

Comrex Connect Modems for ACCESS

Product Manual



COMREX CONNECT MODEMS

Comrex Connect Modems are pro-grade and high gain LTE modems designed to work with ACCESS* audio codecs. Comrex Connect Modems are available in three varieties:

- Compatible with AT&T and Verizon networks in the US**
- Compatible with China, Japan, South Korea, Taiwan and Brazil
- Compatible with many other International LTE networks worldwide

*ACCESS 2USB, NX Portable, Rack, NX Rack, Multirack. Can be used with BRIC-Link II in Hotswap mode only.

** *Verizon network does not support 3G services*

US VERSION

The US version of the Comrex Connect Modem contains firmware that is certified for use on the Verizon and AT&T networks. It is not certified for use on Sprint or T-Mobile.

The firmware for each network is different. Once a compatible SIM card is applied, the appropriate firmware is loaded by the modem. If the SIM card is changed from one network to the other, the process will repeat.

During this firmware loading process, both LEDs on the modem will be on steady. The process takes from 5-10 minutes to complete. Once complete, no other changes are necessary, and the modem will register with the network.

Note: The US Comrex Connect Modem requires that ACCESS devices are running Firmware version 4.5-p6 or higher.

VERIZON SIM

The Comrex Connect US Modem, with a Verizon SIM inserted, is able to work on the network's main LTE channel at **700 MHz**, known as **Band 13**. In addition, it can operate on the **AWS1700 Band 4**, marketed as XLTE by Verizon.

AT&T SIM

The Comrex Connect US Modem, with an AT&T SIM inserted, is able to work on the following LTE bands:

- 1900 MHz (Band 2)
- AWS1700 (Band 4)
- 850 MHz (Band 5)
- 700 MHz(a) (BAND 12)
- 700 MHz FirstNet (Band 14)

In addition, in the absence of LTE service on the AT&T Network, this modem offers 3G service in **Band 5** and **Band 2**.

CJ VERSION

The Comrex Connect CJ Modem is able to work on the following 4G bands:

- 1900 MHz (BAND 1)
- 1800 MHz (BAND 3)
- 850 MHz (BAND 5)
- 2600 MHz (BAND 7)
- 900 MHz (BAND 8)
- 800 MHz (BAND 18)
- 800 MHz (BAND 19)
- 1500 MHz (BAND 21)
- 700 MHz (BAND 28)
- 2600 MHz (TDD) (BAND 38)
- 1900 MHz (TDD) (BAND 39)
- 2300 MHz (TDD) (BAND 40)
- 2500 MHz (TDD) (BAND 41)

And covers the following 3G bands:

- 2100 MHz (BAND 1)
- 850 MHz (BAND 5)
- 800 MHz (BAND 6)
- 900 MHz (BAND 8)
- 1700 MHz (BAND 9)
- 800 MHz (BAND 19)

INTERNATIONAL VERSION

The Comrex Connect International Modem is able to work on the following LTE bands:

- **2100 MHz (BAND 1)**
- **1900 MHz (BAND 2)**
- **1800 MHz (BAND 3)**
- **2100/1700 MHz (BAND 4)**
- **850 MHz (BAND 5)**
- **2600 MHz (BAND 7)**
- **900 MHz (BAND 8)**
- **700 MHz(a) (BAND 12)**
- **700 MHz(c) (BAND 13)**
- **800 MHz (BAND 20)**
- **1900 MHz (BAND 25)**
- **850 MHz (BAND 26)**
- **700 MHz (BAND 29)**
- **2300 MHz (BAND 30)**
- **2500 MHz (TDD) (BAND 41)**

And covers the following 3G bands:

- **2100 MHz (BAND 1)**
- **1900 MHz (BAND 2)**
- **1800 MHz (BAND 3)**
- **2100/1700 MHz (BAND 4)**
- **850 MHz (BAND 5)**
- **900 MHz (BAND 8)**

INTERNATIONAL VERSION COUNTRIES

The International Comrex Connect Modem is designed to work in many countries. It is unlocked and carries PTCRB certification, so it should be allowed to register on most networks worldwide. While it covers most of the bands used by carriers in the U.S., it does not carry the carrier-specific certification required to be used on these networks.

