



FDU-XT USER GUIDE

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1. Introduction

The FDU-XT (Fixed Docking Unit) is a home/office docking adapter that allows you to use Thuraya satellite services in indoor environments. It provides additional flexibility and convenience when using Thuraya XT-series handsets.

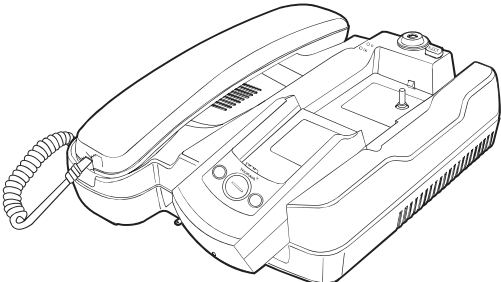
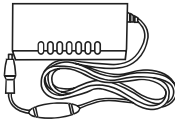
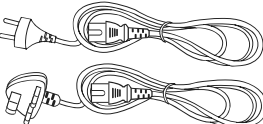
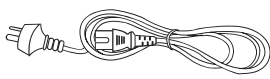
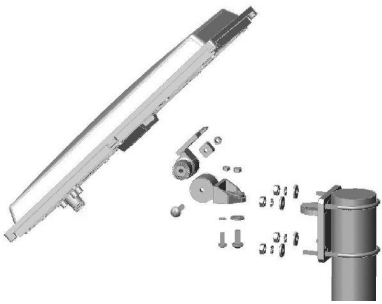
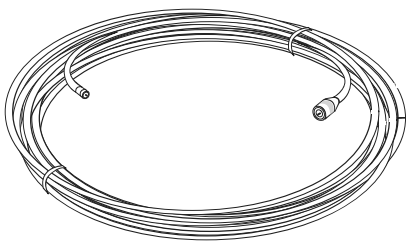
In addition, FDU-XT and its accessories are designed to meet Thuraya's specifications and quality standards.

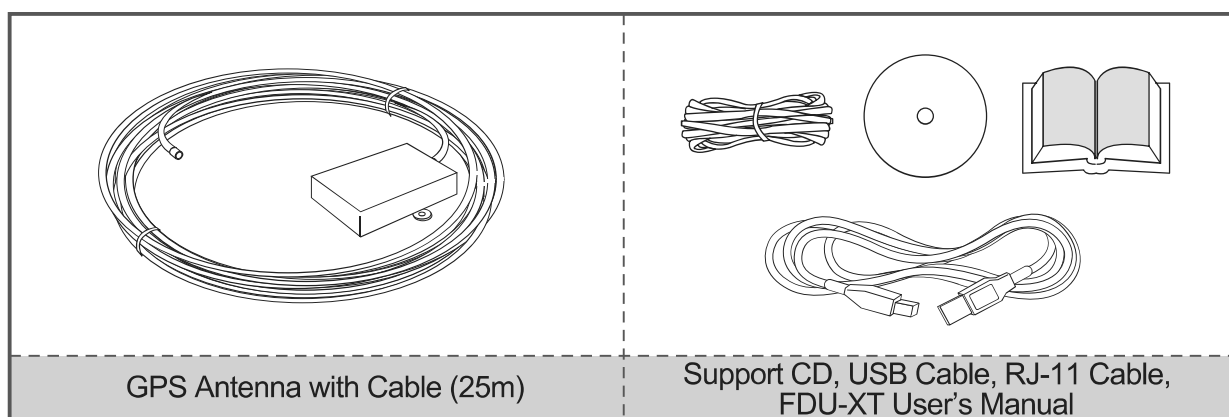
This indoor enabler enhances the capabilities of your Thuraya handset to meet your communication requirements, both in the home and in the office.

When a Thuraya handset is used with FDU-XT, the handset becomes an indoor communication center providing voice and data communication.

2. Package Contents

The FDU-XT package consists of the following items:

	   AUS (Optional)
FDU-XT with an Auxiliary Handset	AC/DC Power Adapter
	
Satellite Antenna and Mounting Adapter	Satellite Antenna Cable (25m)



3. Installation Instructions

After unpacking, please make sure that your FDU-XT and all its accessories are fully ready for installation. Please read the instructions carefully. If you encounter any difficulty in installation, contact your Service Provider for assistance.

● 3.1. Antenna Installation

The FDU-XT antenna set consists of the following components:

1. Satellite antenna with mounting adapter.
2. Satellite antenna cable to connect the satellite antenna to the FDU-XT (25m).
3. GPS antenna with attached coaxial cable to connect to the FDU-XT (25m).

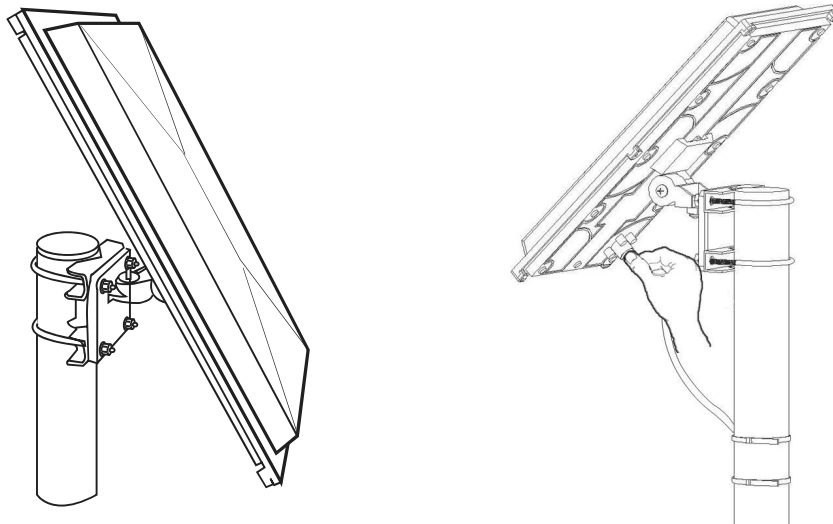
● 3.2. Installing the Satellite Antenna

The satellite antenna is a rectangular patch antenna and is supplied with mounting brackets.

3.2.1. How to install the Satellite Antenna

1. Mount the antenna onto any suitable fixture (mounting pole or wall) using the provided mounting brackets and bolts. The antenna should face the Thuraya satellite (see 3.2.2 for antenna orientation).

