

Thuraya IP+

Frequently Asked Questions

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1. WHAT IS THE THURAYA IP+?

Thuraya IP+ is a portable, broadband data terminal that is useful for people who require reliable data connectivity in areas with inadequate terrestrial infrastructure.

2. WHAT NETWORK DOES THE THURAYA IP+ RUN ON?

The Thuraya IP+ works in satellite mode throughout the whole coverage area of the Thuraya satellites which cover two thirds of the globe; 140 countries in Asia, Africa, Australia, Europe and Middle East.

3. WHAT ARE THE TYPES OF SERVICES ON THE THURAYA IP+?

Two types of broadband data services are available, Standard IP and Streaming IP:

- Standard IP, also known as Background IP offers up to 444 Kbps data connectivity on a shared mode or best effort basis.
- (Asymmetrical) Streaming IP offers dedicated data connectivity ranging from 16 Kbps to 384 Kbps.

4. ARE WE REQUIRED TO USE AN EXTERNAL ANTENNA WITH THURAYA IP+ UNIT?

Thuraya IP+ can be used with and without an external antenna. The terminal has a built-in antenna that can support up to 444 Kbps on Standard IP and 384 Kbps on Streaming IP. However, if the terminal is used on a vehicle or a fixed location, Thuraya has a range of suitable antennas that are available for such applications.

5. WHAT ARE THE KEY END-USER ACTIVITIES THAT THURAYA IP+ SUPPORTS?

Thuraya IP+ supports the following end-user activities and applications:

- High quality video broadcasting
- Broadband internet access
- Email, web mail, web browsing
- Skype, Facebook, Twitter, WhatsApp
- Virtual Private Network (VPN)

- File transfer (FTP)
- Video conferencing
- Video streaming
- Intranet, E-commerce

6. WHO ARE THE TARGET SUBSCRIBERS FOR THURAYA IP+?

Thuraya IP+ is targeted at users in the broadcast media, defense, government, telemedicine and disaster response sectors. We are also targeting small and medium enterprises as well as individuals who need reliable broadband Internet access in locations that are beyond terrestrial network coverage.

7. WHAT TYPES OF QUALITY OF SERVICE (QOS) DOES THURAYA IP+ HAVE?

Thuraya IP+ offers two types of QoS:

Standard IP: This service offers shared channel resources among several users. This means that any spot beam, the number of users logged on and are actively using the service will be sharing the available channels. Throughput may vary depending on amount of data transmitted and received by various users sharing the channel.

Streaming IP: This service offers dedicated throughput on a channel for a user. Within Streaming IP, different types of QoS are available ranging from 16 Kbps to 384 Kbps for uplink & downlink. If a subscriber opts for 384 Kbps uplink and 64 Kbps downlink, the 384 Kbps uplink and 64 Kbps downlink bandwidth is dedicated to this subscriber. Throughput is constant during the session.

For example, if a media customer wanted to cover a live event, the best possible uplink bandwidth is 384 Kbps. However, on the downlink the customer does not require a huge bandwidth and hence might settle for 64 Kbps or even 32 Kbps. This results in significant cost savings for the customer.

8. DO THE ASTRUM VALUE ADDED SERVICES ALSO WORK ON THURAYA IP+ TERMINALS?

All existing Value Added Services over Thuraya IP service like TerraLink Data Manager, SkyFile, The Source etc. are working on the Thuraya IP+ terminal as well.

9. WHICH COMPANY MANUFACTURES THE THURAYA IP+ TERMINALS?

Thuraya IP+ is manufactured by Hughes Network Systems, Inc., USA

10. WHAT ARE THE FEATURES OF THE TERMINAL?

Thuraya IP+ is a next generation IP terminal, which in addition to supporting all the features and functionalities of the Thuraya IP, also supports many other capabilities. Thuraya IP+ supports the highest bandwidth of 384 Kbps on Streaming IP and 444 Kbps on Standard IP with a built-in antenna.

