Genie STL (TLR5200S)

Tieline’s Genie STL is the World’s most powerful DSP-based stereo IP audio codec for mission critical point-to-point connections. It has dual Gigabit Ethernet ports, dual internal power supplies, audio silence detection and IP network backup solutions to ensure you’re always on the air.

Applications

Genie STL is specifically designed for continuous operation over the full range of both wired and wireless IP networks. It is ideal for:

- Studio-to-Transmitter Links (STLs)
- Stereo Studio-to-Studio Links
- Other mission-critical point-to-point connections.

Unsurpassed Clarity

Genie STL is capable of 24bit 96kHz low latency linear PCM audio for unsurpassed sonic clarity. It also includes the low delay and cascade-resilient aptX® Enhanced algorithm, as well as other popular algorithms including the full AAC suite, variable bit-rate Opus, MPEG Layer II, MP3, Tieline Music and MusicPLUS, G.722 and G.711 algorithms.

Rock Solid Audio over Low-Cost IP Links

Tieline’s SmartStream PLUS is revolutionising IP broadcasting. It delivers the rock solid and reliable STL-grade audio quality you would normally expect over a T1/E1 link, by using inexpensive unmanaged IP networks like the internet for STLs, audio distribution and remotes.

SmartStream PLUS

Use SmartStream PLUS to stream simultaneous redundant data streams from both Ethernet ports and deliver seamless redundancy by switching back and forth, without loss of audio, from the nominated primary data link to the backup link if one fails and then subsequently recovers. Use IP links from two different IP network providers for optimal redundancy over mission critical STL connections.
Automated jitter buffer management and Forward Error Correction (FEC) assist in maintaining reliable, rock solid connections and automatic silence detection can fail over to backup audio files on a drive connected to the codec’s USB port if required.

**Save Money with SmartStream PLUS**

Tieline can show you how an investment in new codecs will pay for itself in months by using inexpensive IP links at a fraction of the cost of leased lines. Some other manufacturers charge thousands for IP management software like SmartStream as if it’s an optional extra. Tieline believes high performance and rock-solid reliability is an essential part of each and every broadcast and delivers its renowned SmartStream PLUS IP management software for free!

**Unrivalled Compatibility**

Genie Distribution supports both IPv4 and IPv6 (Dual Stack) protocols, so broadcasters can be assured that they have made a smart investment for the future. You can also connect over IP with any SIP-enabled IP codec brand supporting the EBU N/ACIP tech 3326 standard.

Optional ISDN[^3] and POTS[^3] modules allow you to interface with your existing infrastructure, as your network transitions to IP.

**Codec Management**

Use Tieline’s Toolbox web-browser Graphical User Interface to connect to your codec and configure individual codec settings over a LAN, WAN or the internet.

The Codec Management System[^3] allows you to use any computer to manage your entire network of IP codecs remotely.

[^1]: Requires 3rd Party Device  
[^2]: Future Release  
[^3]: Sold Separately
** Available in later releases

### Input/Output Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analog Audio Inputs</strong></td>
<td>2 x Female XLR line inputs</td>
</tr>
<tr>
<td><strong>Analog Audio Outputs</strong></td>
<td>2 x Male XLR</td>
</tr>
<tr>
<td>AES3 In</td>
<td>1 x female XLR (Channel 1 in; shared with Ch1 analog input)</td>
</tr>
<tr>
<td>AES3 Out</td>
<td>1 x male XLR</td>
</tr>
<tr>
<td>Aux Input</td>
<td>1 x 6.35mm (1/4&quot;) Mic/Line level Jack on rear panel</td>
</tr>
<tr>
<td>Headphones Out/Aux Out</td>
<td>1 x 6.35mm (1/4&quot;) Jack on rear panel and 1 x 6.35mm (1/4&quot;) Jack on the front panel</td>
</tr>
<tr>
<td>Sync Input</td>
<td>BNC Wordclock input</td>
</tr>
<tr>
<td>Control Port In/Out</td>
<td>Four relay inputs and four opto-isolated outputs for machine control via a DB15 connector.</td>
</tr>
<tr>
<td>Audio Input Impedance</td>
<td>High Impedance &gt; 5K ohm</td>
</tr>
<tr>
<td>Output Impedance</td>
<td>&lt; 50 ohm Balanced</td>
</tr>
<tr>
<td>Clipping Level</td>
<td>+22dBu (input and outputs)</td>
</tr>
<tr>
<td>A/D &amp; D/A Converters</td>
<td>24 bit</td>
</tr>
<tr>
<td>Frequency Response</td>
<td>20kHz to 22kHz</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>&lt; 0.0035% at +16dBu or -89 dbu unweighted</td>
</tr>
<tr>
<td>Signal To Noise Ratio</td>
<td>&gt; 98.5dB at +22dBu, unweighted</td>
</tr>
</tbody>
</table>

### Sample Frequencies

**IP Sample Frequencies**:  8kHz, 16kHz, 32kHz, 44.1kHz, 48kHz, 96kHz

### Algorithms

**IP**: Tieline Music, Tieline MusicPLUS, Opus, G.711, G.722, MPEG Layer 2, MPEG Layer-3, Linear PCM16/24 bit 32kHz, 44.1kHz, 48kHz, 96kHz

**IP (uncompressed)**: Tieline Music, Tieline MusicPLUS, Opus, G.711, G.722, MPEG Layer 2, MPEG Layer-3, Linear PCM16/24 bit 32kHz, 44.1kHz, 48kHz, 96kHz

### Data and Control Interfaces

**USB**: USB 2.0 Host port on the front panel

**LAN**: 2 x 10/100/1000 RJ45 connectors

**Serial**: RS232 up to 115kpbs with or without CTS/RTS flow control can be used as a proprietary data channel

**Protocols**: Tieline, SIP/SDP (E4B/AC/3526 compliant), RTP, DHCP, SNMP, DNS, HTTP, IGMP, ICMP, VLAN, IPv4/IPv6

### Advanced Networking

**IEEE 802.1Q,802.1p**

### Front Panel Interfaces

**Display**: 256 x 64 monochrome LCD

**Keypad**: 21 button keypad

**Navigation**: 5 button keypad

### General

**PC Configuration**: User-configurable settings and matrix audio mixer** via browser-based Toolbox Graphical User Interface

**Multilingual**: Multilingual menus and configuration software

**Remote Control**: Compatible with Codec Management System software (optional purchase)

**Size**: 1U x 19” Rackmount

**Dimensions**: 19” x 1.75” x 13.5” [482mm (W) x 44mm (H) x 343mm (D) including rear connectors]

**Weight**: 6lb 7.7oz/2.94Kg

**Power Consumption**: Dual 100-240V IEC power inputs; 1A 50-60Hz

**Operating Temperature**: 0°C to 45°C (32°F to 113°F)

**Humidity Operating Range**: 20% ≤ RH ≤ 70% (0 to 35°C/32°F to 95°F), non-condensing.

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**Extensive dealer network with global telephone support in 2 strategic locations around the world**

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