2. When installing the antenna, make sure the connectors are accessible when mounted.
3. Connect the coaxial cable to the antenna connector located at the base of the satellite antenna and tighten it properly by turning it clockwise. Leave enough length for a small loop and secure the rest of the cable using the cable ties.
4. Connect the other end of the satellite antenna cable to the reverse side of the FDU-XT marked “SAT”.



3.2.2. How to align the Satellite Antenna

Satellite based communication requires a direct line of sight to the satellite to achieve optimal signal strength. Therefore, the antenna must first be mounted in a location facing the satellite where it can then be finely adjusted for maximum reception.

The locations of the Thuraya satellites are on a geostationary orbit (at the equator) at a more or less constant position:

Satellite based communication requires a direct line of sight to the satellite to achieve optimal signal strength. Therefore, the antenna must first be mounted in a location facing the satellite where it can then be finely adjusted for maximum reception.

The locations of the Thuraya satellites are on a geostationary orbit (at the equator) at a more or less constant position:

- Thuraya-2 satellite at 44 degrees east of the zero meridian (approximately over Somalia)
- Thuraya-3 satellite at 98.5 degrees east of the zero meridian (approximately over Sumatra).

Antenna orientation:

- Align your antenna towards the Thuraya-2 satellite if your location is within the Thuraya-2 coverage area (Europe, Africa, Middle East).
- Align your antenna towards the Thuraya-3 satellite if your location is within the Thuraya-3 coverage area (Asia, Australia).
- In the overlapping areas, you can approach either of the two satellites and choose the satellite with the stronger signal.

If you require an accurate antenna alignment, you can retrieve precise directions from your current location to the satellite (azimuth and elevation angle) by either of the following methods:

1. Acquire your current GPS position data with your Thuraya satellite phone (function 'Current position'), press Option and send this data by SMS to the short code 1300. You will then receive the directional data from your location to the respective Thuraya satellite.
2. There are several independent websites where you can retrieve directional data to a specific satellite by entering your current location (www.dishpointer.com, www.satsig.net or others).

● 3.3. Installing the GPS Antenna

The GPS antenna comes with an attached coaxial cable to connect to the FDU-XT unit.

1. Find an appropriate location to mount the antenna.
Make sure the antenna has a clear view of the sky.
2. Mark locations of the “screw holders” on the surface/rooftop for fixing the antenna.
3. Drill holes of adequate depth on the surface.
4. Keep the antenna in place so that the drilled holes and the screw holders line up.
5. Fix the antenna securely using the screws provided.
6. Connect the free end of the attached cable to the GPS antenna connector marked “GPS” on the reverse side of the FDU-XT.

Note

Maintain a distance of 0.5 to 1 meter between the GPS and SAT antenna.

● 3.4. External Accessories

In order to use the FDU-XT, a Thuraya XT-series satellite phone with an active SIM-card is required. In addition the following external devices can be used with the FDU-XT:

1. Analog extension phone
2. PC or laptop for data transfer

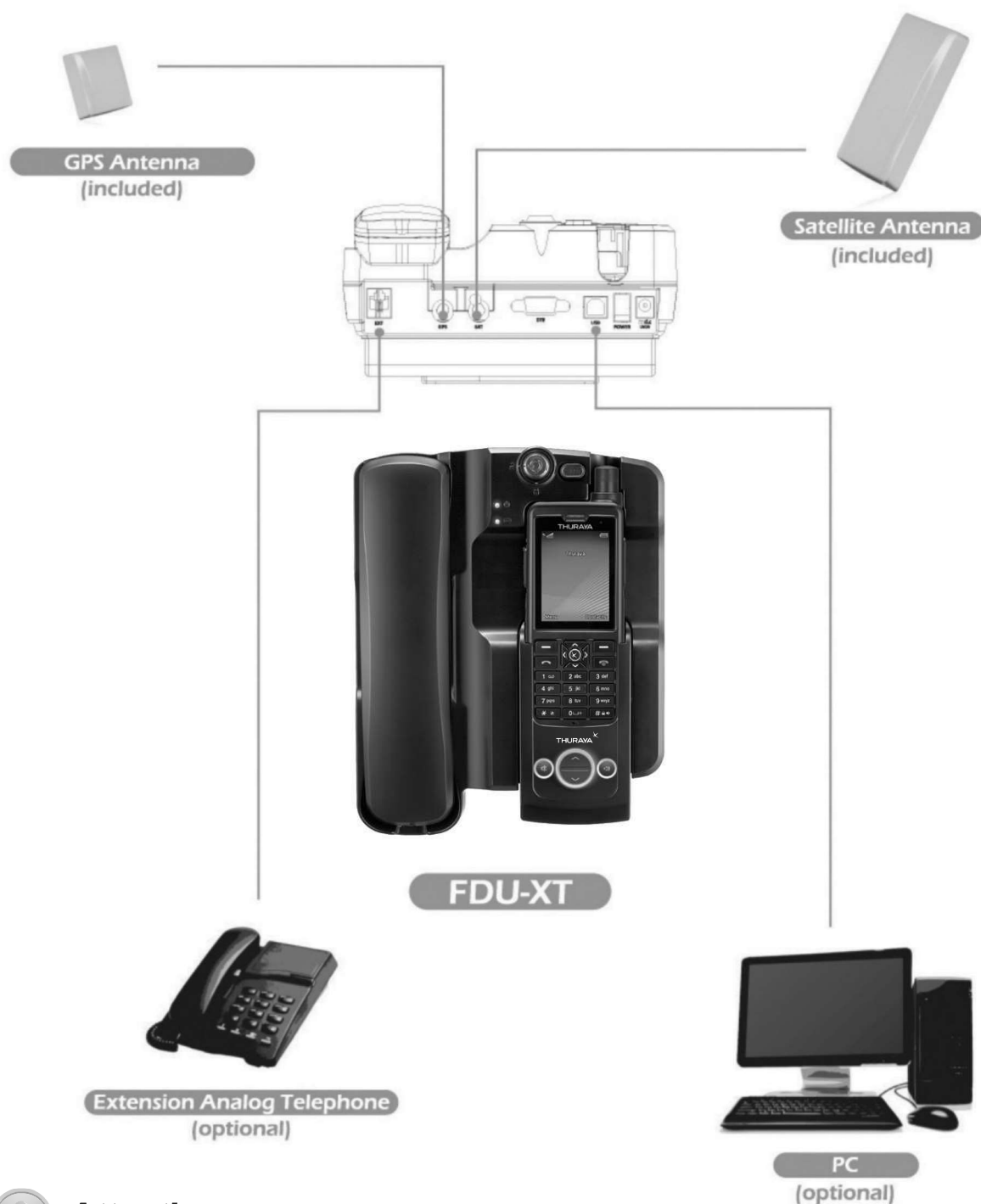
Note

The RJ-11 cable should be 2-wire inner at both ends.