11. WHAT OTHER ADDITIONAL FEATURES AND FUNCTIONALITIES DOES THURAYA IP+ OFFER OVER THURAYA IP?

Thuraya IP+ offers many additional features and functionalities over Thuraya IP. These include:

- Enhanced Wifi with added security
- Streaming Alert
- M2M Watchdog
- Remote Access
- Extract Terminal Summary Log

12. HOW HAS THURAYA IMPROVED WIFI FUNCTION ON THE THURAYA IP+?

Thuraya IP+ supports WLAN b/g/n which ensures enhanced security over Wi-Fi connections. It supports WEP, WPA and WPA2 Wi-Fi encryption which makes it more secure:

- WEP uses a 10-character password which is static.
- WPA uses password and a shared key which changes every time making it more secure.
- WPA2 supports AES 256 encryption.
- WLAN 'n' offers better range of up to 100 meters in open unblocked area.

13. WHAT IS STREAMING ALERT AND HOW DOES IT HELP?

Thuraya IP+ offers three types of Streaming Alerts: Audio, Visual and web Man Machine Interface (wMMI) to ensure that users who use Streaming IP can avoid bill shocks in case they forget to switch off their streaming session. When the Streaming Alert is enabled on the terminal, following will be indicated:

- Audio alert (beep from the terminal buzzer) every 30 seconds after 10 minutes of inactivity
- during a streaming session
- The display backlight will flash every 10 seconds
- The web MMI will display a timer to track the duration of the streaming session
- The alert can be cancelled by pressing a button on the terminal. The user has the option of disabling this alert through web MMI setting.

14. HOW HAS THE GPS MODULE ON THURAYA IP+ BEEN ENHANCED?

The GPS module on Thuraya IP+ provides a faster fix on GPS and quicker access to the network. The GPS antenna has also been enhanced to penetrate glazed/tinted glass for users who are indoors.

15. WHAT IS REMOTE ACCESS AND HOW DOES IT HELP?

The Remote Access feature on the Thuraya IP+ enables users to log into the terminal remotely with a secure user password. It provides the user with remote administrative control without having to return the terminal to the office. Remote Access is a very important feature for unattended sites and enables users to monitor and change their configurations remotely.

16. WHAT IS THE EXTRACT TERMINAL SUMMARY OR CONFIGURATION CAPTURE FEATURE?

The extract terminal summary feature on the Thuraya IP+ allows users to have a snapshot of the terminal in one easy step by pushing a button on the web MMI. This diagnostic capability provides immediate information updates for IT departments. The captured information includes:

- UTC date and time of the file transfer
- RSSI, SQI, IMEI, IMSI,
- GPS location, status, satellites, stored location validity
- Software version, APN, network status, public IP
- Antenna type, pointing status, search mode status
- Current error code
- DHCP status, net mode status, DMZ host
- Auto power ON status
- WLAN power, region, channel, SSID and security status

17. WHAT DOES THE THURAYA IP+ PACKAGE CONTAIN?

The Thuraya IP+ package contains:

- Thuraya IP+ satellite modem
- AC mains power adapter and cable
- Rechargeable lithium ion battery
- Ethernet cable
- User manual
- Quick start guide

18. DO I HAVE TO INSTALL ANY SOFTWARE ON MY PC BEFORE CONNECTING THURAYA IP+?

Thuraya IP+ is a true plug and play device. The browser on your PC that supports Java can be used to operate this terminal. You can also operate the terminal by using any smartphone or a tablet that support Wi-Fi, eg: iPhone, iPad, Blackberry, Samsung, etc.

19. HOW LONG DOES THE BATTERY LAST IF THE TERMINAL IS CONTINUOUSLY IN USE?

The battery lasts up to 1 hour when continuously transmitting at maximum speed. It lasts up to 2.5 hours with continuous reception at the highest speed and approximately 36 hours on standby.