LTE coverage by country/region:

In Europe and Africa, Bands 20, 7, and 3 are most common and are covered by the modem.

This modem also supports Band 8, used by a select number of carriers in Europe.

In most of Asia, Bands 7, 3, and 1 are common, exclusive of China, Japan, and India.

In India, some carriers use band 41 (TDD) and others use Band 3.

In Oceania and the Middle East, Bands 7 and 3 are common.

In Canada, Latin America and the Caribbean, Bands 7 and 4 are common.

ARRANGING LTE SERVICE

Since the Comrex Connect Modem is certified to work on most networks, you can deliver the IMEI number of the modem (from the label) to the carrier. The carrier will provide a SIM card for your modem. Request a “full size” SIM card if possible.

It’s also often possible to move a SIM card from an existing USB modem or Hotspot (or even a tablet) and use that data service directly on the Comrex Connect Modem.

OPENING THE COMREX CONNECT MODEM CHASSIS

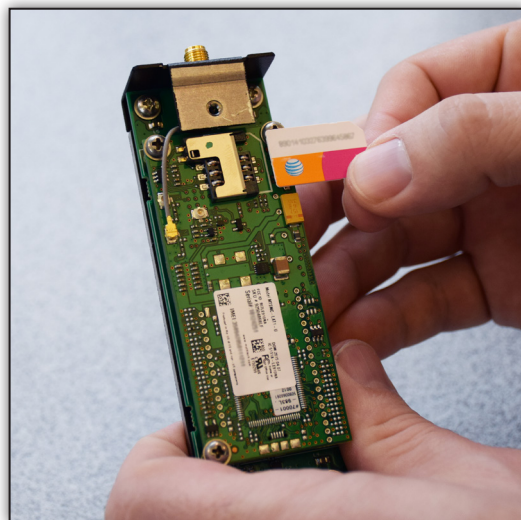
The Comrex Connect Modem has a captive thumbscrew that can be turned to open the chassis. Once the thumbscrew is completely loose, pull down on the top cover (toward the USB jack) to remove it.



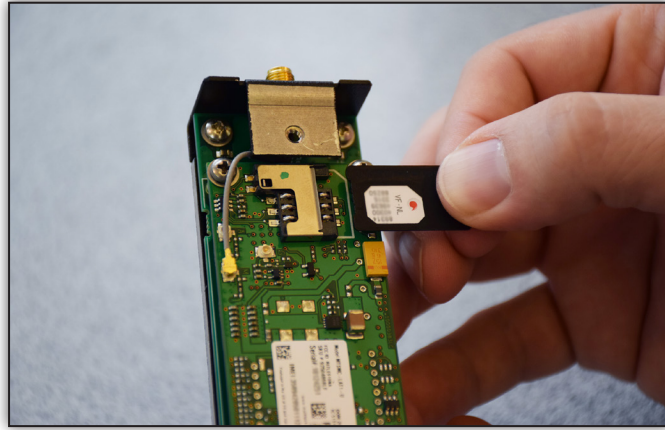
INSERTING THE SIM

SIM cards currently come in three sizes: Full, Micro, and Nano. Comrex Connect Modems use a full-size SIM card. Smaller sizes can be accommodated with the included SIM adapters.

For the US model, the AT&T and Verizon SIM cards are inserted as shown below:



If using an adapter, first insert the SIM into the adapter as completely as possible, then apply the entire assembly to the SIM socket.



For the CJ and International Comrex Connect modems, the process is the same, but the SIM slot is in a different location.



Once the SIM is installed correctly, reattach the modem's top cover and re-secure the thumbscrew.

COMREX CONNECT MODEM MOUNTING BRACKETS AND POUCHES

There are four mounting bracket options available for the Comrex Connect Modem. Two are designed for use with the ACCESS NX Portable chassis and two are designed for use with ACCESS 2USB Portable.

