ATI **ACCURATE TECHNOLOGIES**

DLX
Compact Datalogger

ANALOGUE & THERMOCOUPLE INPUTS

SUPPORTS **CAN** AND **K-LINE** CHANNELS

IP65 RATED

MDF4 COMPATIBLE

ROBUST DESIGN

The DLX Datalogger offers a unique combination of functions that provide the features of a CAN interface, data acquisition module, and data logger all in one compact package. Communication channels include CAN and K-line that interface to ECUs or communicate with ATI data acquisition hardware.

The DLX includes eight analog channels, one sensor power output, four thermocouple channels, and four digital input/output channels. This combination ensures that ECU and instrumentation data are properly correlated for easy analysis. The DLX brings a robust and cost effective data logging and calibration interface to small engine development, where the unit's compact packaging and IP65 splash-proof rating make it ideal for space constrained applications. The files recorded by the DLX are saved to the removable SDHC memory card in ASAM MDF4 file format. The DLX fully follows the MDF4 file format version 4.1 and as a result, does not require a utility to decipher data and additional recorder information. For easy access to the MDF4 logs, the DLX also functions as a USB card reader when not actively logging.
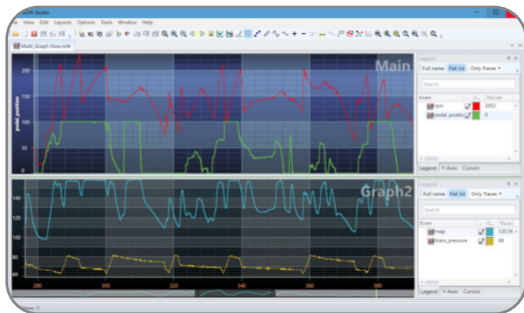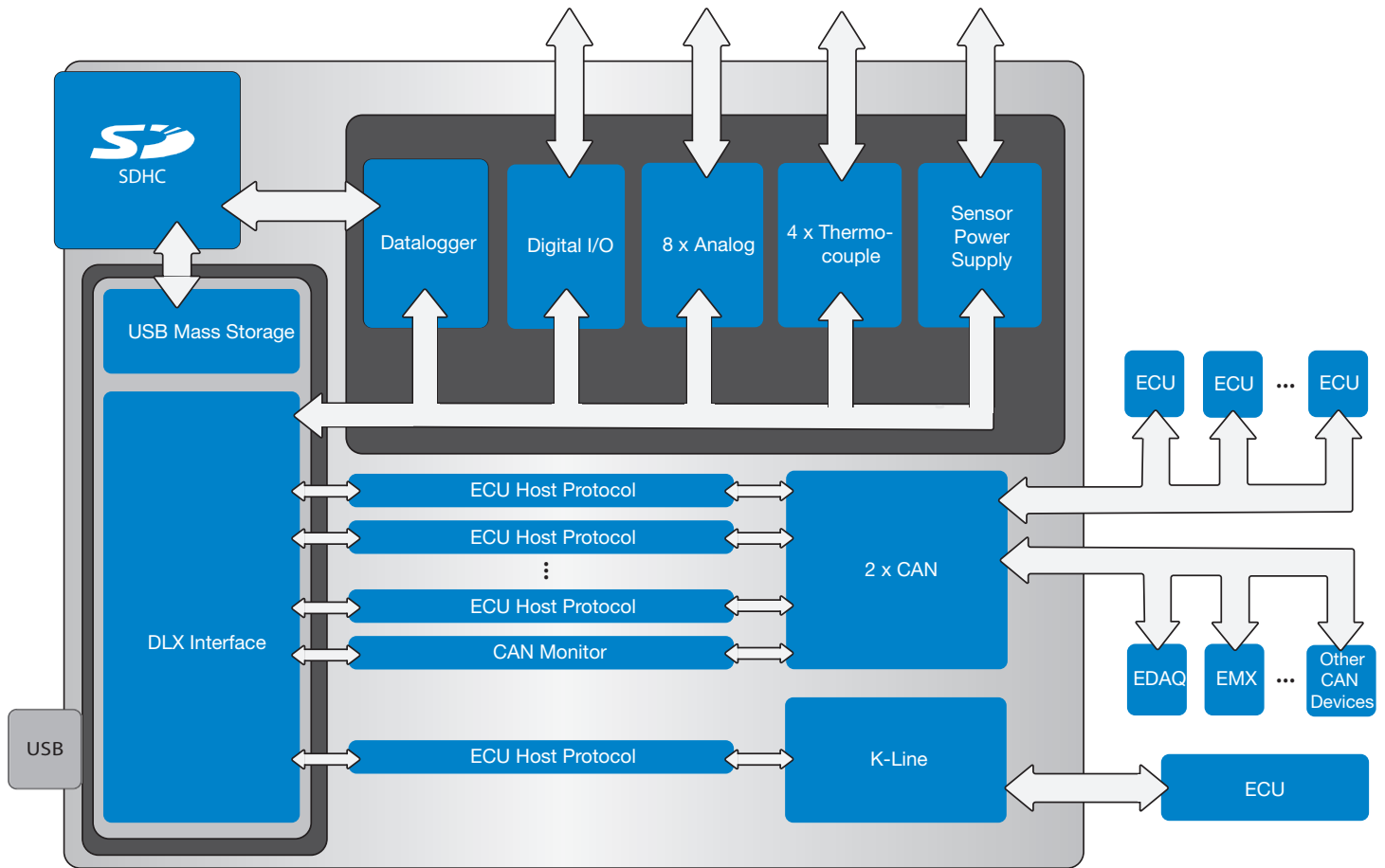
Features

