# **DataMetrics**<sup>™</sup>

Fully Mission Capable

# Corporate Capabilities යි Short Form Product Catalog

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## Spring 2007

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### COMPANY OVERVIEW

Data**Metrics**<sup>TM</sup> is a customer driven, application-specific solutions provider with core competency in the art and science of "ruggedization". Our primary focus is the design, testing, development, and manufacture of electronic products into industries/applications where the readily-available commercial or industrial grade product would be subject to conditions and requirements that would render it ineffective or impractical for the user.



While the specifics of "ruggedization" take many forms, from strict MIL-specs to varied industrial requirements, we can use this simple definition: Data**Metrics**<sup>™</sup> takes existing technology and applies "ruggedization" techniques to substantially increase the life and/or usability in adverse user-defined conditions. Products include commonly recognized devices such as LCD displays, computers, workstations, and printers, and lesser known systems such as VME chassis and various other electronic devices.

Data**Metrics**<sup>™</sup> was founded in California in 1962 as a high-tech defense application and consulting firm, where it became the industry leader in the development of high-speed, non-impact printers for tactical military applications. Moreover, Data**Metrics**<sup>™</sup> is one of the early pioneers in the ruggedization of Information Technology equipment to meet military specifications (MIL-Spec) where, today, it remains a worldwide leader. As the company grew, in 1998 it relocated current operations to a significantly larger campus setting in Orlando, Florida.

The company's 43,000 square-foot manufacturing facility includes thorough testing capabilities, a certified IPC-A-610 trainer, and production assemblers certified to J-STD-001 for solder and workmanship. Annual ESD training is mandatory for all employees. In addition, Data**Metrics™** Quality System, which is compliant to ISO 9001: 2000, has been audited by major defense contractors and government agencies.

#### PRODUCTS AND SERVICES

Data**Metrics**<sup>™</sup> specializes in the design, development, and production of application-specific, Tempest, MIL-Spec, and high-reliability Ruggedized Commercial off the Shelf (RCOTS<sup>™</sup>) products, including:

- Printers/Plotters
- Portable, Vehicle-mounted and Stationary PCs, Workstations and Embedded Computers
- Standard and Custom VME and CompactPCI Chassis and Enclosures
- Conduction and Convection-cooled ATR Chassis
- Custom Backplanes
- Flat Panel Displays

Additionally, DataMetrics<sup>™</sup> provides value-added services, such as:

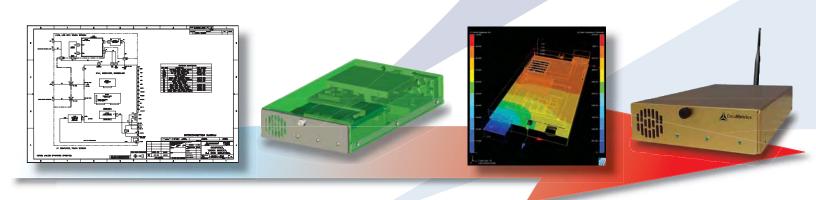
- In-House Environment Testing (thermal, shock, vibration, etc.)
- System Integration (bundling of products to create fully integrated solutions)
- Engineering Design Services (custom and semi-custom Ruggedized solutions)
- Build-to-Print Capabilities (cables, circuit card assemblies (CCA), housing, test equipment, and metal work)

#### MANUFACTURING, ENGINEERING AND TEST/VALIDATION

Data**Metrics™** acquired a 43,000 square foot facility in Orlando, Florida that serves as our worldwide headquarters as well as our central engineering design, test and manufacturing facility. In addition to our state-of-the-art products, we provide our customers with Engineering Services, System Integration and Test, Build-to-Print Assembly and Test, Printed Circuit Board (PCB) Assembly, Wire Harnesses, Cable Assembly, Mechanical Assembly, Environmental and Electrical Testing, and Design Validation and Testing. The company's manufacturing operations comply with many industry and military standards and disciplines. Additionally, 100 percent of products manufactured are subjected to shock, vibration and environmental stress screening (ESS); inspection processes conform to the requirements of MIL-I-45208.

To meet the growing needs of the company's high-reliability customer base, Data**Metrics**<sup>™</sup> has an IPC certified solder instructor on staff. To further our in-house PCB assembly capability, our Electrostatic Discharge (ESD) program meets MIL-STD-1686C. Moreover, in-house testing capabilities meet MIL-STD-810F for environmental testing. These military standards are tailored to commercial use as well to ensure proposed concepts and systems are valid and functional in intended operational environments.

Today, the company's official engineering CAD tools include **SolidWorks**<sup>™</sup> for mechanical modeling; **AutoCAD**® for producing manufacturing documentation included in manufacturing process instructions (MPI) as well as for cable harness drawings and wiring diagrams; **CFDesign**<sup>™</sup> for computational flow dynamics, including thermal and air flow analysis; and **Altium Designer**<sup>™</sup> for OrCAD-compatible schematic capture, printed circuit board layout and circuit simulation.







