APOGEE LABS

AL1110 Serial PCM Input Node (SPIN)

AL1111 Serial PCM Output Node (SPON)

AL1110

The AL1110 SPIN and AL1111 SPON are part of a series of Apogee Labs Data Network Appliances (DNA) that provide a flexible, scalable and cost effective Ethernet transport for serial PCM data, audio, and video (NTSC and PAL). The SPIN and SPON enable PCM data and clock with serial rates up to 35 Mbps to be sent across LAN's and WAN's at network speeds of 10/100/1000 Mbps with minimal overhead. The DNA series is built on a core technology that supports transport speeds in excess of 500 Mbps thus allowing for future expansion to utilize the capabilities of higher bandwidth network designs.

The SPIN and SPON were developed with both the novice and experienced network integrator in mind. Novice users need only modify a minimal number of settings to begin transmitting data over the network; whereas advanced users may modify packet sizes, port numbers, protocols, MTU sizes, and other lower level settings.

The DNA series was designed to minimize latency as well as time-stamp data packets for time correlation on mission critical events. Time stamps may be generated by use of the SPIN's internal clock or a user supplied IRIG A, B or G time reference.

Another advantage is the plug-n-play interconnectivity of these modules with existing standards and legacy equipment. The packetized data stream may be sent directly to systems on your network or anywhere on the worldwide web such as remote monitoring or display stations, data processors or mass storage devices.

- 10 / 100 / 1000 Mbps Ethernet connectivity
- TCP / IP, UDP / IP (Unicast, Multicast, and Broadcast), TMoIP, SMB, ICMPv2, DHCP, ARP, and Telnet protocols
- Serial PCM channel TTL and RS-422, 1 kbps to 35 Mbps
- Time code output (IRIG A/B/G)
- OS independent remote control
- Apogee Extended Remote Control (APEX) Compatible
- Web Browser—Mozilla Firefox (1.5 +) and Microsoft Internet Explorer (6+) supported

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SPECIFICATIONS

INPUTS:

IRIG A/B/G
- Input signal level: 0.2Vp-p min / 8.5Vp-p max
- Input impedance: 600Ω +/- 5% AC-coupled
- Maximum input without damage: +/- 15V

TTL DATA/CLOCK
- TTL level signals
- Input impedance: 75Ω or 50Ω +/- 5% user selectable
- Input capacitance: <25pF at 1Mbps
- User programmable data rate: 1000bps – 35Mbps
- NRZ-L Data with selectable 0 or 180°
- Automatic frequency tracking
- User Programmable polarities for data/clock

RS-422 DATA/CLOCK
- Signal levels in accordance with TIA/EIA-422-B
- Input impedance 110Ω line to line
- Input capacitance in accordance with TIA/EIA-422-B
- User programmable data rate: 1000bps – 35Mbps
- NRZ-L Data with 0° clock
- Automatic frequency tracking
- User programmable polarities for data/clock

ETHERNET
- Data Rate: 10/100/1000 Mbps

GENERAL:
- Packet/Data overhead <0.1% when optimally configured
- System latency <10ms when optimally configured
- Factory default reset button

USER INTERFACES:
- HTTP web server, compatible web browsers Firefox 1.5+ / Windows Explorer 6+ compatible
- APEX
- NNAT
- SNMPv2
- Telnet – Windows/Linux/Unix

SUPPORTED OPERATING SYSTEMS:
- Windows XP SP2+
- Linux FC2+, RHEL 3+

SECURITY:
- User level password

OUTPUTS:

IRIG A/B/G
- Output Impedance: 50Ω, drives 600Ω
- Output Signal Level:
  - 1 Vp-p – 3.3 Vp-p
  - Modulation Ratio: 3.3:1

TTL DATA/CLOCK
- TTL level signals
- Data rate: 1000bps – 35Mbps
- NRZ-L Data with 0° clock or programmable polarities

RS-422 DATA/CLOCK
- Signal levels in accordance with TIA/EIA-422-B
- Data rate: 1000bps – 35Mbps
- NRZ-L Data with 0° clock or programmable polarities

ETHERNET
- Data Rate: 10/100/1000 Mbps

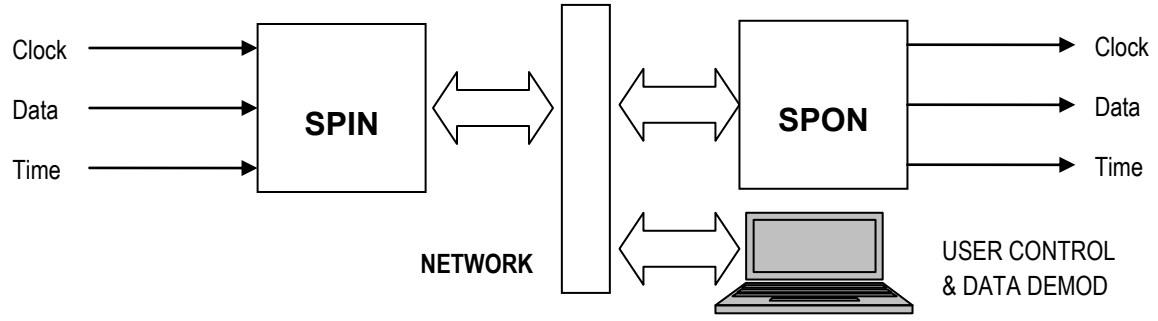
STATUS INDICATORS
- 10 Mbps Ethernet link
- 100 Mbps Ethernet link
- 1000 Mbps link, if both 10 and 100 Mbps lit
- Ethernet link FD
- Ethernet activity
- PCM Data and clock present
- Power

POWER:
- 2.5 mm Circular DC Jack
- Center Post is (+)
- Supply Voltage: 7.5 VDC to 28 VDC

ENVIRONMENTAL:
- Operating temperature - 0°C to 55°C
- Storage Temperature - -40°C to 70°C
- Altitude – 10,000 ft ASL operating; 40,000 ft ASL non- operating
- Humidity – up to 95% non-condensing

INTERFACE CONNECTORS:
- RJ45 - Ethernet Data and Control
- BNC Female - IRIG Inputs & Outputs
- BNC Female – TTL Data & clock Inputs & Outputs
- TRIAX Female – RS-422 Data & clock Inputs & Outputs

APPLICATION INFORMATION



Although Apogee Labs does attempt to provide specifications that are accurate, these specifications are subject to change or correction. Please contact a Sales Engineer to discuss requirments

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