11 Things You Need to Know About the Telos Zephyr iPort PLUS Multi-Codec Gateway

1. **iPort PLUS transports multiple channels of stereo audio across IP networks.**
   Many broadcasters operate studios in different buildings, separated by a few hundred feet or a few hundred miles. Often, they'd like to share live audio sources between locations. iPort PLUS transports multiple channels of stereo audio across IP networks including private WANs, IP-radio links, and over the Public Internet. Configurable for eight stereo bidirectional MPEG (or optional aptX® Enhanced codecs – see below) plus eight more linear codecs; eight MPEG plus eight aptX Enhanced (optional) codecs; or encode / decode of up to 16 unidirectional stereo streams. iPort connects to your Axia Network using a single CAT-6 cable for all I/O, or pair with Livewire audio nodes for use as a standalone multistream codec.

2. **The iPort PLUS is a multi-codec, multi-destination gateway.**
   The iPort PLUS can send up to sixteen (16) different stereo programs to multiple IP-connected destinations. In fact, each of iPort's 16 codecs can send a coded IP audio stream to eight different IP addresses. That's a total of up to 128 stereo IP audio stream destinations.
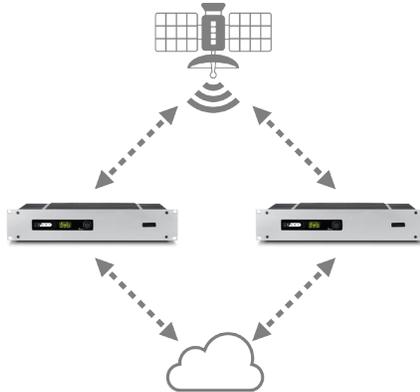

Up to 128 stereo stream destinations from each Telos iPort PLUS

3. **The iPort PLUS can use either single-stream connections, or dual-stream connections.**
    While single-stream IP connections can be very reliable, especially over MPLS IP connections, dual-stream connections are virtually guaranteed to have 100% uptime. Of course, dual-stream IP connections should be made as diverse as possible. One or both of them could even be satellite- or IP radio-linked. The result is absolutely seamless audio, even if one IP connection becomes unusable (think sun fade for satellite or backhoe fade for terrestrial IP connections).

4. **The iPort PLUS's 16 IP-audio codecs are two-way.**
    Each of the 16 codecs can receive audio from one location at the same time it's sending audio to up to eight locations. The receive audio does not need to be correlated in any way with that codec's send audio program. This allows maximum flexibility in receiving audio programs while sending other ones.

5. **The iPort PLUS offers genuine Fraunhofer (FhG) audio codecs, plus optional Enhanced aptX® codecs.**
    And for bit-accurate audio over higher-bandwidth connections, linear PCM mode is always available on any codec channel. Eight FhG codecs are included. Eight Enhanced aptX codecs are optional. Any codec channel may be set to linear PCM at 24 bits.

6. **The iPort PLUS can connect to other iPorts in many locations simultaneously.**
    Some iPort PLUS users will simply connect two of them together from different locations. However, the iPort PLUS can send and receive audio, closures, and metadata to and from many locations at once. Each iPort PLUS can receive from 16 outside codecs in the same or different locations, plus can send up to 16 program channels to up to 128 locations (64 locations with 2-stream redundancy).

7. **The iPort PLUS provides end-to-end contact closures.**
    Indeed, you get a total of 20 end-to-end contact closures, perfectly synced with the program audio. No matter how complex your programming, iPort PLUS can transport cutaway, rejoin, legal ID, liner, bumper, end-of-program—whatever contact closures you require!

8. **The iPort PLUS provides end-to-end serial data.**
   Many audio program suppliers want to provide title, artist, sponsor, and other metadata to their partners and affiliates. The iPort PLUS makes that easy by providing three data channels for each stereo program source. These data channels are in perfect sync with the associated channel's audio program. The serial data channels are not limited to program metadata, but can be any 9600 bps serial data over IP.

9. **The iPort PLUS offers high-precision program delay.**
   Audio distribution networks often span two or more time zones. An optional server-grade SSD "hard drive" allows the delay of any received audio program for up to 24 hours. All contact closures and serial metadata are precisely preserved, and offered up in perfect sync with the audio program upon playout. There are no spinning hard drives or other mechanical parts to wear out.

10. **The iPort PLUS is designed for rugged reliability and set-and-forget configuration.**
    Each iPort PLUS is delivered with two hot-swappable power supplies, operating in a fully redundant configuration. After setting an IP address locally, further control is handled by remote access. A straightforward web GUI handles configuration, while SNMP and Syslog provide status and logging.

11. **The iPort PLUS has no moving parts inside. None!**
    We designed the iPort PLUS for years of unattended reliability and flawless audio distribution and contribution. There are no fans and no spinning hard drives to wear out. Very modest operational heat is removed by two large heatsinks. This also implies that the iPort PLUS is seriously quiet!