For each new design, Data**Metrics™** validates the environmental integrity through extensive in-house gualification testing. Testing is performed in accordance with DataMetrics', industry/MIL, or customer-defined requirements for:

- Vibration and Shock
- Acoustic Noise
- Temperature Extremes, Humidity and Salt Fog
- Electromagnetic Compatibility
- Altitude
- Fungus, Sand and Dust
- Environmental Stress Screening (ESS)

#### ISO 9001:2000 CERTIFIED

DataMetrics<sup>™</sup>, received the 3rd party ISO certification in July 2006. In addition to ISO certification, Data Metrics™ holds the following certifications:

- ESD (Electrostatic Discharge) Facility Compliant to MIL-STD-1686.
- Calibration Program Compliant to ISO.
- Certified Compliant for Quality System, by Northrop Grumman of Melbourne, Fla.
- Air Agency Certificate for Manufacturer's Maintenance Facility, by the FAA, issued 10/21/1998.
- Environmental Testing Facility Compliant to MIL-STD-810 for vibration and temperature.
- · Certified Soldering instructor on staff certified by IPC (Institute for Interconnecting and Packaging Electronics Circuits).

#### **FAA CERTIFIED**

Data Metrics<sup>™</sup> is a FAA Certified Repair Station which operates under the FAR 145 set of guidelines. The FAA mandates specific regulations, rules, procedures, and repair station manuals under FAR 145 in order to keep DataMetrics™ products safe and functioning correctly in the field of avionics. In addition to the FAA certification, DataMetrics™ is a member of the Aircraft Electronics Association (AEA).

Building on its expertise, Data**Metrics**<sup>™</sup> has developed and manufactured high-performance, high-reliability electronic equipment for aerospace, defense, industrial, and commercial markets. For example, the DataMetrics™ Model 4680 Half-Page Cockpit Printer, approved by the Federal Aviation Administration, is used by commercial airlines around the world, including American Airlines, Japan Airlines, KLM and Thai Airways as a Miltope Model TP-4085 and TP-4185 dropin replacement.

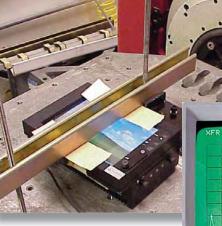
### **MILITARY PROGRAMS**

DataMetrics<sup>™</sup> has been a partner in the development of many military programs, including AEGIS, ARF, FALCON, FIREFINDER, JSTARS, MILSTAR, P3C AIP, PATRIOT, TCCCS-IRIS, SSN 774, OASIS, and BLO-10. As a result of these partnerships, many of our products are deployed in numerous active military programs. The following programs are currently using DataMetrics™ rugged equipment:

> MILSTAR ......US Air Force – Rugged flat panel monitors and printers MILSTAR (F.E. Terminal) ...... US Air Force/Raytheon – Rugged HCI printers MILSTAR (Command Post Terminal).....US Air Force/Raytheon – Rugged HCI printers

W/SI RF

AFSATCOM (SMR)	US Air Force ESD – Rugged Printers
Minuteman (Launch Console)	US Air Force/Boeing – Rugged Printers
CRT replacement	RNLN (Royal Netherlands Navy) – Rugged Monitors
Patriot	US Army/Raytheon – Printers
OASIS	Raytheon/Lockheed Martin – VME, Integration
US-A1	KHI – Rugged PC, Monitor, Keyboard/Trackball
Crusader	DSP Con – VME
CHS-2	
Tacfire	Northrop Grumman/Litton Data Systems – Printers
FireFinder	Raytheon – Printers and VME ATR
ARF (Airborne Relay Facility)	Lockheed Martin/Owego – VME (airborne)
AN/BLQ-10	Lockheed Martin – VME Chassis
AEGIS	Lockheed Martin/Navy - Naval Printers



