

# Intraplex® IP Link 100c

Compact, portable audio over IP STL codec





A member of the award-winning Intraplex® IP Link audio codec family, the IP Link 100c is a powerful compact AoIP model, designed to provide state-of-the art capabilities for remote contribution, studio-to-transmitter, and studio-to-studio applications at an affordable price.

With a full-duplex AES3, Analog, AES67 input and output along with 3 GigE network ports, the IP Link 100c packs full-featured IP audio codec capabilities into a compact portable half-rack unit. The optional Mic level input further adds to the capabilities for reliable remote broadcast capabilities. Interoperable with other IP Link codecs and Ascent, it is also compatible with industry- standard AoIP formats, including support of FM-MPX signal transport. With the support of payload privacy using built-in 128/256 key encryption via Secure Reliable Transport (SRT), the IP Link 100c is extremely secure and flexible. Stream splicing and automatic multi-source audio switching, including USB playlist as backup, further ensures reliability with constant and successful signal transport for your station.

#### **Product Features**

- Full-duplex, single stereo channel with selectable AES3, Analog and AES67 input and output
- Support for Line and Mic level input
- AoIP formats include Linear, Compressed, AES67, and Icecast
- Standard audio coding: Linear; Opus
- Optional audio coding: AAC-LC; AAC-HE; AAC-HEv2; AAC-ELD; AES192; MPEG2; MPEG3; Icecast; Shoutcast
- Protocol Encapsulation: RTP; Icecast (requires optional audio coding pack); SRT
- Three independent IP interfaces for redundant network operation
- Built-in silence sensor
- Automatic backup to audio playout from USB drive
- Multicoding allows the input Line or Mic level signal to be sent to multiple destinations with different encoding formats and protocols
- Prioritized stream sources at the decoder with automatic switch over and switch back between primary, secondary, and backup sources
- Programmable RTP-level Forward Error Correction (FEC) scheme
- Integrated with Intraplex LiveLook (network analytics and monitoring software)
- Support for IP multicast and multi-unicast

- Web browser user interface and SNMP network management
- Four multipurpose contact closure inputs and outputs provide:
  - Transport of logic signals with timealignment to audio
  - Alarm notification
- Additional options:
  - µMPX transport a full FM composite MPX signal, including pilot and RDS, with perfect peak control with bitrate of 320 kbit/s.
     Compatible with Intraplex SynchroCast.
  - 10-band high-precision audio processing
  - Digital FM-MPX format support with compatibility with IP Link MPXp
  - Secure Reliable Transport (SRT) with 128/256-bit encryption and automatic packet re-transmission
  - Dynamic Stream Splicing for both RTP and SRT formats, providing "hitless" operation over diverse network paths
  - SynchroCast™ provides dynamically managed precision delay for Single Frequency Network (SFN) broadcasting and simulcasting
  - Internal plug-in module supports two microphone level inputs

### **Product Details**

The IP Link 100c is a full-duplex, single stereo-channel codec for simultaneous reception and transmission of AoIP streams. The codec is designed to be compatible with the IP Link codec family and Ascent, including the IP Link MPXp codec for FM-MPX signal transport.

The IP Link 100c is designed to provide an unprecedented level of full-featured reliability in an affordable compact form factor.

At the streaming layer, the combination of SRT and Dynamic Stream Splicing (DSS) provides a set of networking tools for signal reliability even over challenging IP connections. The SRT transport protocol can simultaneously re-transmit lost packets in real-time while encrypting the full payload. When using the traditional RTP transport format, the packet loss protection is provided using Forward Error Correction (FEC) and time diversity of packets. The optional Dynamic Stream Splicing (DSS) provides "hitless" protection against packet or link losses using diverse network paths for both SRT and RTP transport formats.

## Product Details (continued)

With full-duplex capability, the codec enables simultaneous operation of multiple transmit streams and receive streams for reliability. Using Multicoding capability, the transmit streams can be sent to multiple destinations with different formats and encoding. For instance, feeding multiple transmitter sites with different network bandwidths or feeding an Icecast server simultaneously, while sending an RTP or SRT streams to remote studio or transmitter locations.