20. WHAT ARE THE MOST EFFECTIVE WAYS SETTING UP THURAYA IP+?

You can setup in the following ways:

- Place the Thuraya IP+ outside and use the computer/laptop on WLAN
- Place the Thuraya IP+ outside and extend the connectivity from Thuraya IP+ to the laptop via a LAN cable that is up to 100 meters in length.
- Place the Thuraya IP+ external antenna outside and connect to the Thuraya IP+ indoors with a long antenna cable that comes with the external antenna.

21. WILL MY UNIT BE UPGRADED AUTOMATICALLY IF THERE IS A NEW VERSION?

No, you have to download the new version of the software from the Thuraya IP+ web page on Thuraya website and then upgrade the firmware on your terminal by following the steps described in the upgrade manual.

22. DO I HAVE TO ADD SPECIFIC APPLICATIONS TO IMPROVE THE PERFORMANCE OF MY THURAYA IP+?

The performance of any satellite IP link can be improved by using a special Performance Enhancement Proxy software. You can easily download the software from our website or you can request for it from Thuraya Customer Care.

23. THURAYA IP VS. THURAYA IP+?

| | Thuraya IP | Thuraya IP+ |
|---------------------------------------|---|--|
| Physical Characteristics | | |
| Weight | 1.3 kg (terminal and battery) | 1.4 kg (terminal and battery) |
| Size | 158mm x 225mm x 50mm (A5 size) | 216mm x 216mm x 45mm |
| Packet Data Services | | |
| StandardIP | Without External Antenna: Upto 444/202 kbps (downlink/uplink) With External Antenna: Upto 444/404 kbps (downlink/uplink) | Upto 444/404 kbps (downlink/uplink) with a built-in antenna |
| StreamingIP | Without External Antenna: 256 kbps With External Antenna: 384 kbps | 384 kbps |
| Tolerances | | |
| Operating Temperature | Running from External Supply: -25°C to +55°C | Running from External Supply: -25°C to +55°C |
| | Running from Battery: 0°C to +50°C | Running from Battery: 0°C to +50°C |
| Storage Temperature | Including Battery: -20°C to +60°C | Including Battery: -20°C to +60°C |
| | Excluding Battery: -40°C to +80°C | Excluding Battery: -25°C to +80°C |
| Operating Humidity | 95% RH at 40°C | 95% RH at 40°C |
| Mechanical Vibration | 200-2000 Hz, 0.3 m ² /s ³ | 200-2000 Hz, 0.3 m ² /s ³ MIL-Spec 810B |
| Unpacked Drop | 0.5 m on Concrete Surface | 0.5 m on Concrete Surface |
| Ingress Protection | IP-55 Standard | IP-55 Standard |
| Compliances and Certifications | | |
| | GmPCS, CE, RoHS | CE, EMC 301 444, 301 489, IEC 60950 |
| Power | | |
| External Power | Mains power supply adapter, 100-240 V AC at 50-60 Hz | Mains power supply adapter, 100-240 V AC at 50-60 Hz |
| Output Voltage | 12 volt DC | 19 volt DC, 3.4 amps |
| Battery | | |
| Battery Life | Up to 36 hours standby time 1 hour of continuous transmission at the highest rate | Up to 36 hours standby time 1 hour of continuous transmission at the highest rate |
| Battery Type | Lithium-Ion | Lithium-Ion |
| Interfaces | | |
| Connectors | Ethernet (RJ-45), USB | Ethernet (RJ-45) |
| User Interface | Web based graphical user interface accessible via standard web browser. | Web based graphical user interface accessible via standard web browser. |
| External Antenna Connector | GPS, Passive & Active Satellite antennas | GPS and only one antenna connector |
| WLAN Connectivity | IEEE 802.11b standard with: | IEEE 802.11 b/g/n standard with: |
| | • WEP encryption | • WEP, WPA and WPA2 encryption |
| | • SSID Broadcasting control | • SSID Broadcasting control |
| | • MAC address filtering | • MAC address filtering |
| | • DHCP | • DHCP |

24. NEED SUPPORT?

If you have any questions, please contact your Key Account Manager or Customer Care:

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