### COMPANY OVERVIEW







### **P**RINTERS

	Appli	ication Specific Pri	inters	Airline Printers	
Nonvers	Model 1600 M	Model 2180	Model 8000	Model 4080	Model 4680
New and the March 2001 New and the March 2001 Lase Nake Perev perevision Extension of the March 200 Lase Nake Perevision Statement of the March 200 Perevision of the Marc					FAA Certified
Print Head Technology	Thermal	Monochromatic Laser	Thermal	Thermal	Thermal
Temperature - Operating	-30°C to 55°C	-17°C to 48°C	-10°C to 63°C	-40°C to 50°C	-15°C to 50°C
Temperature - Storage	-54°C to 71°C	-32°C to 66°C	-70°C to 85°C (Industrial) -35°C to 70°C (Military)	-50°C to 63°C	-55°C to 71°C
Humidity	0 - 95%, condensing 0 - 95%, 30°C - 60°C, non-condensing	10 to 95%, non- condensing	5 - 95%, non-condensing	10 - 95% non- condensing	0 - 95%, non-condensing
Vibration	MIL-STD-167-1, Type 1	MIL-STD-810E	2 G at 5 - 2000Hz per MIL-STD-810D	MIL-STD-810D, Category 9 (ground mobile)	2 G per MIL-STD-810B
Shock - Operating	MIL-E-901C, Grade A	MIL-STD-810E	20 G 11 ms per MIL-STD-810D	MIL-STD-810D	6 G
Shock - Storage	MIL-E-901C, Grade A	MIL-STD-810E	MIL-STD-810D	MIL-STD-810D	15 G each axis
Altitude - Operating	Contact Data <b>Metrics</b>	15,000 ft. MIL-STD-810E	-100 - 15,000 ft.	-1,000 - 15,000 ft.	-1,000 - 40,000 ft.
Altitude - Storage	Contact Data <b>Metrics</b>	40,000 ft. MIL-STD-810E	-100 - 40,000 ft.	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
EMI/EMC	MIL-STD-461C	MIL-STD-461C MIL-STD-462	Contact Data <b>Metrics</b>	MIL-STD-461C	EMI: RTCA DO-160A Noise: NC-40, MIL-STD-1472
Sand, Dust, Rain, Fungus, and Salt Atmosphere	Fungus - MIL-STD-454 Salt - Only non-corrosive materials are used	MIL-STD-810E Method 510.3/506.3/508.4	MIL-STD-810D Method 510/508	MIL-STD-810D Method 510.2/506.2/509.2	Non-nutrient to fungus growth
Explosive Atmosphere	Will not cause ignition of explosive gaseous atmosphere	Contact Data <b>Metrics</b>	MIL-STD-810D, Method 511	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
Resolution	153 - 200 dpi	600 X 600 dpi	300 X 300 dpi	200 dpi	152 X 152 dpi
Print Speed	5000 dots per line/minute 1100 lines per minute	12 ppm	6000 lines per minute	600 lines per minute	160 lines per minute
Media	Thermal Roll Paper Thermal Folded Stack Paper	Letter, Legal, Executive, A4, 3.5" x 6.3" minimum, 8.5" x 14" maximum	Full Page Thermal Roll Paper	1/2 Page Thermal Roll Paper	100 ft. continuous roll, 4.375″ wide
Memory	Contact Data <b>Metrics</b>	32MB Standard Up to 128MB Optional	Contact Data <b>Metrics</b>	8k bytes (text)	Contact DataMetrics
Power Input - Standard	115 - 230 Vac 47 - 440Hz	110 - 220 Vac 50 - 60 Hz	115 Vac 47 - 440Hz	18 - 32 Vdc 20 - 25 Vdc (battery)	115 Vac, 400Hz ± 10% Standard aircraft power
Power Input - Optional	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	28 Vdc	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
Power Consumption	Under 200W	+/- 10% <240W	AC: <95W Average DC: <100W Average	20W DC Average 5W DC Standby	80W Average 20W Idle
Interface - Standard	RS-232 or RS-433, 8 bit Parallel, NTDS-FAST, NTDS-SLOW	RS-232C Serial, 8-bit Centronics Parallel	RS-232C, RS-422, 8-bit Centronics Parallel	Serial, RS-232-C	ARINC 597
Interface - Optional	Ethernet	Contact Data <b>Metrics</b>	Ethernet	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
Physical Dimensions	7.8″ H x14.6″ W x17″ D	17.5″ H x13″ W x20″ D	7.12″ H x12.5″ W x9″ D	5″ H x7.1″ W x6.8″ D	6″ H x5.76″ W x8.36″ D
Weight	48 lbs.	60 lbs.	18 lbs.	9 lbs. without paper 12 lbs. Tempest	8.5 lbs.
Notes	Accepts thermal roll paper standard and thermal folded stack paper as an option.	Specifically designed to be adaptable to airborne, shipboard, mobile, and sheltered applications.	This aluminum tactical printer features a rugged design, compact size, lightweight, outputs full page printouts and is available with varying degrees of ruggedness.	Perfect for aircraft printing and ground mobile applications. Can be equipped with a carrying handle and can be suited to meet Tempest specifications.	Drop-in replacement for Miltope Model TP-4085/4185 printers. FAA/PMA certified on the following aircraft: B-727, B-737, B-747, B-767, MD-80, MD-11, DC10, and DC9.