In addition to the various built-in "hitless" packet loss protection techniques (e.g. FEC, re-transmission and DSS), the decoder also provides for three prioritized sources for

switching. The source switching protects against failure of either an encoder or the main network connection. The codec lets the user define Primary, Secondary and Backup sources of streams or local USB audio.

An example configuration:

 Primary source stream: DSS protected from the studio encoder

- Secondary source: an Icecast stream
- Backup source: a local USB file

The switching between these sources can be configured to be fully automatic or user initiated.

For control and status, the IP Link 100c provides an intuitive web interface and comprehensive SNMP interface.



## **Specifications**

Specifications and designs are subject to change without notice

Overview	
Channels	One full-duplex stereo (or two mono) program audio channel or one MPX channel, encode and decode
Audio Coding	■ Standard: Linear Uncompressed, Opus, AES67 ■ Optional Package 1: MPEG2, MPEG3, AAC-LC, AAC-HE, AAC-HEv2, AAC-ELD, AES192 ■ Optional µMPX: MicroMPX Encoder & MicroMPX Decoder (sold separately). Transport a full FM composite MPX signal, including pilot and RDS, with perfect peak control with bitrate of 320 kbit/s. Compatible with Intraplex Syncrocast feature.
FM MPX via AES192 (BB192)	Support for transport of FM MPX via AES192 (BB192) composite signal. Sampling rates and sample size compatible with IP Link MPXp.
Streaming Format	RTP (EBU N/ACIP Tech 3326), SRT, Icecast (requires optional audio coding algorithms)
SynchroCast	Optional: Audio delay programmable up to 2.5 seconds with 1 microsecond accuracy
Multicoding	Allows the input to be encoded and streamed out using multiple different algorithms simultaneously
Webcasting	Can receive and transmit Icecast streams (requires optional audio coding algorithms)
Backup	<ul><li>Configurable for automatic backup to secondary incoming audio stream</li><li>Playout of audio from USB drive</li></ul>
Aux Data Channel	RS-232 data transport programmable to 2400, 4800 & 9600, and 19200 bps with time-alignment to audio streaming
Contact Closures	<ul> <li>Four input and four output opto-isolated contact closures, with time-alignment to audio streaming</li> <li>Contact inputs can transport state to peer within the stream packet</li> <li>Contact outputs can receive state from peer or be linked to system alarms</li> </ul>
Connectors	<ul> <li>Ethernet: Three 10/100/1000 Base-T, RJ-45 connector</li> <li>XLR: Four for analog L&amp;R audio and AES/EBU inputs and outputs. User selectable for either analog or AES/EBU</li> <li>RS-232: One full-duplex port, RJ-45 connector</li> <li>Contact Closures: RJ-45 connector</li> <li>USB: One type A connector</li> <li>Audio Headphone: One ¼" stereo headphone jack</li> </ul>
Digital Audio	
Accepted Audio Sampling Rates	Accepts AES/EBU sample rates between 32 and 192 ksps to support both discreet (L&R) audio and AES192 (BB192) signals
Sample Rate Conversion	Automatic sample rate conversion at input with a THD of 120 dB
Digital Gain	AES/EBU output has micro adjustable gain between +6 and -6 dB
Analog Audio	
Input Impedance	Balanced, greater than 10 k Ohms
Output Impedance	Balanced, less than 52 Ohms
Audio Frequency Response	■ 48 ksps: 10 Hz to 22 kHz ■ 44.1 ksps: 10 Hz to 20.5 kHz ■ 32 ksps: 10 Hz to 15 kHz
Audio Level	Full scale analog audio input/output: 9 to 24 dBu, user-settable in 1 dB steps