4. Getting Started

The FDU-XT is intended to be used as a desktop or wall-mounted phone while the Thuraya handset is docked. Slots are provided at the base of the unit to allow The FDU-XT to be hooked securely to a wall. Interfaces for connecting external equipments such as extension analog telephone and PCs are provided at the back side of the unit.

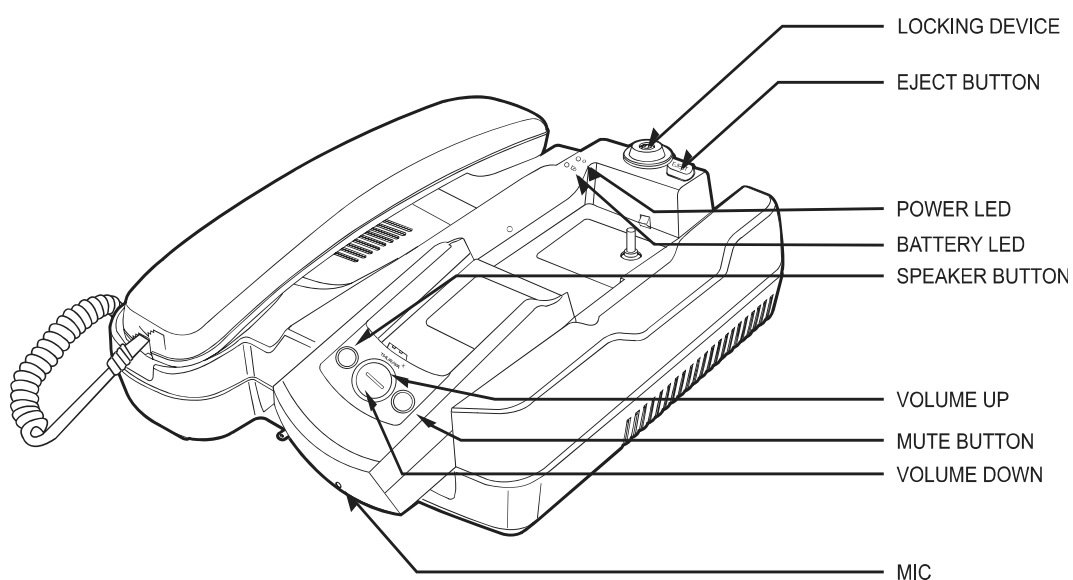
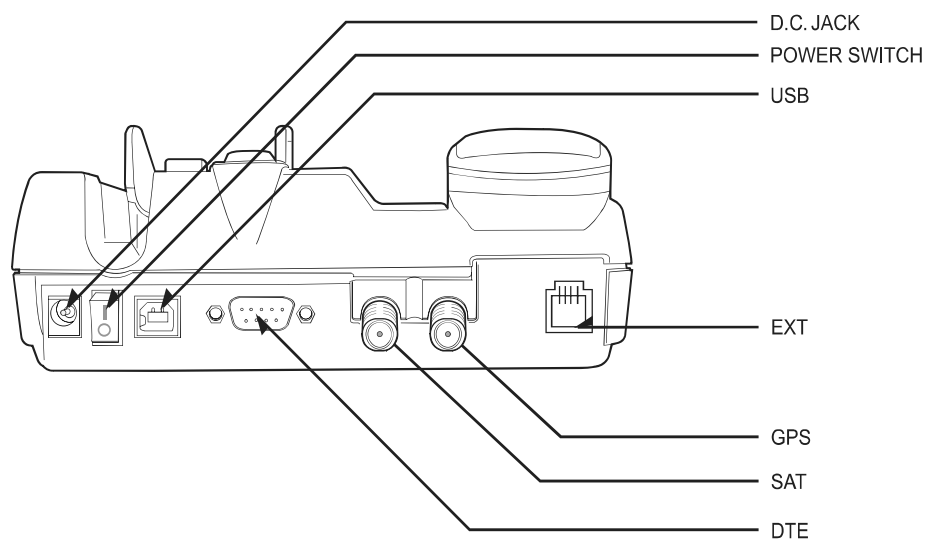
● 4.1. External Connections



Attention

1. Do not connect FDU-XT with other products such as PSTN or a general telephone line.

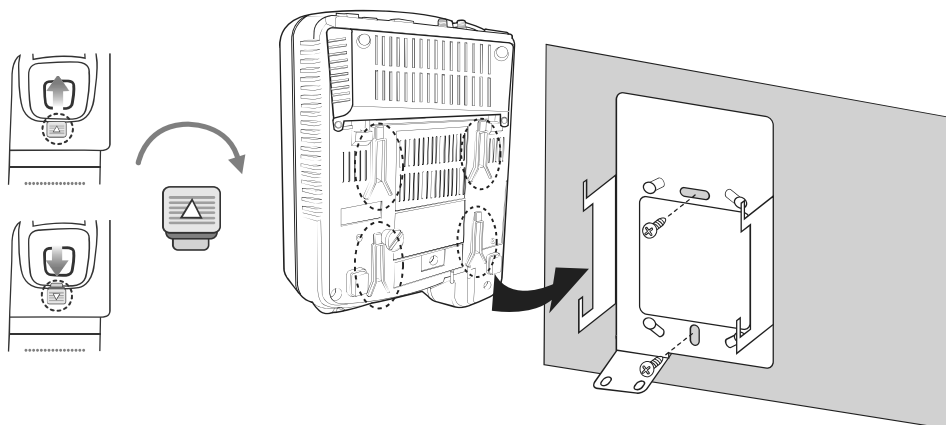
● 4.2. Connection Interface



4.3. Using FDU-XT as a wall mounted unit

The FDU-XT can be fixed on the wall by using the included brackets. Slots for brackets are provided on the back of the FDU-XT.

1. Find an appropriate location on the wall to mount the FDU-XT.
2. Place the bracket on the fixing location and mark the location of the screw holes.
3. Place a suitable-length screw on the wall for mounting FDU-XT.
4. Change the direction of Handset holder to a wall-mounted unit.
5. Hook the FDU-XT to the bracket on the wall.