### **P**RINTERS

RCOTS Printers					
Model 3000	Model 3100	Model 3200	Model 3300	Model 3315	Model 3402
*Formerly Model 2200*	*Formerly Model 1960*	NEW	*Formerly Model 1980*	NEW!	NEW!
Dot Matrix	Color Inkjet	Thermal	Color Laser	Color Laser	Monochromatic Laser
-25°C to 55°C	-20°C to 50°C	-10°C to 50°C	0°C to 45°C	-5°C to 40°C	-10°C to 50°C
-44°C to 70°C	-40°C to 85°C	-40°C to 60°C	-40°C to 71°C	-20°C to 50°C	-30°C to 60°C
10 - 95%, non- condensing	10 - 95%, RH non- condensing	Contact Data <b>Metrics</b>	5 - 95% non-condensing	10 - 90%, non- condensing	10 - 90%, non- condensing
5 G Sinusoidal and Random per MIL-STD-810E	0.01 G²/Hz at 10-2000Hz (4.5 GRMS)	TEA/EIA 603, Paragraph 3.3.4	1.1 G Sinusoidal and Random	2 G Sinusoidal and Random	2 G Sinusoidal and Random per MIL-STD-810E
15 G per MIL-STD-810E	Contact DataMetrics	20 G, sine wave @ 11 ms	30 G, 11 ms	10 G, 11 ms	15 G per MIL-STD-810E
20 G per MIL-STD-810E	20 G/11 ms	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	20 G, 9 ms	20 G per MIL-STD-810E
15,000 ft.	15,000 ft.	12,000 ft.	-1,500 - 15,000 ft.	15,000 ft.	15,000 ft.
50,000 ft.	40,000 ft.	Contact Data <b>Metrics</b>	-1,500 - 40,000 ft.	50,000 ft.	50,000 ft.
MIL-STD-461C, CE01, CE03, CS01, CS02, CS06, RE02, RS02, RS03	MIL-STD-461C, CE03, CS01, CS02, CS06, RE02, RS02, RS03	FCC Part 15, Class A	FCC Part 15, Class B	FCC Title 47 CFR, Part 15, Class B	FCC part 15, Class B MIL-STD-461C
Fungus - MIL-STD-810E, Method 508.4	Only non corrosive materials are used	IP54	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>
Bit Image - 360 X 360 dpi	Black - 1200 X 1200 dpi Color - 4800 X 1200 dpi	Contact Data <b>Metrics</b>	1200 X 600 dpi Photograph Quality	Black - 1200 X 1200 dpi Color - 600 X 600 dpi	Black - 1200 X 1200 dpi
Draft - 240 CPS Letter Quality - 83 CPS	Black - 36 ppm Color - 27 ppm	1 inch/second	Black - 24 ppm Color - 16 ppm	Black - 12 ppm Color - 10 ppm	Black - 27 ppm
Internal fan fold paper tray: 200 sheets A and A4	Sheet fed: 150 sheets Letter, Legal, A4, A5, executive	Full Page Thermal Roll Paper	Sheet fed: 300 Executive, Letter, Legal, A4, A5, A6	Sheet fed: 250 Sheets 3" x 5" to 8.5" x 14" Two-Sided Printing	Sheet fed: 250 Sheets 3" x 5" to 8.5" x 14" Two-Sided Printing
14K Standard 32K Optional	32MB built in RAM	Contact Data <b>Metrics</b>	64MB Standard Up to 320 MB Optional	64MB Standard Up to 320MB Optional	32MB Standard Up to 288MB Optional
20 - 32 Vdc per MIL-STD-1275A	96 - 246 Vac 50/60/400Hz	9 - 32 Vdc	90 - 132 Vac 47 - 63/440 Hz	110 - 127 Vac, 60 Hz	110 - 124 Vac/50-60 Hz 200 - 240 Vac/50-60 Hz
95 - 240 Vac 47 - 440 Hz (autoranging)	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	Contact Data <b>Metrics</b>	200 - 240 Vac, 50 Hz Dual Voltage Available	Switchable Between Voltages
45W Average, 5W Standby, 160W Max	60W Max while printing	Contact Data <b>Metrics</b>	420W Average, 45W Standby, 950W Max	18W Standby, 255W Printing	350W Printing, 9W Standby, 0.4W Off
IEEE 1284 Centronics Parallel	USB 2.0 and 10/100 BaseT Ethernet ports	USB 2.0 and IEEE 1284 (Centronics Compatible)	IEEE 1284 Centronics Parallel, 10/100 BaseT Ethernet, USB 2.0	USB 2.0, 10/100 Base-TX Ethernet	USB 2.0, 10/100 BaseT Ethernet
RS-232-C Serial Ethernet 10base2 or 10baseT	Ethernet 10base2 or IEEE 1284 Centronics Parallel port	Contact Data <b>Metrics</b>	10base2 Ethernet	Contact Data <b>Metrics</b>	10Base2 Ethernet, Parallel IEEE 1284
9.8″ H x17.5″ W x15.9″ D	8.7″ H x17.3″ W x15.5″ D	6.8″ H x13.26″ W x5.9″ D	15″ H x19″ W x24.2″ D	17.5″ H x17.7″ W x20″ D	10.5″ H x16.9″ W x21″ D
32 lbs. with Vehicle Mount Adapter	27 lbs.	7 lbs. 12 lbs. with paper	80 lbs.	54 lbs. 61 lbs. Dual Voltage	40 lbs. Tabletop 45 lbs. Rackmount
Perfect for vehicle transport; designed to withstand high shock/vibration and suited to mount on HMMWV and M577 Tracked Vehicles.	"Flush Front" version also available with foldable handles, flat power switch, and a completely flat front door.	Specifically designed for vehicle applications. Horizontal or vertical mounting with shock mounts, rubber "feet", or quick release adapter mounting hardware.	New generation industrial off the shelf engine. The printer is a digital color printer using LED technology and 400 MHz PowerPC processor for superior printing.	Model 3310 also available at a lower price point with a reduced feature set. HP PCL 6 and PostScript® 3™ emulation and 80 scalable TrueType fonts.	Designed as a Drop-In Replacement for the Data <b>Metrics</b> Models 3400 and 3401.