Dynamic Range   Greater than 91 d B   Sample Size   16 or 24 bit   6 or 24 bit   7 or			
Sample Size  16 or 24 bit Optional Internal plugin module supports up to two microphone level inputs from -26 to -50 dBu, user-settable in 1 dB steps. Module supports up to two microphone level inputs from -26 to -50 dBu, user-settable in 1 dB steps. Module supports user-settable at 8 VOC microphone power  FM MPX using AES192 (BB192)  Interoperation Interoperation with intraples IP Link MPXp Sample Size  12, 14, 16, 20, or 24 bit Effetience  Three network powers and a control of the step of th	Total Distortion	(THD+N) Less than 0.003% at 1 kHz, -1 dBFS input	
Microphone   Oglicosal internal plujoir module supports up to two microphone level injusts from .26 to .50 dBu, user-settable in 1 dB steps, Module supports upon two microphone level injusts from .26 to .50 dBu, user-settable in 1 dB steps, Module supports upon microphone power  Interoperation   Interoperation   Interoperation with Intraplex IP Link MPXp   Sample Rate   132, 162, or 192 ksps   Sample Rate   132, 162, or 192 ksps   Sample Rate   132, 162, or 192 ksps   Sample Rate   101/1001/1000 Base of full duplex, auto-negocation   Network Connections   Tow WAN ports plus management port   The retwork ports all qualibles for both size-aming and management   Network Frotocols   PPA, TCP, SRT, URP, RTP, NTP, DND, DND, DND, SNDMP, ARP, [OMP, Ullravox [M, v2] for iceast   Network Frotocols   PPA, TCP, SRT, URP, RTP, NTP, DND, DND, DND, SNDMP, ARP, [OMP, Ullravox [M, v2] for iceast   Network Frotocols   PPA, TCP, SRT, URP, RTP, NTP, DND, DND, DND, SNDMP, ARP, [OMP, Ullravox [M, v2] for iceast   Network Frotocols   PPA, TCP, SRT, URP, RTP, NTP, DND, DND, DND, SNDMP, ARP, [OMP, Ullravox [M, v2] for iceast   Note that the state of the st			
interoperation with intraplex IP Link MPXp  interoperation IP Link MPXp  interopera	*		
Interoperation   Interoperation   Interoperation with Intraglex IP Link MPVp   Sample Rate   13, 16, 2 or 192 keps   Sample Stare   12, 14, 16, 30, or 24 bit   Eithernet Data Rate   10/100/1000 Base-T full duplex, auto-negotiation   Network Connections   1 Two WAN ports plus management port   1 Two WAN ports plus management   2 Two WAN ports plus management   2 Two WAN ports plus management   2 Two WAN ports plus management   3 Two WAN ports plus management   2 Two WAN ports plus management   3 Two WAN ports plus management   3 Two WAN ports plus management   3 Two WAN ports plus management   4 Two WAN ports plus plus plus plus plus plus plus plu	Microphone		
Sample Rate 132, 162, or 192 ksps Sample Size 12, 14, 16, 20, or 24 bit  Therefore to the Commercions 10, 100 000 Base-T full duplies, auto-negotation  Network Connections 1 Two WAN ports plus management port  Three network protocols PP4, TCP, SRT, UDP, RTP, HTP, NTP, DNS, DNCP, SNMP, ANP, ICMP, Ultravok VI, V21 for locast  Remote Management	FM MPX using AES192 (BB19	92)	
Sample Stace   12, 14, 16, 20, or 24 bit	Interoperation	Interoperation with Intraplex IP Link MPXp	
Ethernet bar Rate In 10/10/01/000 Base-T full duplex, auto-negotiation  Network Connections	Sample Rate	132, 162, or 192 ksps	
Ethernet Data Rate	Sample Size	12, 14, 16, 20, or 24 bit	
Network Connections  Two WAN ports plus management port Three network ports all available for both streaming and management  PMA_TCP_SRT_UDE, PTA_FSRT_UDE, PTA_FSRT_STREAMS  **STREAMS**  **Trock of all streams with multiple IP destinations for the transmit streams **Setup: Static **S	Ethernet		
Three network ports all available for both streaming and management   Network Protocols	Ethernet Data Rate	10/100/1000 Base-T full duplex, auto-negotiation	
Remote Management    Web brower user interface HTTP/HTTPS with multiple levels of user accounts   SMMP with SMMP/2C/SMMP/3   Total of 8 streams with multiple IP destinations for the transmit streams   Setup: Static   Unicast, multi-unicast, multiples (TP only)     Standard REC payload formats, auto configuration     Source IP address and UID port verification at the receiver for security     Audio plus meta-data format to support GPIO and RS-232 alignment	Network Connections		