ACCESS NX PORTABLE MOUNTING BRACKET/POUCH OPTIONS AND ASSEMBLY

The mounting bracket with pouch options for ACCESS NX Portable are either a Single Bracket with one pouch to accommodate one modem or a Dual Bracket with two pouches to accommodate two modems. To begin, place a modem into the pouch by aligning the modem so that the SMA jack is lined up with the circular hole on the pouch and the micro-USB connector is aligned with the rectangular hole on the pouch.



Fold the side flaps over the top of the modem.



Fold the longer flap up and over the smaller flap attaching it to the velcro of the smaller flap. The pouch should be snug and securely closed. When using the Dual Pouch option, repeat this procedure for the second modem.



To attach either the Single Pouch or Dual Pouch mounting bracket to the NX Portable, remove the top two Philips screws on the top plate.



Place the pouch assembly so that the bracket mounting holes align with the top plate holes as shown below and on page 10. Re-apply the two Philips screws.



ANTENNA(S)

The external antenna(s) are required for proper modem operation. The antenna is designed to work over all the LTE and 3G bands supported by the modem. Attach the antenna to the SMA jack securely but gently for each modem as shown.



Connect the supplied USB cable by seating the micro-USB into the micro-USB connector on each modem as shown below.

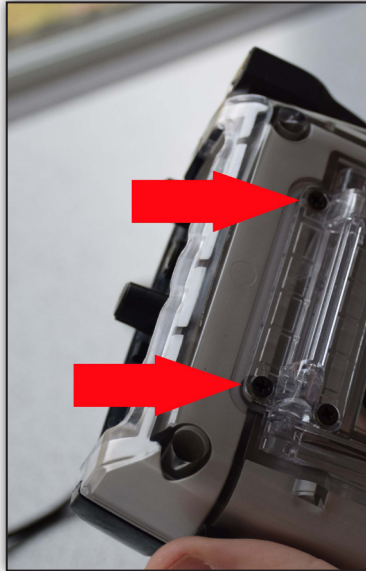


Run the USB cable from the micro-USB socket on each of the Comrex Connect Modems to the respective side USB connectors on the NX.



ACCESS 2USB MOUNTING BRACKET/POUCH OPTIONS AND ASSEMBLY

The mounting bracket with pouch options for ACCESS 2USB are a Standard Bracket with pouch to accommodate one modem or an EXT Bracket with pouch to add a second modem. Both are designed to attach to the back of the ACCESS 2USB. Both are required to use two modems. To attach the standard bracket, remove the top two Philips screws that secure the handstrap slot on the back of the ACCESS.



Place the bracket assembly so that the holes in the bracket align with the holes of the handstrap slot, and apply the provided mounting screws through both the bracket assembly and the handstrap slot.



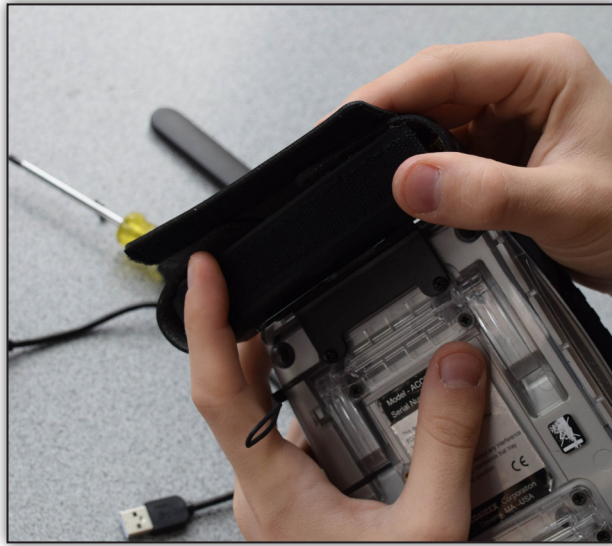
Align the modem in the pouch so that the SMA jack is lined up with the circular hole on the pouch and the micro-USB connector is aligned with the rectangular hole on the pouch.