### ATR CHASSIS

#### Model 8211 - Full Long 9 Slot ATR Chassis



#### \*Formerly Model 6600\*

Environmental Characteristics			
Temperature - Operating	-32°C to 65°C		
Temperature - Storage	-40°C to 70°C		
Humidity	10 - 95%, condensing		
Vibration	5 G 15 - 2000Hz Sinusoidal and Random per MIL-STD-810E		
Shock - Operating	15 G per MIL-STD-810E		
Shock - Storage	20 G per MIL-STD-810E		
Altitude - Operating	15,000 ft.		
Altitude - Storage	50,000 ft.		
EMI/EMC	MIL-STD-461D, CE01, CE03, CS01, CS02, CS06, RE02, RS02, RS03		
ESD	MIL-STD-1686A		
Explosive Atmosphere	MIL-STD-810E, Method 511.3		

Electrical Characteristics				
Power Input - Standard	Three Phase WYE 115 Vac, 47 - 440Hz			
Power Input - Optional	Contact DataMetrics			
Power Outputs	± 5 Vdc @ 30A ± 12 Vdc @ 6.2A			
Voltage Holdup	10ms			
Power Supply	150W Max			

Performance Characteristics			
Backplane - Standard	9 Slot VME 64X or 8 Slot CPCI		
Cooling	Hybrid - Forced air and conduction cooling		
I/O Panels	Front Panel I/O Connections		
Peripheral Bay	Optional embedded shock-isolated HDD mounting.		
Accessories	Environmental monitor/controller (standard)		

Physical Characteristics			
Physical Dimensions	7.8″ H x10″W x17″D		
Weight	29 lbs. Aluminum Chassis		

#### **OVERVIEW**

The Data**Metrics**<sup>™</sup> Model 8211 Rugged ATR Chassis is a full long 9 slot chassis which combines environmental and mechanical engineering technology with computer technology to produce a chassis suitable for military and industrial applications. The Model 8211 comes standard with



a 9 slot VME 64X or 8 slot CPCI backplane, 150W power supply, front panel I/O connections, and is designed to meet and exceed multiple MIL standards. These conduction/convection cooled chassis are custom configurable with many backplane, power supply, I/O, and other options available. For additional component security and functionally, the Envirostat 2.0 System monitor can be added to prevent unwanted departures from specified operating temperatures, voltages, fan speed, etc. *Consult DataMetrics*<sup>TM</sup> for *Custom Configurations*!

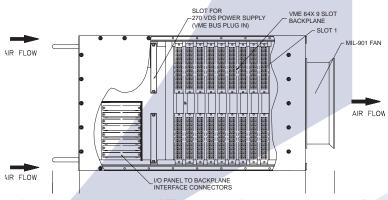
#### BACKPLANES

The Model 8211 comes standard with a 9 Slot VME64x backplane. Other backplanes architectures are available such as:

- VME and VME 64X
- VITA 31, VITA 41, and VITA 46
- CompactPCI 2.1 and 2.16
- Customer-specific architectures.

#### HYBRID COOLING

The Model 8211 uses both conduction and convection cooling technologies in order to achieve the greatest level of heat dissipation. Side mounted fins draw heat away from components while the large MIL-901 fan pulls air through the chassis and out the rear.



New Conduction Cooled ATR Chassis available through out 2007!

11 standard sizes and multiple backplanes to choose from. Completely sealed design with all the customization available.

ATR Size	Height	Width	Depth	Model Number
Dwarf	3.4′	2.25″	12.5″	8001
1/4 Short	7.6″	2.25″	12.5″	8002
1/4 Long	7.6″	2.25″	19.5″	8003
3/8 Short	7.6″	3.55″	12.5″	8004
3/8 Long	7.6″	3.55″	19.5″	8005
1/2 Short	7.6″	4.85″	12.5″	8006
1/2 Long	7.6″	4.85″	19.5″	8007
3/4 Short	7.6″	7.5″	12.5″	8008
3/4 Long	7.6″	7.5″	19.5″	8009
Full Short	7.6″	10.1″	12.5″	8010
Full Long	7.6″	10.1″	19.5″	8011



### **RCOTS** CHASSIS

#### Model 7107 - 7U 18 Slot VME RCOTS Chassis



\*Formerly Model 6000\*

Performance Characteristics			
Backplane (Standard)	18 Slot VME		
Cooling	3 ea 130CFM Fans		
Peripheral Bay	Configurable with up to 8 peripherals, Hot swappable hard drives. Rear panel for P2 & Face Plate Connections.		
Accessories	Environmental monitor/ controller (standard)		

Physical Characteristics			
Dimensions	7U 12.25″ H x19″ W x24″ D		
Weight	75 lbs. Aluminum Chassis		

Environmental Characteristics			
Temp - Operating	-25°C to 55°C		
Temp - Storage	-40°C to 70°C		
Humidity	10 - 95%, non-condensing		
Vibration	5 G Sinusoidal and Random per MIL-STD-810E		
Shock - Operating	15 G per MIL-STD-810E		
Shock - Storage	20 G per MIL-STD-810E		
Altitude - Operating	15,000 ft.		
Altitude - Storage	50,000 ft.		
EMI/EMC	MIL-STD-461E, CE101, CE102, CS101, CS114, CS116, RE102, RS101, RS103, RE101		
ESD	MIL-STD-1686A		