SNMP with SNMPvzCrSNMPv3  Streaming  RTP / SRT Streams  *** Total of 8 streams with multiple IP destinations for the transmit streams setup. Status Unicast, multi-unicast, multipate IP destinations for the transmit streams setup. Standard RFC payload formats, auto configuration source IP address and UPD port verification at the receiver for security Audio plus meta-data formats to support GPIO and RS-232 alignment  TCP Streams  Multiple Icecast streams not exceeding the total count of 8  Redundancy  Automatic failover mode between Primary, Secondary and Backup streams  Backup Audio Source  USB playlist  Optional: Enables multiple identical audio streams to be sent across the IP network (or two separate IP paths, if available) and provides for hitless switching at the decoder  for hitless switching at the decoder  Reliability  Secure Reliability  Secure Reliability  Secure Reliabile Transport (SRT) for automatic retransmission of lost packets, FEC, time diversity  Security  Security  Stream encryption supported in SRT AES-128/255 ()  Access control with user settable firewall configuration per network interface  Time Diversity  Time Diversity  Time delay configured on per stream basis, used with redundant streams for burst packet loss protection  Diagnostics  Test Tone Generator  1 kHz test tone at -12 dBFS  Loopbacks  Unput to output channel equipment loopback while simultaneously sending  Network Performance  Settinistics Tracked  Send and receive stream had group statistics for packets received, packet lost, packets received by FEC and packets sent  Satisfics Tracked  Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm  Methanical and Environmental  Dimensions (H x W x D)  1RU 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm)  ELAR Rak Mountable Weight  Power Consumption  1 Whats, typical  Configured  Complemental  Configured  Complemental  Comple	Network Protocols	IPV4, TCP, SRT, UDP, RTP, HTTP, NTP, DNS, DHCP, SNMP, ARP, ICMP, Ultravox (v1, v2) for Icecast	
RTP / SRT Streams    Total of 8 streams with multiple IP destinations for the transmit streams   Setup: Static   Unicast, multi-anclast, multicast (RTP only)   Standard RFC payload formats, auto configuration   Source IP address and IUPP port verification at the receiver for security   Audio plus meta-data format to support GPIO and RS-232 alignment   Multiple leceast streams not exceeding the total count of 8   Redundancy   Automatic failover mode between Primary, Secondary and Backup streams     Backup Audio Source   USB playlist     Optional: Enables multiple identical audio streams to be sent across the IP network (or two separate IP paths, If available) and provides for hitless switching at the decoder	Remote Management	The state of the s	
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Redundancy Automatic failover mode between Primary, Secondary and Backup streams Backup Audio Source USB playlist Optionals: Enables multiple identical audio streams to be sent across the IP network (or two separate IP paths, if available) and provides for hitless switching at the decoder litter Buffer Programmable jitter buffer depth up to 512 packets. Static or automatic jitter buffer adjustment Reliability Secure Reliable Transport (SRT) for automatic retransmission of lost packets, FEC, time diversity  Stream encryption supported in SRT (AES-128/256)  Access control with user settable firewall configuration per network interface  Time Diversity Time delay configured on per stream basis, used with redundant streams for burst packet loss protection  Diagnostics  Test Tone Generator I kHz test tone at -12 dBFS  Loopbacks Input to output channel equipment loopback while simultaneously sending  Network Performance Statistics Tracked Ping  Network Tools Ping  Alarms  Alarms  Alarms  Alarms  Alarms Reporting Major/minor alarms, normally open relay contacts, SNMP traps Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D) RLI 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm)  EIA Rack Mountable Weight 2.2 lbs (1 kg) typical  Power Supply External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption One-condensing  Operating Temperature 32° to 122° F (0° to 50° C)  Compliance  Compliance	RTP / SRT Streams	<ul> <li>Setup: Static</li> <li>Unicast, multi-unicast, multicast (RTP only)</li> <li>Standard RFC payload formats, auto configuration</li> <li>Source IP address and UDP port verification at the receiver for security</li> </ul>	