Note

This product contains an air ventilation fan. To ensure the fan's normal operation, do not install the unit in a dusty area.

4.4. Start using the FDU-XT

Plug in the attached power supply to an external power source and connect the power cable to the DC IN connector on the reverse side of the FDU-XT. Afterwards you are ready to switch on the FDU-XT on the reverse side of the unit. The blue power LED will be activated to indicate the power status of the FDU-XT.

4.5. Connecting an extension phone to the FDU-XT

An alogue extension phone can be connected to the FDU-XT at the RJ-11 interface using the included RJ-11 cable.

4.5. Connecting an extension phone to the FDU-XT

An Analog extension phone can be connected to the FDU-XT at the RJ-11 interface using the included RJ-11 cable.

1. Plug one end of the RJ-11 cable to the RJ-11 interface marked “EXT” on the FDU-XT.
2. Connect the other end of the RJ-11 cable to the RJ-11 interface of the phone.

4.6. Connecting a PC or Laptop to the FDU-XT

You can connect your FDU-XT to a PC or Laptop through the USB or DTE interface on the reverse side of the FDU-XT.

1. Plug in one end of the USB cable (or Serial cable) to the USB port (or COM port) of your PC.
2. Connect the other end of the USB cable (or Serial cable) to the USB interface (or DTE interface) of the FDU-XT.

Note

To use the USB interface, please install the USB drivers for the FDU-XT first on your PC. The drivers can be found on the Support CD provided with the product.

Contact your Service Provider to register data services on your SIM card.

4.7. Docking a Thuraya satellite phone

1. Before inserting the phone into the FDU-XT cradle please remove the rubber plugs of the antenna connector on the reverse side of the phone. After that fold back the bottom cover of the phone and attach it to the two small plastic pins.
2. Place the Thuraya satellite phone into the cradle with the display facing up while attaching it to the connectors.
3. If the handset has been docked successfully, the display of the phone will show "Fixed Adapter".
4. Ensure you have full signal strength on the display (otherwise try to adjust the direction of the antennas).

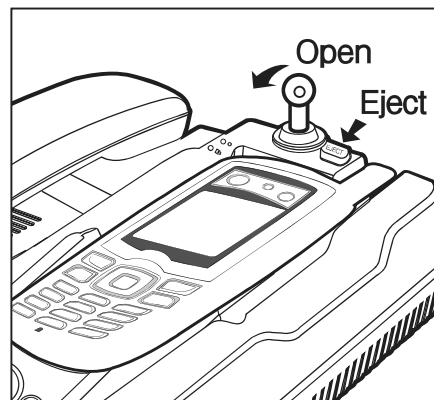
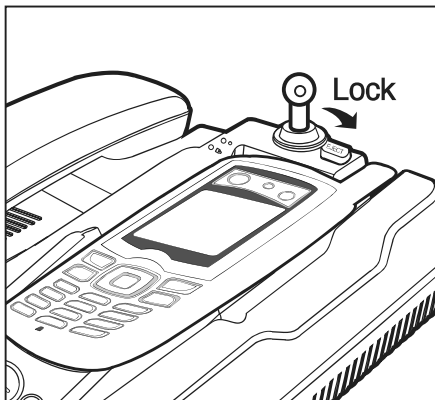
Note

Ensure that the dust caps on the reverse side and on the bottom side of the Thuraya handset are removed before docking.

4.8. Undocking the handset from the FDU-XT

Your FDU-XT has a locking function to prevent unwanted removing of the handset from the FDU-XT. The handset can only be removed if the lock is opened. To remove the phone after unlocking:

1. Allow the handset to complete all ongoing functions.
2. Press the Eject button to release the handset



5. Receiving / Making Voice Calls

Before you can make and receive voice calls, please make sure the following steps have been checked:

1. The FDU-XT is switched on
2. The Thuraya handset is switched on
3. The SIM card is valid and working.
4. The connections are properly set-up as described in the previous steps.
5. The Thuraya handset is properly docked in the FDU-XT as described in the previous steps.
6. Adequate satellite and GPS signal strength is available (see display of the handset).

● 5.1. Receiving Voice Calls

Incoming calls are indicated by:

1. Ringing tone from the speakerphone (and optionally from the extension phone if attached)
2. Flashing of the speakerphone LED.

You can accept incoming calls through the speakerphone, auxiliary handset, or extension phone.

Note

The speakerphone LED will remain ON if the call was not answered.

Accepting Calls from the Auxiliary Handset

⇒ Pick up the Auxiliary handset.

Accepting Calls from the Speakerphone


⇒ Press the Speakerphone button.

Accepting Calls from Extension Phone

⇒ Pick up the handset of the Extension phone.

● 5.2. Making Calls

Calling from the Speakerphone

1. Dial the destination number using the keypad of the Thuraya handset.
2. Press the Call button () on the Thuraya handset.

Calling from the Auxiliary Handset

Method 1

1. Pick up the auxiliary handset.
2. Wait for the dial tone.
3. Dial the destination number using the Thuraya handset keypad.
4. Press call button on Thuraya handset.

Method 2

1. Dial the destination number using Thuraya handset keypad while the auxiliary handset is on the cradle.
2. Pick up the auxiliary handset.

Calling from the Extension Phone

1. Pick up the handset of the Extension phone.
2. Wait for the dial tone.
3. Dial the destination number on the Extension phone keypad.
4. Press (*or #) on the Extension phone keypad after entering the numbers.

● 5.3. Ending Calls

Ending a Speakerphone Call

⇒ Press the Speakerphone button.

Ending calls with the auxiliary handset

⇒ Hang up the auxiliary handset

Ending calls with an extension phone

⇒ Hang up the extension phone

● 5.4. Transferring Calls

Speakerphone to Auxiliary Handset

1. Pick up the Auxiliary handset during the call. The call will be routed to the auxiliary handset.

Auxiliary Handset to Speakerphone

1. Press the speakerphone button on the FDU-XT during a call.
2. Ensure the speakerphone LED is blinking, afterwards hang up the auxiliary handset.

Speakerphone to Extension Phone

1. Pick up the Extension phone handset.

Extension Phone to Speakerphone

1. Press the speakerphone button on the FDU-XT during a call.
2. Ensure the speakerphone LED is blinking, afterwards hang up the extension phone.