Electrical Characteristics				
Power Input	Three Phase WYE; 95 - 125 Vac, 47 - 440Hz			
Power Input - Optional	Single Phase Autoranging 95 - 240 Vac, 47 - 440Hz +18 - 32 Vdc (optional)			
Power Outputs	+5 Vdc @ 70A; +12 Vdc @ 20A; - 12 Vdc @ 10A			
Voltage Holdup	50ms for 650W Load per MIL-STD-704A			
Power Supply	1000W Max AC; 600W Max DC			

DataMetrics<sup>™</sup> rugged chassis are designed to meet and exceed military, industrial, or customer defined specifications. System integration can be accomplished by adding software, I/O (digital and analog), single board computers, or other functionality. The Model 7107 comes with a fully customizable 18 slot VME backplane and can be configured with up to 8 peripherals. This chassis supports popular backplanes such as VME, VME 64X, VITA 31, VITA 41, VITA 46, CompactPCI 2.1, CompactPCI 2.16, and more. The power supplies used are fully configurable to meet all output voltages and current requirements and provide optional voltage margining for circuit development and system characterization. The optional Ethernet based system monitor can track chassis temperature, input voltages, fan speed, and more.

The Model 7107 is a proven product being used in multiple military programs. Most notably, this chassis is being used by Lockheed Martin/ Owego for the Airborne Relay Facility (ARF), by Raytheon and Lockheed Martin for the OASIS and Mini-Oasis projects, and by the U.S. Navy on there Guided Missile Destroyers (AEGIS).

Contact DataMetrics<sup>™</sup> to design your custom chassis today!



#### Model 7204 - 4U 7 Slot Multi-Architecture Server Chassis



*Formerly Model 7000-RC
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Performance Characteristics			
Backplane - Standard	PC Motherboard or VME, VME 64x, CPCI, VITA, or Custom Backplane		
Cooling	1 ea 130CFM Fan with 1 additional power supply fan		
Peripheral Bay	Customer definable configurations or complete custom-design chassis available.		
Accessories	Environmental monitor/ controller (optional)		

Physical Characteristics				
Physical Dimensions 4U 7" H x16.91"W x20"D				
Weight	40 lbs.			

Environmental Characteristics				
Temp - Operating	-10°C to 50°C			
Temp - Storage	-40°C to 70°C			
Humidity	10 - 98%, non- condensing			
Vibration	MIL-STD-810F Method 514.5, Procedure I			
Shock	MIL-STD-810F Method 516.5, Procedure I & VI			
Altitude - Operating	-1000 ft15,000 ft.			
Altitude - Storage	-1000 ft 40,000 ft.			
EMI/EMC	MIL-STD-461E, CE101, CE102, CS101, CS114, RE101, RE102, RS102, RS103			
ESD	MIL-STD-1686A			

Electrical Characteristics				
Power Input - Standard	95 - 250 Vac 47 - 440Hz			
Power Input - Optional	28 Vdc			
Power Outputs	Contact Data Metrics			
Voltage Holdup	50ms for 650W Load MIL-STD-704A			
Power Supply	400W Max 150W Consumption nominal			

Model 7204 is a new member of DataMetrics<sup>™</sup> lineup of rack mountable Rugged Commericalproducts. Off-The-Shelf (RCOTS) chassis Originally designed as a dual processor server chassis deployed in the Iraq conflict, the Model 7204 meets essential high-reliability MIL standards, such as 810, 461 and 1686. The Model 7204 resilience comes from its unique "chassis-in-chassis" design with a shock isolated inner chassis. Moreover, it is highly resistant to airborne dust and sand through easily-accessed air filters.

As with many of DataMetrics<sup>™</sup> chassis, Model 7204 is available in various standard configurations, notably passive backplanes and active motherboards. Specific backplane architectures that can be ordered include VME, VME64x, VITA 31/41/46, CompactPCI 2.1 or 2.16, and PICMG PCI. Popular motherboard form-factors that Model 7204 accommodates include ATX and mini-ATX. The fully customizable Model 7204 also accommodates fixed and removable drive configurations.

With its aggressive push-pull cooling system, various single and multi-core CPU types will operate without issue when exposed to an operating temperature range of -10°C to +50°C.





# COTS CHASSIS

#### Model 7008 - 8U 21 Slot VME 64X COTS Chassis



Coming Soon - Q1'07

Look for this unit to be introduced in 9U and 10U formats, with and without drive modules.

Environmental Characteristics					
Temperature	Temperature Operating: -10°C to 55°C Storage: -20°C to 8				
Humidity	<95% non-c	ondensing			
Vibration	Random: 0.5 ( Sinusoidal: 0.5				
Shock	Operating: 1 G	Storage: 2 G			
Altitude	Operating: 10,000 ft.	Storage: 40,000 ft.			
EMI/EMC	MIL-STD-461E, CE102, CS1	01/114/116, RE102/103			
ESD	Contact Da	ata <b>Metrics</b>			

Electrical Characteristics				
Power Input - Standard	85 - 264 Vac; 47 - 440Hz			
Power Input - Optional	120 - 350 Vdc			
Power Outputs	+ 5 V @ 150A ± 12V @ 17A ± V1 + 3.3V @ 60A VPC ± V2			
Voltage Holdup	Contact DataMetrics			
Power Supply	400W - 1500W Max			

Performance Characteristics			
Backplane - Standard	21 Slot VME 64X		
Cooling	Front removable LRU fan tray with 3 ea 120CFM 12Vdc fans		
Accessories	Environmental monitor/controller (optional) Peripheral Bay (optional)		

Physical Characteristics		
Physical Dimensions	8U 13.97″ H x19″ W x16.4″ D	
Weight	36 lbs.	

