



AL1112 Dual Channel TMOIP Processor

2-Channel, Bi-Directional Capability



The AL1112 Dual Channel TMOIP processor is a part of a series of Apogee Labs Data Network Appliances that provide a flexible, scalable and cost effective Ethernet transport for serial PCM data, audio, and video (NTSC and PAL). The AL1112 enables 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 AL1112 was 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 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, Dual Channel, Bi-Directional
- Time code (IRIG A/B/G)
- OS independent remote control
- Web Browser—Mozilla Firefox (1.5 +) and Microsoft Internet Explorer (6+) supported

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

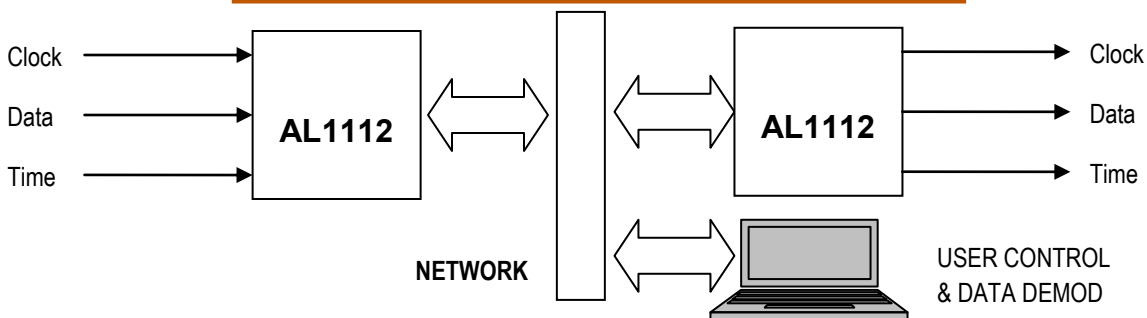
ENVIRONMENTAL:

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 requirements