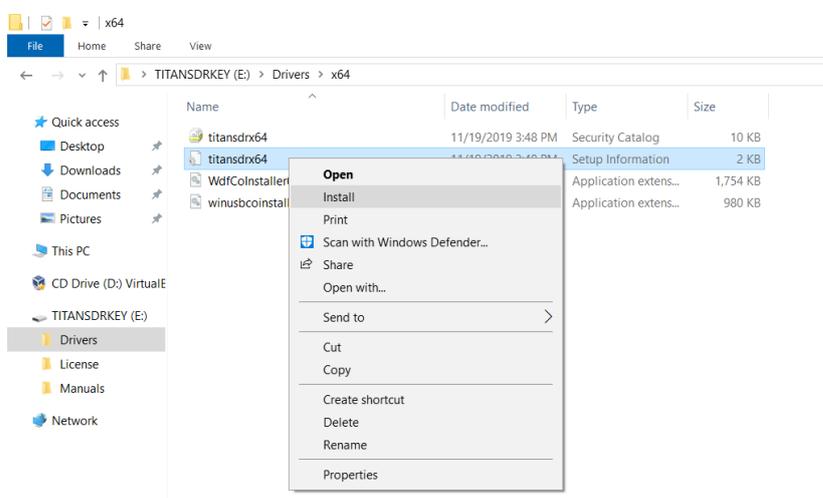
- Intel Core i7 or equivalent
- 16 GB RAM
- 150 MB of free hard disk space for software installation (extra space is required for recording of wideband and narrowband channels)

- Network Interface Card
- 1 spare USB2.0 Hi-Speed port
- Sound card
- 1024 x 768 minimum resolution video card and monitor
- Windows Operating System (Windows7, Windows10)

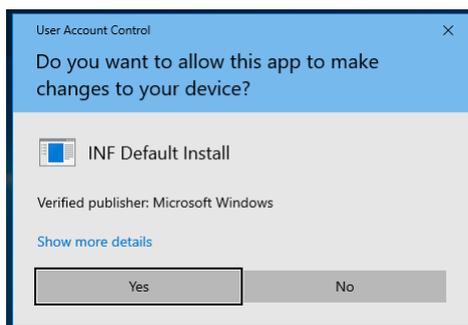
3. Installation

The following installation procedure applies to all versions of TitanSDR in Windows 7 and Windows 10. The default installation folder varies depending on the TitanSDR version. **Please follow the steps below leaving the receiver disconnected from the PC**, unless otherwise specified (connect it only when requested).

1. Plug the provided pen drive with setup files in any available USB port: it will be shown in file explorer as "TITANSRKEY"
2. Locate the folder TITANSRKEY:\Driver\x64 (for 64-bit Windows version) or TITANSRKEY:\Driver\x32 (for 32-bit version)
3. Right-click the information file titansdrx64.inf (or titansdrx32.inf depending on the OS version) and click "Install"