Backup Audio Source  Dynamic Stream Splicing  Optional: Enables multiple identical audio streams to be sent across the IP network (or two separate IP paths, if available) and provides for hitless switching at the decoder  litter Buffer  Programmable jitter buffer depth up to 512 packets. Static or automatic jitter buffer adjustment  Secure Reliable Transport (SRT) for automatic retransmission of lost packets, FEC, time diversity  Security  Stream encryption supported in SRT (AES-128/256)  Access control with user settable firewall configuration per network interface  Time Diversity  Time delay configured on per stream basis, used with redundant streams for burst packet loss protection  Diagnostics  Test Tone Generator  1 kHz test tone at -12 dBFS  Loopbacks  Input to output channel equipment loopback while simultaneously sending  Network Performance  Send and receive stream bandwidth  Ping  Alarms  Alarms  Alarm Reporting  Major/minor alarms, normally open relay contacts, SNMP traps  Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm  Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D)  EIA Rack Mountable Weight  2.2 lbs (1 kg) typical  Power Supply  External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption  Convection cooled  Humidity  10% to 90% non-condensing  Operating Temperature  Compliance	TCP Streams	Multiple Icecast streams not exceeding the total count of 8	
Dynamic Stream Splicing Optional: Enables multiple identical audio streams to be sent across the IP network (or two separate IP paths, if available) and provides for hitless switching at the decoder Programmable jitter buffer depth up to 512 packets. Static or automatic jitter buffer adjustment Reliability Secure Reliable Transport (SRT) for automatic retransmission of lost packets, FEC, time diversity  Security Security Stream encryption supported in SRT (AES-128/256) Access control with user settable firewall configuration per network interface Time Diversity Time delay configured on per stream basis, used with redundant streams for burst packet loss protection  Diagnostics  Test Tone Generator Loopbacks Input to output channel equipment loopback while simultaneously sending Network Performance Statistics Tracked Send and receive stream bandwidth Network Tools Ping  Alarms  Alarm Reporting  Major/minor alarms, normally open relay contacts, SNMP traps Maintains internal and syslog messages alarm log Bull:-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D)  IRU: 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm) EAR Rack Mountable Weight Power Supply External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption Convection cooled Humidity 10% to 90% non-condensing Operating Temperature  Zo to 122° F (0° to 50° C)  Compliance	Redundancy	Automatic failover mode between Primary, Secondary and Backup streams	
for hitless switching at the decoder	Backup Audio Source	USB playlist	
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Security Stream encryption supported in SRT (AES-128/256) Access control with user settable firewall configuration per network interface  Time Diversity Time delay configured on per stream basis, used with redundant streams for burst packet loss protection  Diagnostics  Test Tone Generator 1 kHz test tone at -12 dBFS Loopbacks Input to output channel equipment loopback while simultaneously sending  Network Performance 1 kHz test and group statistics for packets received, packet lost, packets recovered by FEC and packets sent statistics Tracked 2 Send and receive stream bandwidth  Network Tools Ping  Alarms  Alarm Reporting	Jitter Buffer	Programmable jitter buffer depth up to 512 packets. Static or automatic jitter buffer adjustment	
Access control with user settable firewall configuration per network interface   Time Diversity   Time delay configured on per stream basis, used with redundant streams for burst packet loss protection   Diagnostics   Test Tone Generator   1 kHz test tone at -12 dBFS     Loopbacks   Input to output channel equipment loopback while simultaneously sending     Network Performance   Per stream and group statistics for packets received, packet lost, packets recovered by FEC and packets sent     Send and receive stream bandwidth     Network Tools   Ping     Major/minor alarms, normally open relay contacts, SNMP traps     Maintains internal and syslog messages alarm log     Loss-of-Audio Alarm   Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio     Mechanical and Environmental     Dimensions (H x W x D)   TRU: 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm)     EIA Rack Mountable Weight   2.2 lbs (1 kg) typical     Power Supply   External 100-240 VAC, 50/60 Hz, AC/DC     Power Consumption   10 Watts, typical     Cooling   Convection cooled     Humidity   10% to 90% non-condensing     Operating Temperature   32° to 122° F (0° to 50° C)     Compliance   Compliance	Reliability	Secure Reliable Transport (SRT) for automatic retransmission of lost packets, FEC, time diversity	
