

Zing™ Test
1200 Series 1209

Honeywell



Modern Signal Processing Unit

Honeywell Aerospace
1944 East Sky Harbor Circle
Phoenix, AZ 85034
800-601-3099
International: 602-365-3099
www.honeywell.com

Honeywell

N61-0881-000-000
January 2009
© 2009 Honeywell International Inc.

Zing™ Test 1200 Series 1209 Modern Signal Processing Unit delivers



The most capable diagnostic system designed for installation in aircraft.

The 1209 is part of a growing portfolio of adaptable and interchangeable hardware and software machinery diagnostic products offered by Honeywell.

The PC-GBS analysis software is included with your purchase of the 1209. Available options include the 1047 iMDS Server, the iMDS Database Setup Tool and the iMDS Matlab® Development Toolbox.

The 1209 MSPU combines the latest in rugged electronics technology, including a Pentium processor, 128MB of onboard SDRAM and 96 MB of rugged flash memory. With over 20,000 flight-hours of field-proven experience, the 1209 delivers specific,

OEM-recommended maintenance actions to maintainers for rotor smoothing, engines and the entire drive train. Maintenance actions are displayed with a demonstrated easy-to-use and easy-to-understand Zing™ Ware Personal Computer – Ground-Based System (PC-GBS) that can dramatically increase aircraft availability and readiness.

Advanced engine diagnostics and automated engine performance calculations, such as Max Power Check (MPC) and Health Indicator Test (HIT), round out this feature rich system. The 1209 can connect to most commercial-off-the-shelf flight data recorders providing operators with crash survivable data storage.



Features

- Designed for aircraft integration
- Automated data acquisition using state-of-the-art regime recognition software
- Extensive use of open architecture hardware and software standards yield a low cost, easily upgradeable core system
- Automatically acquires data and continuously checks for pre-programmed exceedances
- Demonstrated advanced diagnostics for: rotor smoothing, absorbers (where applicable), drive train, turbine engines, gearboxes, MPC and HIT checks
- Open architecture software allows for maximum design re-use and future technology insertion
- Unique software setup and configuration control methodology allows both the airborne and ground station software to be updated remotely
- Companion web-based tools allow for remote software and diagnostic upgrades, configuration management of 1209 application software
- Provides operators and maintainers with advanced knowledge of aircraft health

Data Channels In/Out

The 1209 contains Honeywell's new, high-speed data acquisition card provides a 100 percent improvement in processing speed over earlier systems and a built in Mil-STD-1553 data bus interface capability. There is one card slot available for expansion. The 1209 has the following capabilities:

Channel Type	QTY	Comment
Accelerometer Channels	36	1.5 to 96 kHz Bandwidth 6 simultaneous channels acquired
Tachometer Channels	8	4 configured for magnetic interrupters 4 configured for general purpose digital inputs 2 simultaneous
Blade Tracker	2	IBT (Intelligent Blade Tracker) or optional US Army AVA UTD Universal Tracking Device
General Purpose Analog or Discrete	8	High accuracy analog channels capable of measuring both discrete and low frequency analog signals ±28 volts signal range.
Low level Analog Signals	8	Instrumentation amplifier interface that can measure low level signals from devices such as RTDs, thermocouples, pressure transducers

Specifications and product availability subject to change without notice.

Busses supported-Number and Type

The MSPU is based on the PC-104 bus standard. Many expansion cards, such as the ARINC 429 card are available off-the-shelf allowing the MSPU to be rapidly configured for specific aircraft needs. The basic MSPU utilizes two RS232/RS422/RS485 serial interfaces a 1553 interface and two Universal Serial Bus interfaces. The MSPU can be configured as a remote terminal.

Available Options

Cockpit Control Head, USB Memory Drive, PC-104 Expansion slot available (eg. ARINC 429).

Benefits

- Reduces maintenance burden
- Reduces unscheduled maintenance and total number of maintenance flights
- Reduces troubleshooting time
- Reduces operation & support costs
- Maintenance actions are correlated to specific health indicators and clearly communicated so maintenance action can be scheduled

Technical Specifications	
Dimensions	3" x 5.75" x 7.575"
Weight	4lbs 5oz
Temperature Range	-20C to +55C
Input Power	10-40VDC, MIL-STD-704D 300ms Power Loss Hold-Up
Power Consumption	<18 W
Interconnection	Standard Military Type connectors
Environmental Qualification	MIL-STD-810F & DO-160D
Built-in Self-Test	Integrated into PC-GBS software application
EMI/RFI Qualification	MIL-STD-461E & DO-160D
Card Slots	4 (1 empty for expansion)
Processor / SDRAM	Pentium / 128MB
DiskOnChip	96MB (stores over 500 flights)
Compatibility	RADS-AT compatibility, Army VibrationAnalyzer (AVA)
Communication Channels	(2) RS232/422/485, Ethernet, 1553, USB and optional 429