- Four digital input/output channels
- Four +/-5 V differential analog inputs
- Four 0 to 20 V single-ended analog inputs
- Four K-type thermocouple input channels
- Two high speed CAN 2.0B channels
- One ISO 9141 compliant K-Line channel

Data is stored on the DLX in ASAM MDF V4 files that can be easily accessed by using the USB port or removing the SDHC card.

DATA ACQUISITION

ECU CALIBRATION

ECU RAPID PROTOTYPING

TEST CELL MEASUREMENT

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SDHC

Datalogger

Digital I/O

8 x Analog

4 x Thermo-couple

Sensor Power Supply

USB Mass Storage

ECU Host Protocol

ECU Host Protocol

ECU Host Protocol

CAN Monitor

DLX Interface

2 x CAN

ECU Host Protocol

K-Line

USB

ECU   ECU   ...   ECU

EDAQ   EMX   ...   Other CAN Devices

ECU

The VISION Data Analyzer was specifically developed to support MDF4 files that can accommodate extremely large data sets. View recordings and calibrations side by side at the same time in the Data Analyzer boosting productivity.

The DLX Datalogger is easily configured using ATI VISION Calibration and Data Acquisition software.

DLX Datalogger I/O Specifications

+/-5 V Analog Inputs	
Number of channels	(4) bipolar differential inputs
Input Range	±5V
ADC Resolution	16-bits
Max Sample Rate	2KHz per channel, fixed
Input Impedance	20MΩ
Input Protection	±36V
0-20 V Analog Inputs	
Number of channels	(4) unipolar single-ended inputs
Input Range	0 - 20V
ADC Resolution	16-bits
Max Sample Rate	2 KHz per channel, fixed
Input Impedance	1.14MΩ
Input Protection	±100V
Thermocouple Inputs	
Number of channels	(4) K-type channels
Measurement Range	-200°C to +1372°C / -328°F to 2501°F
Max Sample Rate	10Hz per channel
Input Protection	±36V
Digital Input/Output	
Number of channels	(4) unipolar single-ended inputs/outputs
Input Impedance	100KΩ
Input Switching Thresholds	LVTTL
Output States	Logic low, logic high, disabled (Hi-Z) or open drain (OD) on
Output Drive Capability: Logic Low Logic High OD On Resistance OD Continuous Load Current OD Load Supply Voltage Leakage Current at H-Z	0.6Vmax at IOL= 0.1mA 2.7Vmin at IOH= -0.1mA 0.8Ωmax at 0.5A 0.5Amax 36Vmax ±3.5uA
Min-Max Applied Voltage	-0.6 to 36V
Sensor Power Output	
Number of Channels	(1) adjustable output 5 - 15V (500mW max load)
Adjustment Step	10mV
Accuracy	±20mV

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DLX Datalogger General Specifications

Configuration	
Application Interface	VISION Calibration and Data Acquisition Software
Indicators	
Bi-color LEDs	(1) Power, (1) USB communication, (2) CAN communication, (1) K-Line communication, (1) Logger status
Memory	
Storage Type	User-removable SDHC memory card with sealed cover 32GB class 10 industrial grade card included
PC Communications	
USB	(1) USB 2.0 channel; supporting VISION and third party software via XCP
Network Communications	
CAN	(2) CAN 2.0B channels
K-Line	(1) ISO 9141 compliant K-Line channel
Operating Conditions	
Connectors	To PC: USB Mini-B I/O Signal (INST): DB26HD-M Power and Data (COM): DB15HD-M
Power Supply	5 to 36VDC
Temperature Range	-40°C to +85°C / -40°F to +185°F
Mechanical	
Construction	IP65 black high performance polyamide enclosure
Dimensions	120 x 64.5 x 23.3mm / 4.7 x 2.5 x 0.9in
Weight	145g / 5.1oz

DLX Datalogger Order Information

Product	
Part Numbers	**Description**
153-1100	DLX 1100 Series DataLogger

Company specific variants are available. Please contact your local ATI Sales Representative for details.

Accessories		
Part Numbers	**Description**	
150-0210-6FT	1.83m/6ft	Cable; DLX PWR/Comm Breakout; DB15 to Unterminated
150-0211-6FT	1.83m/6ft	Cable; DLX I/O Breakout; DB26 to Unterminated

ASAM

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DATA ACQUISITION ECU CALIBRATION ECU RAPID PROTOTYPING TEST CELL MEASUREMENT

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