TPMS-120
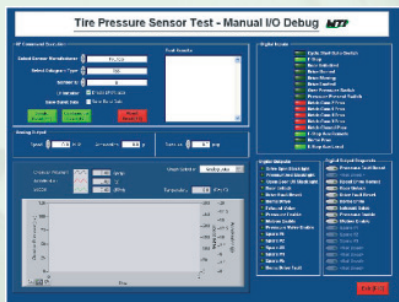## Tire Pressure Monitoring System

TPMS-120

Wineman Technology, Inc. is proud to offer our TPMS-120 series test system for tire pressure sensors. This state-of-the-art test system is designed to test tire pressure sensors for on vehicle applications. Designed for laboratory or audit applications, the TPMS-120 is a complete functional tester and provides the capability to test parts for temperature, sensor identification, battery status, RF output power, bit width, RF nominal frequency, and low frequency (LF) sensitivity all while subjecting the part to pressure (0 to 120+ psig) and rotational forces (0 to 20+g's). Additionally, the test system continuously monitors the part for temperature and rotation and monitors all system level safeties.

Because the system was designed using commercially available off the shelf hardware, scalability is ensured. All hardware utilized is modular and software configurable, thus the test system is able to be configured to perform numerous modulation/demodulation functions through software selection.

An intuitive user interface provides the operator with the ability to easily change the test configuration and set-up, monitor the status of all alarm conditions, and access to all test parameters and data. A test sequence editor is included to allow the operator to easily configure new test steps and test plans.

Due to the open architecture of the design and the selection of modular instruments, many capabilities provided in the system can be modified by WTI to meet the specific performance criteria of your component. These include higher pressures and g's as well as additional communication protocols.

Parameters

System Measurements

Speed / Acceleration (up to 20 g's); higher forces available[i]

Pressure Up to 140 PSI[i]   Accuracy: 0.1%

Temperature (-40°C to 600°C)   Accuracy: 1%

Signal Measurements

RF Frequency Measurements (from 9 kHz to 2.76 GHz at levels from +30dBm to less than -130dBm)

Bit Width

RF Power

LF Sensitivity

Sensor Measurements[i]

Pressure

Temperature

Speed / Acceleration

Motion Status

Battery Status

Sensor ID Check

Non-Volatile Memory

Diagnostic Checks

CRC (Cycle Redundancy Check)

Modulation and Demodulation Functions[ii]

Digital

    ASK (Amplitude Shift Keying)   Standard

    FSK (Frequency Shift Keying)   Standard

    PSK (Phase Shift Keying)[i]

    MSK (Minimum Shift Keying)[i]

    QAM (Quadrature Amplitude Modulation)[i]

    PAM (Pulse Amplitude Modulation)[i]

Analog

    AM (Amplitude Modulation)[i]

    FM (Frequency Modulation)[i]

    PM (Phase Modulation)[i]

Low Frequency waveform generation

Fixturing

Custom Nest Fixturing (to accommodate integrated valve stem and integrated wheel strap)

Data Logging

Number of Log Files: Based on hard drive space

File Formats: Tab delimited spreadsheet file; Can save with .xls extension and open in excel; can also open in notepad

Operator PC Interface

Network Connection: 10/100 Ethernet Interface

Operating System: MS Windows

Utilities: WTI Softcal Calibration Utility

Operator Screens: Test Sequence Editor, Data Viewer, Run Test, Administrator Management, Manual Debug

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[i] Contact Sales @ 989-771-3000 for further customizable options
[ii] NI Modulation Toolkit will be utilized