● 5.5. Volume Control

You can adjust the volume of the speakerphone, auxiliary handset and ringtone using the Volume Up and Volume Down button on the FDU-XT.

Adjusting auxiliary handset volume

1. Pick up the auxiliary handset.
2. Press the Volume 'Up'/Volume 'Down' button repeatedly to increase/decrease the auxiliary handset volume as required.

Adjusting speakerphone volume

1. Switch 'ON' the speakerphone.
2. Press the Volume 'Up'/Volume 'Down' button repeatedly to increase/decrease the speakerphone volume as required.

Adjusting ringtone volume

1. Select the ringtone of your Thuraya handset from the handset menu.
2. Switch the speakerphone on.
3. Press the 'Volume Up'/'Volume Down' buttons repeatedly to increase/decrease the ringtone volume.

● 5.6. Muting the microphone in speakerphone mode

You can mute the microphone while in speakerphone mode by pressing the mute button. You will then be able to hear the caller at the other end but the other party will not be able to hear you.

Note

If you pick up the auxiliary handset now, the call will be automatically unmuted and routed to the auxiliary handset.

To Un-mute the call

⇒ Press the Mute button again.

6. Receiving/Sending Data

You can use your FDU-XT to receive and make data calls through a PC connected at the USB or DTE interface. To receive/make data calls by a PC, appropriate data communication software needs to be installed on the PC.

Note

The baud rate of the PC data communication software should be set at 115200bps.

6.1. Sending data from a PC/Laptop

1. Dock your Thuraya handset into the FDU-XT.
2. Connect the PC to the USB or DTE serial interface of the FDU-XT.
3. Switch on the FDU-XT.
4. Start the data communication software of your PC.
5. Enter the destination number.
6. Select the data file to be sent.
8. Use the respective start function of the data communication software to start transmitting the file.

6.2. Receiving data

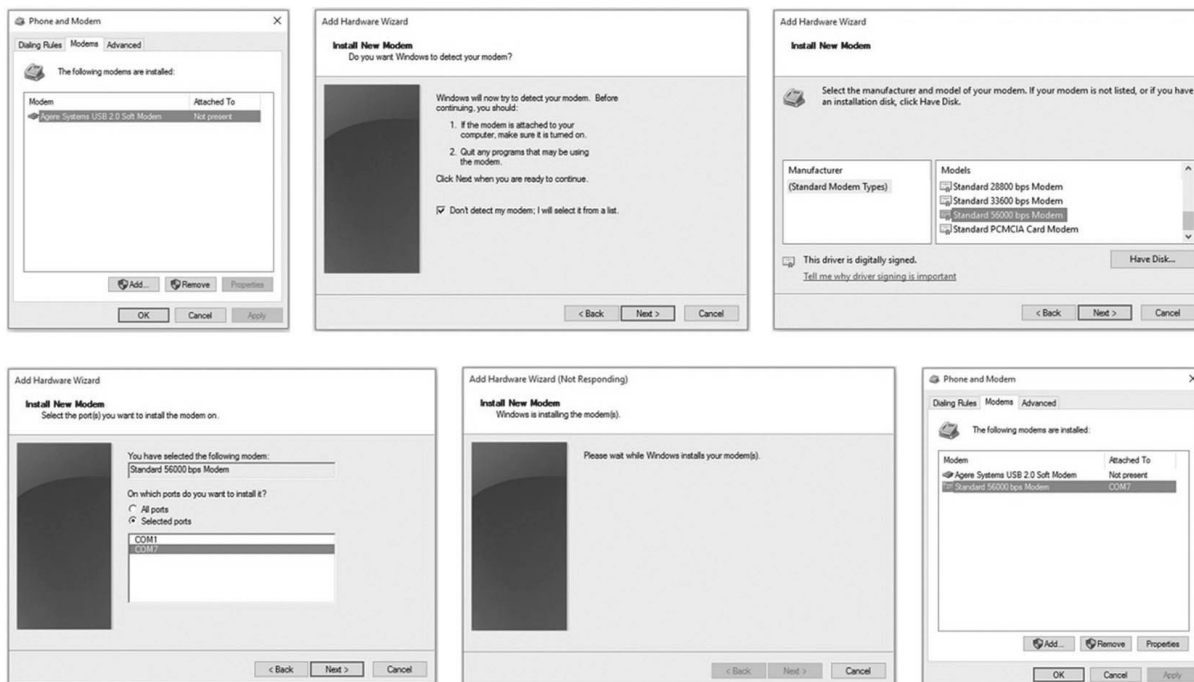
1. Dock your Thuraya handset into the FDU-XT.
2. Connect the PC to the USB or DTE serial interface of the FDU-XT.
3. Switch on the FDU-XT.
4. Start the data communication software on the PC/Laptop.
5. You will hear a special signal on the docked Thuraya handset when a data call is arriving.

7. GmPRS Connection

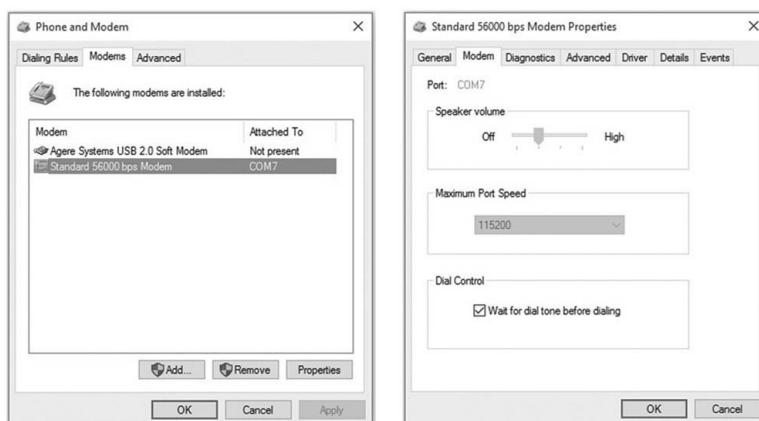
With your FDU-XT you can access Thuraya's GmPRS network. Use the USB or serial DTE port to connect the FDU-XT to your PC or laptop.

Setting a phone connection modem to access Thuraya's GmPRS network

1. Select "Control Panel→Phone and Modem →Modems" and then set a port by adding the "Standard 56000bps Modem" according to the following procedures.

