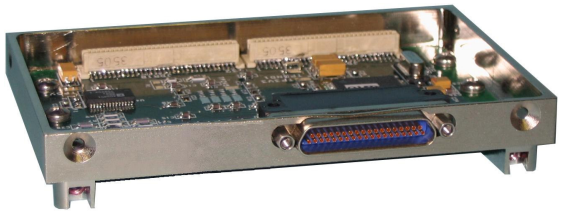
4003
APACK1 Packetizer Module



FEATURES

- Generates composite output data as transfer frames
- Typically <3% overhead
- TTL, PECL, and RS-422 serial output s
- Operate from 200 Kbps to 35 Mbps (NRZ codes); 200 Kbps to 15 Mbps (Bi-phase & DM codes)
- Onboard rate synthesizer, 1 bps Steps
- Galvanic isolated serial outputs
- Supports 128 character 'Notes' page
- FCS for data integrity verification
- Micro D-37 pin connector interface

OVERVIEW

The APACK1 packetizer module collects source packets from all AL4000 data channel cards (via the AL4000 Multiplexer/Demultiplexer backplane) and multiplexes the packets into serial data streams that can be routed to an RF transmitter, recorder, or other digital data transmission system. An internal or external (user supplied) system clock must be selected and set to the desired data transfer rate. Serial data and clock are provided in three electrical formats: RS-422 differential, PECL differential, and TTL single-ended. All user inputs and outputs are accessible via the micro-miniature D-37 pin interface connector.

The 4003 APACK1 is used in conjunction with the Apogee Labs' 2025 Depack2 and 4012 ADPAK1 modules.

SPECIFICATIONS

GENERAL

- Single height module, 0.40" x 2.5" x 4.0" (4 Cubic Inches)
- Weight: 2.5 oz (71 grams)
- Power consumption: 3.77W
- Maximum slots scanned: 63

SERIAL OUTPUT SINGLE ENDED

- TTL Data and Clock
- 0.2 Mbps to 35 Mbps NRZ codes
- 0.2 Mbps to 15 Mbps biphase and DM codes

SERIAL OUTPUT DIFFERENTIAL

- RS-422 data and clock
- PECL data and clock

SERIAL FORMATS

- NRZ-L, M, S
- Bi-phase-L, M, S
- DM-M, S
- RNRZ-L (15 BITS)

EXTERNAL CLOCK

(ST) (Input to Module)

Electrical	*Type*	*Volt.*	*Termination*
RS-422	Differential	+5V	120Ω
TTL	Single-ended	+5V	N/A

COMPLEMENTARY HARDWARE

- 2025 Depack2
- 4012 ADPAK1