#### Model 1200 Envirostat 2.0 - System Monitor and Control



System Integration

For use in the COTS Chassis, RCOTS Chassis, Server Chassis, and ATR Chassis.

- Constant monitoring and control of system voltages, fan speed and operation, and temperature
- Onboard Ethernet 10/100, RS-232, and USB provide local/ remote communication
- True HTML front end
- Alarms for email, multiple addresses, SMS, and more
- Programmable IP address by direct connection
- Onboard I<sup>2</sup>C bus input/output channel for external devices
- Security including password and cookie protection
- Flash programmable for upgrades via a secure web site

#### INTRODUCTION

The 8U Model 7008 COTS chassis has several unique features that distinguish itself from the competition. This rack mount or table top configurable 8U chassis has a unique front air inlet feature that allows access to the field replaceable fan tray. This model also provides front access to all



21ea 6U backplane slots and up to 15ea 6U rear transition modules. The chassis accommodates 3U and 6U x 160mm or 220mm plug-in boards and 6U x 80mm rear transition modules (100mm or 120mm support can be ordered). This chassis is designed to be able to accept multiple types of standard backplane architectures; custom backplanes can be accommodated as well. The power supply used is fully configurable to meet all output voltages and current requirements and provides optional voltage margining for circuit development and system characterization. *Consult DataMetrics*<sup>™</sup> for *Custom Configurations*!

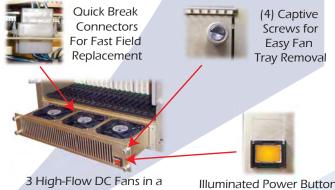
#### BACKPLANES

The Model 7008 comes standard with a 21 Slot VME64x backplane. Other backplanes architectures are available such as:

- VME and VME 64X
- VITA 31, VITA 41, and VITA 46
- CompactPCI 2.1 and 2.16
- Customer-specific architectures.

#### FIELD REPLACEABLE FAN TRAY

Sub-2 minute replacement or maintenance of the unique field replaceable fan tray can be accomplished in a few easy steps. Power-Off the unit using the illuminated front power button, loosen the (4) captive screws, pull out fan tray, and disconnect the wires using the quick-break connectors.



Field Replaceable Fan Tray

Illuminated Power Button With Hinged Cover

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	Fan 0	O egge	Relay	-	+54	<b>CONTROL</b>	
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	Fan 2	Off	PSU 1 PSU 2		+12V -12V	ALC: NO.	
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	Fan 9	007				erature	
	Fan 10	Off	MAC Address		Sensor	Reading	
	Fan 11	Off	Local IP		Sensor 0	Common East	
	Fan 12	Off	Bernate 1P		Sensor 1	DEST	
	Fan 13	Off			Sensor 2	Continue Fail	
	Fan 14	0#	Version 1.81	- 3 Jun 2007	Sensor 3	Commit E-avi	



#### Model 9100 - Embedded Computer



The Model 9100 features a powerful Intel® Pentium® M 1.8 GHz or Core<sup>TM</sup>2 Duo processor, 1 GB DDR SDRAM, 60 GB hard drive, wireless internet capabilities, and more. The computers diminutive footprint of  $5.75^{"}$  W x  $1.75^{"}$  H x  $9.85^{"}$  D makes it ideal for installations where space is premium. Additional value added features include multiple ruggedized circular, EMI-compliant connectors, flanges allowing vertical and horizontal mounting, and a protective face plate for front panel buttons and connectors.

Additional features include dual USB 2.0 ports, dual RS-232 ports, WiFi antenna SMA connector, 10/100 BaseT Ethernet interfaces, high-performance 3D graphics accelerated chipset, and compatibility with a variety of operating systems including various versions of Linux and Microsoft® Windows®.



This model is suitable as an Airborne Flight Server and can support multiple simultaneous Remote Flight Displays. The mentioned features make it perfect as an Electronic Flight Bag Computer (EFB).

- Powerful Intel<sup>®</sup> Pentium<sup>®</sup> M, Core<sup>™</sup> Solo, and Core<sup>™</sup>2 Duo Processors Available
- Small Footprint for Space-Challenged Applications
- Compatible with a Variety of Operating Systems
- Up to Eleven I/O Ports
- Lower Power Utilization
- Wireless Internet Capabilities
- Designed to Meet DO-160E EMI/EMC
- Supports Multiple Simultaneous Remote Displays
- Internal GPS Available as an Option
- Customer Definable Configurations

#### NBAA 2006 Annual Meeting & Convention

The Model 9100 debuted as the smallest and highest performing Electronic Flight Bag (EFB) Computer to date as one of the core components of the Paperless Cockpit FlightServ C2 Airborne Information Server.