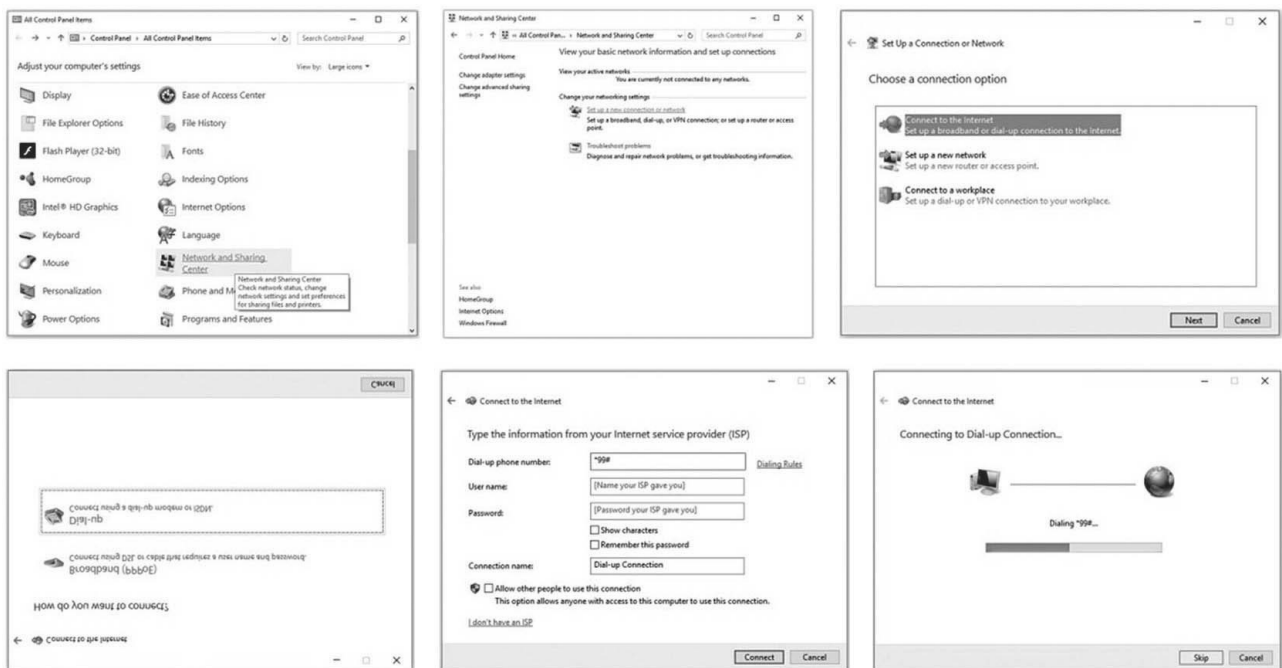


2. Right-click the mouse on the "Standard 56000bps Modem" which is newly created in the Modems window. Right-click the mouse, select "Properties" and make sure that "Maximum Port Speed" is set to "115200".

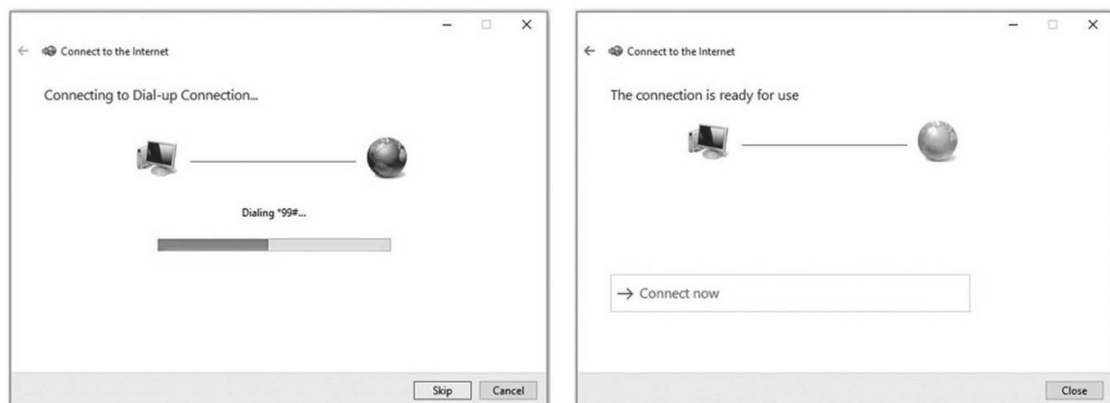


Control panel → network connections → create a new connection

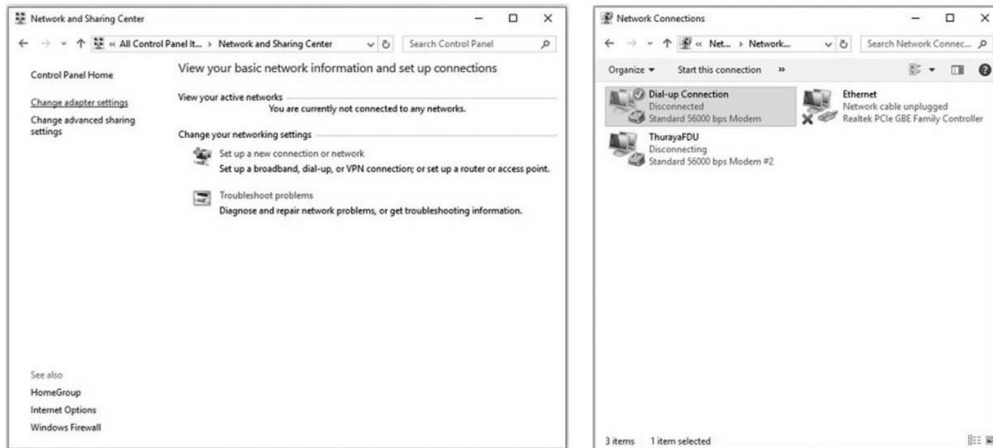
3. Select “Control Panel → Network and Sharing Center → Set up a new connection or network” and create a connection. (Make sure that “Phone Number to Dial” is set to “*99#”.)



