



DATA SHEET

JANUARY 2006

PLTS – PHYSICAL LAYER TEST SYSTEM



The **Danlaw Physical Layer Test System (PLTS)** is a Physical Layer Test Tool and Stress Unit solution. The primary component of the PLTS is the **Physical Layer Test Tool** aimed to meet the specific requirements set forth in the following GMLAN specifications:

- **GMW3089** GMLAN SWCAN Physical & Data Link spec.
- **GMW3122** GMLAN DWCAN Physical Layer spec.

The secondary component of the PLTS is the **Stress Unit**, which is required to create GMLAN Network disturbances, including VBATT and Ground faults.

EASY TO USE SOFTWARE

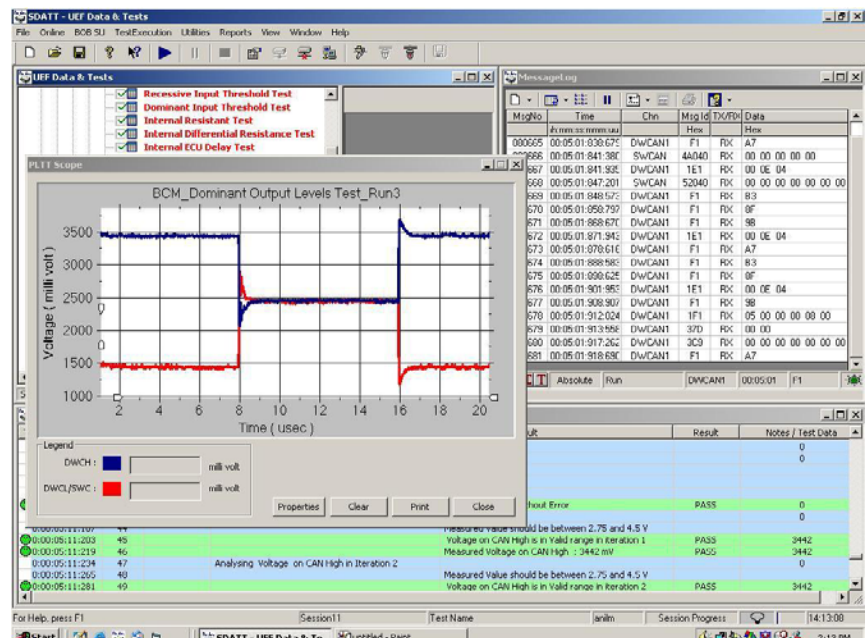
The PLTS Windows-based GUI software enables:

PLTT – Physical Layer Test Tool:

- Automated, On-line and Off-line ECU Physical Layer testing and analysis of:
 - **DWCAN**
 - Output Voltage Levels
 - Internal Resistance
 - Differential Resistance
 - Bus Signal Transition Time
 - Piece-wise Linear Waveform / Glitch Reject
 - System Level Bus Impedance
 - **SWCAN**
 - Device & Network Resistance
 - Recessive Bus Voltage Levels
 - Network Time Constant
 - Network & Device Capacitance
 - Fixed Wakeup Input High Voltage

SU – Stress Unit:

- GMLAN Network stress conditions:
 - CANH / CANL shorted to VBATT & GND
 - CANH shorted to CANL
 - SWCAN shorted to VBATT
 - SWCAN shorted to GND



23700 RESEARCH DRIVE
 FARMINGTON HILLS, MI 48335-2624
 PHONE: (248) 476-5571
 FAX: (248) 471-4485
<http://www.danlawinc.com>

OPERATING SPECIFICATIONS:

OPERATING VOLTAGE: 12 V DC to 26.5 V DC

POWER CONSUMPTION:
 NORMAL OPERATING MODE: < 250 mA @ 12VDC
 (w/o driven loads)

TEMPERATURE RANGE: 0 °C to +40 °C

HUMIDITY: 90% RH – non condensing

OPERATING POWER

Power and ground for the PLTS unit is supplied via 12VDC power supply.

PHYSICAL DIMENSIONS: 10 (W) x 8.25 (D) x 2.75 (H) in.

SOFTWARE FEATURES:

- Configure Communications
- Configurable optional SDATTBOB (Break Out Box) for full automation
- Configure Test Sessions
- Execute Test Sessions
- Create Faults & Measurement of Physical Parameters
- Generate and Print Reports
- Export Results to Excel Format

GUI FEATURES:

- Tree View – Test Session Creation
- Status View – Test Execution Display
- Message Log – GMLAN Traffic Display
- Scope Component – waveform display

HARDWARE SPECIFICATIONS:

Module Interface to PLTS: Via GMLAN or optional SDATT Break out Box

PC to PLTS INTERFACE: RS232 / USB

SDATT to PLTS INTERFACE: Control CAN Cable

SERIAL DATA INTERFACES:

DWCAN 2 channels

Transceiver Type: Phillips TJA1050

CAN Protocol: CAN 2.0B

CAN Controller: Star12

CAN Termination: Selectable (full, or half)

CAN Speed: 500 kbps

SWCAN 1 channel

Transceiver Type: Melexis TH8056

CAN Protocol: CAN 2.0B

CAN Controller: Star12

CAN Termination: N/A

CAN Speed: 33 kbps and 83 kbps (Selectable HIGH Speed Mode)

MINIMUM SOFTWARE REQUIREMENTS:

- Pentium 4 with 256 MB RAM
- MS Windows Operating System WIN2000
- Internet Explorer 6.0 or higher installed



23700 RESEARCH DRIVE
 FARMINGTON HILLS, MI 48335-2624
 PHONE: (248) 476-5571
 FAX: (248) 471-4485
<http://www.danlawinc.com>