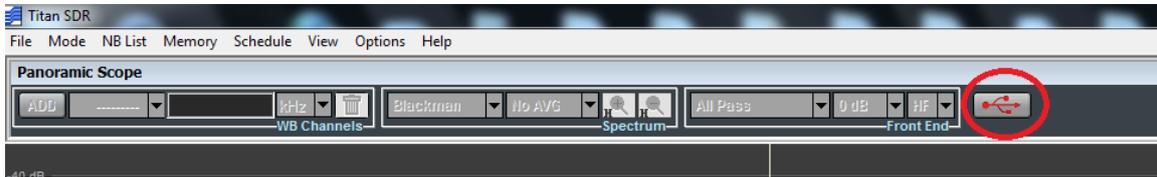


4. Click “Yes” on the User Account Control pop-up and, if requested, check “Always trust software from Enablia S.r.l.”

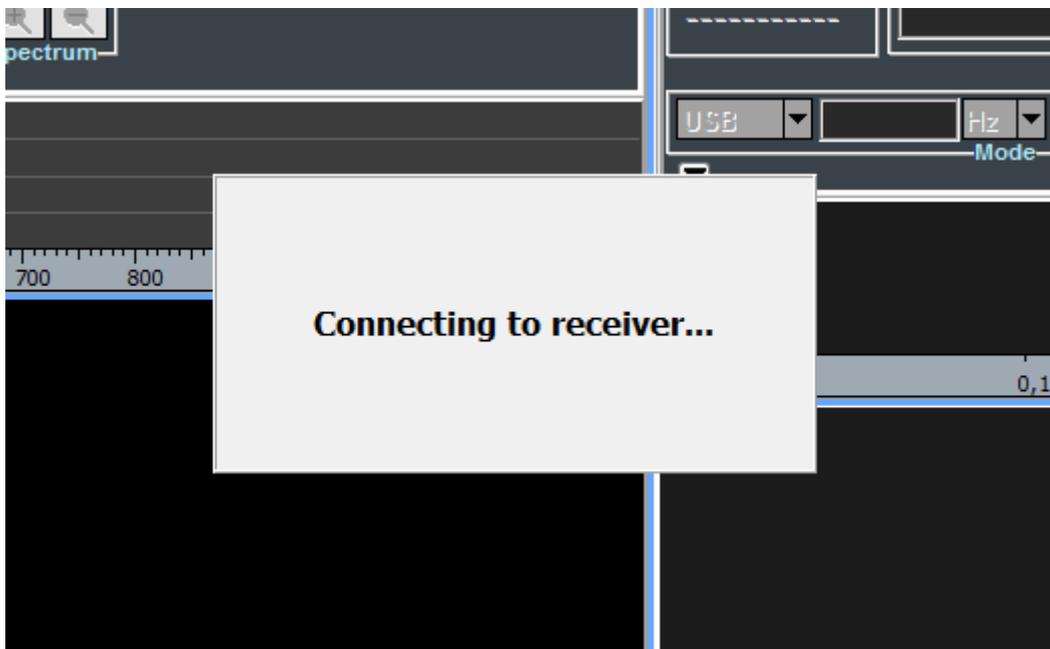


5. Double-click `TITANSDRKEY:\TitanSDR_x.y.z_Setup.exe` and follow the on-screen instructions to complete the installation.
6. Copy the license file "`TITANSDRKEY:\License\license.bin`" from the pen drive and paste it to the installation folder "`C:\Program Files x(86)\TitanSDR\License`". The default installation folder varies depending on the TitanSDR version (e.g. "TitanSDR_HF" for the HF version and TitanSDR_AB for the Air-Band version). Please refer to Chapter 5 for further details on the license file.
7. Plug the supplied AC/DC power adapter into a wall outlet and to the receiver power socket. Then switch on the adapter by the red switch (please refer to Chapter 4 for further details on receiver connections).
8. Run the TitanSDR software by double clicking the icon on your desktop and wait for application to open. Please note that TitanSDR desktop icon varies depending on the version of TitanSDR: if there are multiple versions, click on the currently version you just installed. Configure software firewall (if present) to allow TitanSDR processes communicating through the loopback address (see Chapter 4 for further details).

9. On TitanSDR application, click the “UsbConnection” button (the rightmost button of the Panoramic Scope toolbar)



10. The message “Connecting to receiver” is displayed: wait for connection to complete.



11. When receiver connection succeeds, spectrum is displayed in the Panoramic Scope.

4. Notes on receiver connection and use

Antenna

Connect the antenna to the receiver BNC connector (Figure 3, connector 5).

Use the SMA connector as IF input (Figure 3, connector 4) to bypass RF attenuators, preselector filters (TitanSDR-HF only) and the anti-aliasing filter of the receiver chain.

If an amplified antenna is used, please make sure not to exceed the receiver clipping level indicated in the datasheet (see www.enablia.com/Download/TitanSDR_Datasheet.pdf).

Cooling fan

To reduce the possibilities of overheating, use the receiver only on a hard, flat surface. Do not allow any object to block the airflow through the cooling fan opening on the bottom panel.

Firewall

TitanSDR application consists of four different running processes, communicating with each other over the loopback network interface:

- TitanSDR_MMI.exe
- TitanSDR_Server.exe
- TitanSDR_Client.exe
- TitanSDR_NBProc.exe

User has to configure software firewalls (if present) to allow TCP-UDP communications among the TitanSDR processes through the IP address 127.0.0.1.

If a “Remember my answer” option is present in the firewall dialog, please select it in order to skip future requests of the same type.

USB Interface

Connect the TitanSDR receiver to a 480 Mbit/sec Hi-Speed USB 2.0 port of the host PC using the provided USB cable or, as an alternative, a shielded USB cable (maximum length of 1 meter) with the Hi-Speed USB certification label (Figure 5).



Figure 5

In order to get the best performance from the USB link, don't connect USB devices to the PC other than TitanSDR receiver (except for mouse and keyboard).

In order to maximize USB performances, TitanSDR application automatically set the "High performance" power plan in Windows Power Options.

Wi-fi or Bluetooth connections can limit throughput over the USB interface, especially in Notebooks: disable wireless and Bluetooth cards in Windows "Device Manager".

Notebook embedded webcams are often connected to the USB controller, demanding much of USB bandwidth and, for this reason, potentially affecting the TitanSDR performance. Therefore, if a webcam is present, please switch it off when the receiver is running.

In desktop computers, use the rear USB ports: the front ports usually have poor performances.

Keep all the system devices drivers updated and always check drivers' compatibility with the installed Operating System.

5. License

License File

A software license file ("license.bin") is associated with the receiver and is sent by E-mail after package delivery or included in the folder "License" of the provided USB pen drive.

The license file is required to have TitanSDR application working with the receiver.

Copy license.bin file to the TitanSDR installation folder C:\ProgramFiles(x86)\TitanSDR\License. Note that the default installation folder varies depending on the version of TitanSDR (TitanSDR_HF, TitanSDR_VLF_LF or TitanSDR_AB). If the message “License file not found” pops up (Figure 6) after clicking the UsbConnection button (the rightmost button of the Panoramic Scope toolbar), please verify that license.bin file is in the above indicated folder.

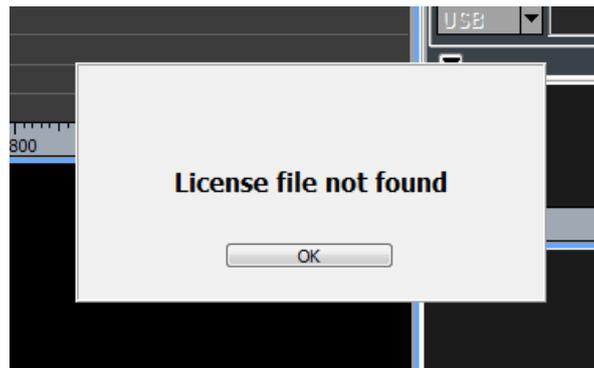


Figure 6

If the receiver is switched-on and connected to the PC and a valid license file is in the right folder, both “Receiver Mode” and “Player Mode” are allowed otherwise only the “Player Mode” is allowed.



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