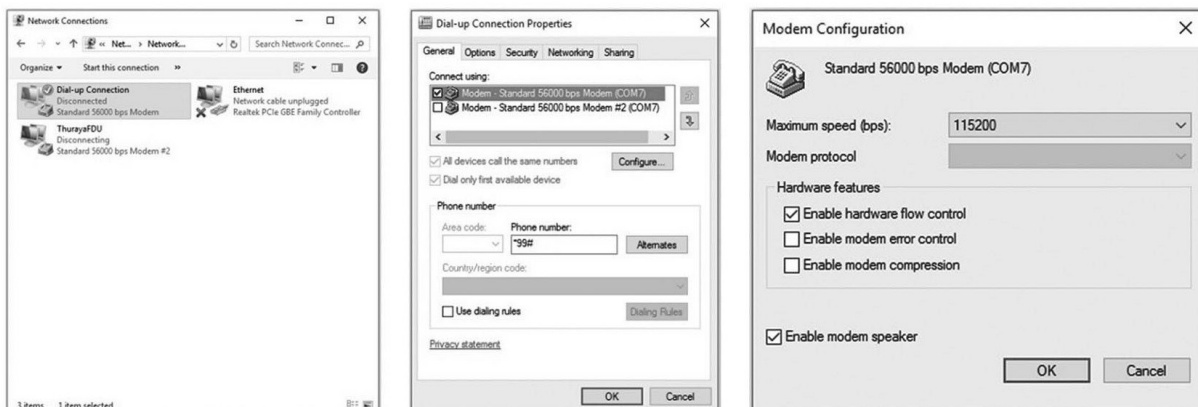
4. Click “Connect” to establish connection. While it is connecting, click “Skip” to end the connection.



- Click “Change adapter settings” in the Network and Sharing Center to make sure that the Dial-up Connection is created.

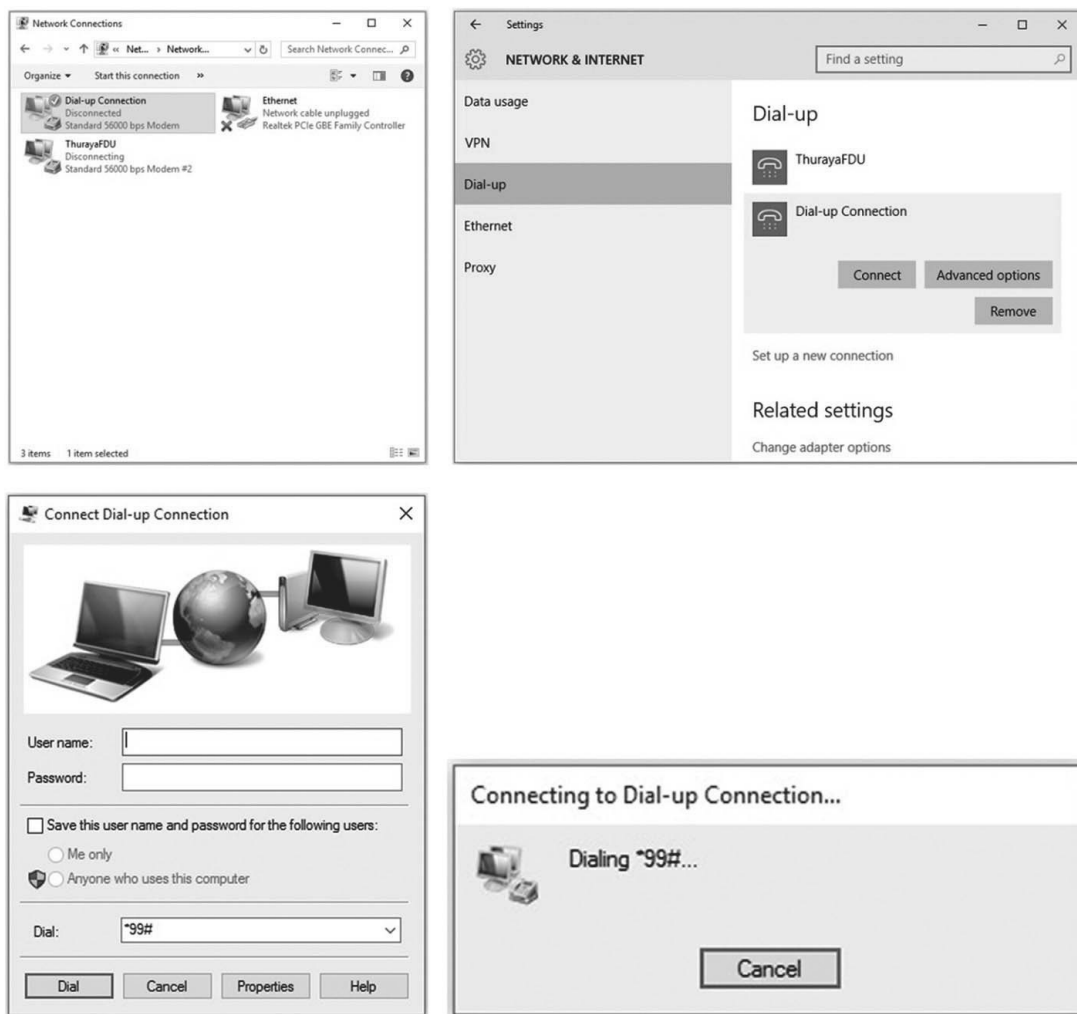


- Right-click on the Dial-up Connection and check the maximum speed in General.
Go to “Properties → General → Configure” and make sure that “Maximum speed” is set to 115200.



Procedure to access Thuraya's GmPRS network

1. Execute the Dial-up Connection.
(double-click or right-click → Connect / Disconnect.).
"Dial-up → Dial-up Connection → Connect"
2. See if the dial number is set to "*99#" and then click "Dial".



3. Afterwards the icon "Phone Connection Network" will be shown on the Windows task bar and on the Thuraya handset you will see the "G" symbol.

Procedure to disconnect from Thuraya's GmPRS network

1. Click on the icon "Phone Connection Network" on the Windows task bar and then select "End".

8. Extension phone locking

If you use an external extension phone in combination with the FDU-XT, you can protect the usage of the extension phone with a PIN code. After activating the PIN locking function, a user will have to enter the correct PIN in order to make a phone call from the extension phone.

The PIN code of the FDU-XT is per default set to "0000".

If the extension phone locking is enabled use the following procedure to make a call: On the extension phone enter the PIN code → * → telephone number → * or # (e.g.: 0000*123456789*)

● 8.1. Enable extension phone locking:

1. Connect the extension phone to the RJ-11 interface marked "EXT" on the reverse side of the FDU-XT.
2. Press * * → PIN → * (e.g.: * * 0000 *)
3. Hang up the phone after hearing the beep which indicates the activation of the PIN code.