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Test Tone Generator  1 kHz test tone at -12 dBFS  Loopbacks  Input to output channel equipment loopback while simultaneously sending  Network Performance Statistics Tracked  ■ Per stream and group statistics for packets received, packet lost, packets recovered by FEC and packets sent Send and receive stream bandwidth  Network Tools  Ping  Alarms  Alarm Reporting  ■ Major/minor alarms, normally open relay contacts, SNMP traps ■ Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm  Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D)  IRU: 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm)  EIA Rack Mountable Weight  Power Supply  External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption  10 Watts, typical  Cooling  Convection cooled  Humidity  10% to 90% non-condensing  Operating Temperature  32° to 122° F (0° to 50° C)  Compliance	Time Diversity	Time delay configured on per stream basis, used with redundant streams for burst packet loss protection	
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Send and receive stream bandwidth  Network Tools  Ping  Alarms  Alarm Reporting  Major/minor alarms, normally open relay contacts, SNMP traps Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm  Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D)  EIA Rack Mountable Weight  Power Supply  External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption  10 Watts, typical  Cooling  Convection cooled  Humidity  10% to 90% non-condensing  Operating Temperature  32° to 122° F (0° to 50° C)  Compliance	Loopbacks	Input to output channel equipment loopback while simultaneously sending	
Alarms  Alarm Reporting    Major/minor alarms, normally open relay contacts, SNMP traps   Maintains internal and syslog messages alarm log  Loss-of-Audio Alarm    Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio    Mechanical and Environmental	Network Performance Statistics Tracked		
Alarm Reporting  Major/minor alarms, normally open relay contacts, SNMP traps Maintains internal and syslog messages alarm log  Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio  Mechanical and Environmental  Dimensions (H x W x D)	Network Tools	Ping	
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Mechanical and Environmental  Dimensions (H x W x D)	Alarm Reporting		
Dimensions (H x W x D)  EIA Rack Mountable Weight  2.2 lbs (1 kg) typical  Power Supply  External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption  10 Watts, typical  Cooling  Convection cooled  Humidity  10% to 90% non-condensing  Operating Temperature  32° to 122° F (0° to 50° C)  Compliance	Loss-of-Audio Alarm	Built-in silence detection with ability to provide alarm and perform switch over of stream on loss of audio	
EIA Rack Mountable Weight  Power Supply  External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption  10 Watts, typical  Cooling  Convection cooled  Humidity  10% to 90% non-condensing  Operating Temperature  32° to 122° F (0° to 50° C)  Compliance	Mechanical and Environme	ntal	
Power Supply External 100-240 VAC, 50/60 Hz, AC/DC  Power Consumption 10 Watts, typical  Cooling Convection cooled  Humidity 10% to 90% non-condensing  Operating Temperature 32° to 122° F (0° to 50° C)  Compliance	Dimensions (H x W x D)	1RU: 1.75 x 8.5 x 6 in. (4.45 x 21.6 x 15.2 cm)	
Power Consumption 10 Watts, typical  Cooling Convection cooled  Humidity 10% to 90% non-condensing  Operating Temperature 32° to 122° F (0° to 50° C)  Compliance	EIA Rack Mountable Weight	2.2 lbs (1 kg) typical	
Cooling Convection cooled Humidity 10% to 90% non-condensing Operating Temperature 32° to 122° F (0° to 50° C)  Compliance	Power Supply		
Humidity 10% to 90% non-condensing  Operating Temperature 32° to 122° F (0° to 50° C)  Compliance	Power Consumption	10 Watts, typical	
Operating Temperature 32° to 122° F (0° to 50° C)  Compliance	Cooling	Convection cooled	
Compliance	Humidity	10% to 90% non-condensing	
	Operating Temperature	32° to 122° F (0° to 50° C)	
Regulatory Compliance CE, FCC Part 15 Class A, UL 60950, RoHS	Compliance		
	Regulatory Compliance	CE, FCC Part 15 Class A, UL 60950, RoHS	