Fold the side flaps over the top of the modem on both sides.



Lift the smaller flap on the back side of the ACCESS Portable so that the velcro is facing out along the back of the modem. Fold the longer flap with the Comrex logo over the modem and attach to the smaller velcro flap.



The pouch should be snug and securely closed.



Attach the antenna to the SMA jack securely but gently.



Connect the supplied USB cable by seating the micro-USB into the micro-USB connector on the modem.



Run the USB cable from the micro-USB socket on the Connect modem to the side USB connector on ACCESS.

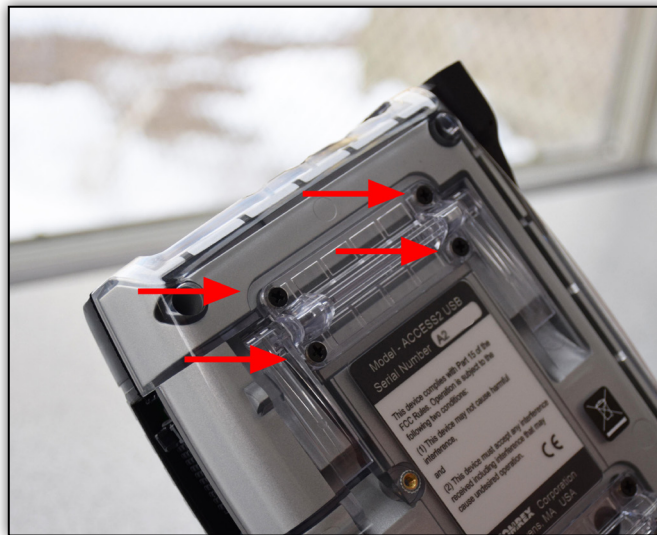


ACCESS CONNECT MODEM EXT BRACKET WITH POUCH

If you have purchased the EXT bracket with pouch to use with a second Connect modem, you will need to attach the EXT model first and then the standard bracket model. The image below shows two modems in pouches with antennas attached.



To start, remove the four Philips screws that secure the handstrap slot on the back of the ACCESS.



With the handstrap slot still in place, place the EXT bracket with pouch so the 4 holes on the bracket plate are aligned with the four screw holes of the handstrap slot.



Apply the two silver screws (provided) into the two bottom holes.



Align your standard Connect Modem bracket with pouch to the two top holes of the EXT bracket. Apply the two black screws with washers (provided).



INSERTING INTO POUCHES

To insert the bottom modem into the pouch, insert the modem with the SMA jack aligned with the circular hole and the micro-USB connector aligned with the rectangular hole. Fold the side flaps over the top of the modem.



Fold the smaller flap up. Fold the longer flap down and over the bottom flap's velcro.



Repeat the steps for the top modem. Note that the circular and rectangular holes in the pouch are opposite of those in the bottom pouch.



ANTENNAS AND USB CABLES

Attach the antennas to each SMA jack securely and gently.

Connect the supplied USB cable by seating the micro-USB into the micro-USB connector on the modem.
Connect the USB cable into the top and side USB ports on the ACCESS 2USB.



USING COMREX CONNECT

Once attached, the Connect modems will appear in the network list of your ACCESS like any other modem device, and will have all the same options.

When first installed, the modem(s) may appear as a “Network Device”. Within about 30 seconds their names should change to one of the following:

- US: LE910C4-NF
- CJ: MC7430
- International: MC7455

Please refer to the ACCESS user manual for more info on configuring APNs for modems.

INDICATORS

The Connect modem has two LED indicators. The red LED indicates power is active to the modem. The green LED has different behavior depending on the type of modem:

- **US** - Flashing green indicates the modem is registered with the network
- **International** - Solid green indicates the modem is registered with the network
- **CJ** - Solid green indicates the modem is registered with the network