● 8.2. Disable extension phone locking:

1. Connect the extension phone to the RJ-11 interface marked "EXT" on the reverse side of the FDU-XT.
2. Press * # → PIN → * (e.g.: * # 0000 *)
3. Hang up the phone after hearing the beep which indicates the deactivation of the PIN code.

● 8.3. How to change the PIN code

1. Connect the extension phone to the RJ-11 interface marked "EXT" on the reverse side of the FDU-XT.
2. Press # * → Old PIN (4 digits) → * → New PIN (4 digits) → * (e.g.: # * 0000 * 1234 *)
3. Hang up the phone after hearing the beep which indicates the confirmation of the PIN change.

Please make sure you do not forget the new PIN code, otherwise you need to bring the FDU-XT to the Service Center in order to reset the unit.

9. Troubleshooting

Your FDU-XT does not contain consumer serviceable components. You are advised not to carry out any kind of troubleshooting. In case you face any problems, contact the nearest service center. Only authorized service personnel can repair the equipment.

Use only the antennas and cables that have been provided with the unit or that have been specifically designed for your FDU-XT.

Unauthorized antennas, cables and cable length modification or attachments could damage the FDU-XT and may violate the relevant regulations, causing loss of performance and radio frequency (RF) energy above the recommended limits. If your FDU-XT's antenna gets damaged, please take it to an authorized Service Provider.

- Do not place the FDU-XT in a wet area.
- Do not expose the FDU-XT to temperatures higher than +55°C Celsius or less than 0°C Celsius.
- Do not expose the FDU-XT to moisture, dust etc.
- Do not expose the FDU-XT to direct sunlight.
- Do not disassemble the FDU-XT; this will void your warranty.
- Do not store it in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not drop, apply pressure or shake it. Rough handling can break internal circuit boards.
- Do not use chemicals, cleaning solvents, or strong detergents to clean it. Wipe it smoothly with a soft cloth.
- Do not paint it. Paint can clog the device's moving parts and prevent proper operation.













If the FDU-XT, the phone, battery, charger or any accessory does not function properly, take it to your nearest authorized service center. The personnel there will assist you, and if necessary, arrange for service.

● Common Problems

- Thuraya handset is not properly docked.
- Thuraya handset is switched OFF.
- There is not enough satellite signal strength (minimum of two bars should be shown on the handset display, otherwise adjust the antenna).
- FDU-XT is not switched ON.
- Connections are not proper and firm.

Problem	Solution
Unable to make/receive calls	Check if PIN locking is enabled and if PIN code is correct.
	Check if the RJ-11 cable is properly connected (when using an extension phone).
	If the extension phone is not working, try to use the auxiliary handset. If you are able to make/receive calls with the auxiliary handset, please check the functioning of the extension phone.
The auxiliary handset is not working	Check whether the auxiliary handset is connected properly.
Speakerphone not working	Make sure that the speakerphone is "ON".
	Select appropriate volume level.

10. LED Indications

LED Status	Indication
The blue Power LED ( ) is on.	FDU-XT is switched on
The blue battery LED ( ) is on.	Handset battery is fully charged
The blue battery LED (     ) is blinking.	Handset battery is charging
The white speakerphone LED is flashing.	Incoming call
The white LED on the speaker button () is on.	Speakerphone is on
The white LED on the mute button () is on.	Microphone is off

11. Warranty

Limited Warranty FDU-XT

This Limited Warranty is provided to the original purchaser of FDU-XT. This Limited Warranty is non-transferable in nature.

Warranty Coverage and Service

Thuraya warrants all new FDU-XT handsets to be free from defects in material and workmanship under normal use and wear for a period of one year (1 year) from the date of purchase.

If under normal use the product becomes defective in materials or workmanship and is returned to a Thuraya Authorized Service Center during the warranty period, the product will be repaired or replaced at no charge to the purchaser. The purchaser shall be required to provide reasonable proof of the date of purchase of the product.

Repair or replacement of the Product is subject to Thuraya System Design's sole and exclusive option. Reconditioned replacement components, parts, units, or materials may be used if the Product is repaired or replaced. Cost incurred in the removal, de-installation or reinstallation of the Product are not covered.

This Limited Warranty will be void in its entirety if the Product is serviced by anyone other than Thuraya or a Thuraya Authorized Service Center.

The User's sole and exclusive solution will be repair or replacement of the product. Thuraya neither assumes nor authorizes any Authorized Service Center or any other person or entity to assume any other obligation or liability beyond that which has been specified in this Limited Warranty.

Limitation of Liability

All liability and obligations of Thuraya under this Limited Warranty shall terminate on the completion of the warranty period of one year, calculated from the date of purchase of the product by the original purchaser. The purchaser shall fill in the warranty card attached in the User's manual and get it duly stamped and signed by the Dealer as proof of purchase.

This limited warranty sets forth the entire responsibility of Thuraya with respect to the product. There are no other liabilities of Thuraya arising from the sale of the Product whether based on warranty, contract, negligence or any other theories of liability.

This Warranty does not cover the following

Thuraya will not be responsible for products or accessories not manufactured or provided by Thuraya. Thuraya will not take responsibility for the failures caused by misuse, accident, alteration or neglect, removal or repair, neglect or failure to follow instructions as to installation and maintenance, fire, flood or other natural calamities. Thuraya will not guarantee the performance of the product when used in combination with other non authorized products or equipment.

12. Specifications

Dimensions	221 x 176mm
Interfaces	<ul style="list-style-type: none">• 2 x RJ-11:<ul style="list-style-type: none">- External telephone connection (voice call)- Auxiliary handset connection (voice call)• 1 x RS-232 serial connection• 1 x USB PC connection• 2 x SMA connectors:<ul style="list-style-type: none">- Satellite antenna connection- GPS antenna connection
Power	<ul style="list-style-type: none">• Universal AC/DC power supply: 110 - 240V• Input power DC 12V/24V/34V
Package Contents	<ul style="list-style-type: none">• FDU-XT main unit• Auxiliary handset• SAT antenna with 25m cable• GPS antenna with 25m cable• Universal power supply• Wall mounting bracket• USB cable• RJ-11 cable• Support CD• User manual

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