

Asset Tracking Kit: Frequently Asked Questions

1. How do I turn on a device?

See the “Device” section in the User Guide (either printed or online)

2. How do I connect a gateway?

See the “Gateway” section in the User Guide (either printed or online)

3. What is GNSS and how is it related to GPS?

GNSS stands for Global Navigation Satellite System and is a generic term for satellite-based radio frequency positioning. Examples of GNSS constellations are GLONASS (operated by the Russian Federation), Beidou (operated by China), Galileo (operated by the European Union), and GPS (operated by the United States). GPS stands for the Global Positioning System and is often used interchangeably with GNSS. In many cases today, “GPS receivers” include the capabilities from multiple constellations and are technically “GNSS receivers”. The trackers in the Asset Tracking Kit have embedded GNSS receivers, but we refer to them as “GPS receivers” or simply “GPS”.

4. About how long from the time a device is activated will it take to see data on the dashboard?

If your gateway is connected and functioning, the first message should appear on the “Device Settings” tab within one minute. **Note:** If testing indoors, the device may not show on the “Device Tracking” tab until it is outdoors and it can get a GPS fix.

5. What happens when a device is active but a gateway is offline (or out of range)?

If the device has previously joined the network and reported back to the network, it will continue to send messages. However, without the gateway, the messages will not be received by the network. When the gateway is restored (or you return to gateway coverage), the network will start receiving messages again. **Note:** All of the messages that were sent but not processed by the network when the gateway was offline or out of range will not be recovered or received.

If the device has not yet been joined to the network (or it has been reset and needs to rejoin), then the device will try to rejoin about once every minute. This state will cause a decrease in the battery life of the device.

6. I see the device update on the “Device Settings” tab but not on the “Device Tracking” tab; why is this happening?

This occurs when a device sends a message with a bad or missing GPS fix. There are two potential reasons for not getting a fix: 1) the environment; 2) low battery. With respect to the environment, the GPS receiver will not get a fix in many indoor environments (such as office buildings and underground). It may even be difficult to get a fix in some outdoor locations (for example, under very dense foliage or below the top floor of a parking garage). In the event of a battery problem, the device may report good battery levels (based on voltage) but the actual power consumption for the GPS receiver itself may be too high for the remaining capacity of the battery. If the device has been on for several weeks, this could be why you are not getting GPS fixes, even when outdoors with “clear sky” conditions.

7. How do I replace a battery?

See the “Battery Replacement” section in the User Guide (either printed or online)

8. Can I mount the gateway outdoors for better coverage?

Yes. Please send your request to ATKSupport@semtech.com and we can walk you through the process.

9. Where can I find out more about LoRa® and LoRaWAN®?

The LoRa Developer Portal (<https://lora-developers.semtech.com/>) contains a wealth of information about LoRa and LoRaWAN.

10. Can I connect my gateway to a wired Ethernet connection (LAN)?

Yes. Please send your request to ATKSupport@semtech.com and we can walk you through the process.

11. How and where do I buy trackers or gateways for my application?

For purchasing information, refer to the [LoRa-based Products & Services Catalog](#).

12. How do I get more help or submit questions?

Please send your request to ATKSupport@semtech.com.