



Thuraya IP+<sup>PLUS</sup>

Frequently Asked Questions

March 2013

# THURAYA IP+

## 1. WHAT IS 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 TYPE OF NETWORK COVERAGE WILL I GET BY USING IT?

The Thuraya coverage footprint covers more than two-thirds of the globe across 140 countries in Asia, Africa, Australia, Europe and Middle East.

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

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

- Standard IP, also known as Background IP or Variable Bit Rate (VBR) offers up to 444 Kbps data connectivity on a shared mode or best effort basis.
- Streaming IP, also known as Constant Bit Rate (CBR) 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. IS IT MANDATORY TO USE AN EXTERNAL ANTENNA TO GET THE HIGHEST BANDWIDTH?

No, Thuraya IP+ has a built-in antenna that can support the highest available bandwidth.

## 6. 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

## **7. 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.

## **8. WHAT TYPES OF QUALITY OF SERVICE (QOS) DOES THURAYA IP+ HAVE?**

Thuraya IP+ offers two types of QoS. They are:

- **Standard IP:** This service offers shared channel resources among several users. This means that in any spot beam, the number of users logged on and are actively using the service will be sharing the available channels. The throughput may vary depending on the 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 as well as downlink. In this mode, if a subscriber opts for 384 Kbps uplink and 64 Kbps downlink, the 384 Kbps uplink bandwidth and 64 Kbps downlink bandwidth is dedicated to this subscriber only. The throughput is constant during the session.

## **9. WHAT ARE THE UPLINK AND DOWNLINK BANDWIDTH OPTIONS AVAILABLE ON STREAMING IP?**

Thuraya IP+ offers Asymmetric Streaming services which enable users to have numerous uplink / downlink bandwidth options. It offers unmatched flexibility for variable uplink and downlink streaming bandwidths to suit any type of dedicated bandwidth requirement.

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.

## **10. WHICH COMPANY MANUFACTURES THE THURAYA IP+ TERMINALS?**

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

## **11. 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 making it the most desired satellite IP broadband modem. Thuraya IP+ supports the highest bandwidth of 384 Kbps on Streaming IP and 444 Kbps on Standard IP with a built-in antenna.

## **12. 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

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

Thuraya IP+ WiFi 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.

### 14. 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

### 15. 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.

### 16. 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.

### 17. 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

## 18. WHAT DOES THE THURAYA IP+ PACKAGE CONTAIN?

The Thuraya IP+ package contains:

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

## 19. 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.

## 20. 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.

## 21. WHAT ARE THE MOST EFFECTIVE WAYS SETTING UP THE 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 an EA 1426 antenna or a SCAN Antenna 62 100.

## 22. 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.

## 23. 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.

## 24. HOW MUCH DOES THE THURAYA IP+ TERMINAL COST?

Please consult your Account Manager or Thuraya Service Partner for the cost of the

terminal.

## 25. WHAT AIRTIME PLANS ARE AVAILABLE FOR THURAYA IP+?

All price plans for the Thuraya IP will be extended to the Thuraya IP+. These include all the on- demand as well as the unlimited price plans.

	Thuraya IP	Thuraya IP+
<b>Physical Characteristics</b>		
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
<b>Packet Data Services</b>		
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
<b>Tolerances</b>		
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 <sup>2</sup> /s <sup>3</sup>	200-2000 Hz, 0.3 m <sup>2</sup> /s <sup>3</sup> 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
<b>Compliances and Certifications</b>		
	GmPCS, CE, RoHS	CE, EMC 301 444, 301 489, IEC 60950
<b>Power</b>		
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
<b>Battery</b>		
Battery Life	Up to 36 hours standby time	Up to 36 hours standby time
	1 hour of continuous transmission at the highest rate	1 hour of continuous transmission at the highest rate
Battery Type	Lithium-Ion	Lithium-Ion
<b>Interfaces</b>		
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

THURAYA   
stay close