#### Model 9920 STEALTH - 1U Rack Mount Display/Keyboard Integrated KVM



Coming Soon - April '07

The *Intrinsically Safe* Model 9920 *STEALTH* will be available for oil/gas exploration and deep mining operations.

#### The Model 9920 STEALTH is a rugged 1.75" (1U) high Rack Mount display/keyboard/trackball. With such a small height, this rack mount KVM is ideally suited for applications that require an industrial or military grade display/keyboard in a minimum amount of rack space. In addition, the STEALTH enables you to control multiple computers from a single display/ keyboard via the integrated KVM ports allowing you to save even more rack space.

The Model 9920 *STEALTH* is available in many configurations. Optional features include touchscreen, high bright, EMI, anit-fogging, and night vision for the 15", 17", and 19" displays. Multiple keyboard/trackball configurations such as key count, trackball options, backlit keys, and various other options such as Sun Type 6 compatibility are available.

The versatile design of Data**Metrics**<sup>™</sup> Model 9920 *STEALTH* allows for economical, application specific customization.

- 1U in Height (1.75")
- Control Multiple Computers from One Display/Keyboard
- Multiple Keyboard/Trackball Options
- Designed to Meet MIL-STD-810F for Vibration and Shock
- Designed to Meet MIL-STD-461E for EMI
- Sealed Enclosure with NEMA 4 Rating
- 15", 17", & 19" Displays Available
- Resistive or Capacitive Touch-Screen, Anit-Reflective, Anti-Glare, Anti-Fogging, High Bright, and Night Vision Display Options Available.

#### Available in 4 Standard Configurations

- 1) Single PC Control No KVM Switch
- 2) Internal SBC No KVM Switch
- 3) 4 or 8-Port KVM Switch
- 4) Ethernet KVM Switch



#### Model 1040 - PC104 SBC

- PC/104-Plus or PC/104 Compliant
- 4MB Flash Memory
- 64MB SDRAM, Expandable to 128MB
- CRT and TFT Interface with Backlight Control
- 4MB Video Memory (Shared SDRAM)
- 10/100 Mbit/s Ethernet
- 2 RS232/RS485 Ports
- 1 Parallel Port
- 16 GPIO Lines
- Up to 2 IDE Devices
- Boots Under DOS, Linux, QNX and Windows
- 133 MHz ST Micro Atlas CPU

#### Model 1041 - I/O Board

- (4) USB 2.0 Ports (480 Mbit/Sec.)
- (2) IEEE 1394 FireWire Ports (400 Mbit/Sec.)
- (1) Ethernet Port (10/100 Mbit/Sec.)
- PCI Interface (Master) for Fast Connectivity
- Standard 0.1" Headers Optional for All Ports
- Fully PC/104+ Compliant
- 5V Only Option Available
- Low cost
- Supports Linux, Win9X, Win NT, Win XP, Win 2000, and ONX Operating Systems.
- Custom Options are Encouraged
- Switch Selectable PCI Bus Clock and IDSEL

### Model 1042 - PCMCIA Card

- PC Card and Card Bus Support
- Two Type I/II or One Type III Card Supported
  - Mix-and-Match 5V/3.3V PC Card16 and 3.3V CardBus Cards
- Hot Insertion and Removal
- Two IEEE 1394 FireWire Ports
- 100, 200, 400 Mbits/Sec Data Rates for 1394
- PCI Bus Master for Fast Connectivity
- ACPI Power Management support
- Enables the Addition of Flash Disk, Mini Hard Drives, CDROM Drives, and Communication Modules (802.11a/b/g or 56k Modems).



## Tuff*Rider*<sup>™</sup> Computers

#### Model 9300 Generation 1.5 - Touch Screen Computer System



Environmental Characteristics				
Temperature - Operating	-0°C to 50°C			
Temperature - Storage	-40°C to 65°C			
Humidity	5 - 90% @ 40°C non-condensing			
Vibration	MIL-STD-810E, Method 514.4, Categories 1 and 8 for installed platforms			
Shock - Operating	10 G, 6-9 ms, per MIL-STD-810E			
Shock - Non-Operating	20 G, 6-9 ms, per MIL-STD-810E Bench Handling: 3 G non-operating			
Altitude - Operating	-2,000 to 15,000 ft.			
Altitude - Non-Operating	-2,000 to 40,000 ft.			
EMI/EMC	FCC part 15, Class B			
Sand, Dust, Drip	Sealed Unit			

Performance Characteristics				
Processor	Intel Pentium® M 1.1GHz with 400MHz FSB 1MB Cache			
Operating System	Microsoft Windows XP Pro, others optional			
Memory	512MB (1GB Max)			
Storage	4GB Compact Flash (24GB Max with 3 optional 8GB CF Drives)			
PCMCIA Slots	Two onboard			
Wireless LAN - Optional	802.11b/g compatible PCCard			
Display - Standard	8.4" LVDS, 800 x 600 Active Matrix (Sunlight Readable Resistive Touch Screen Display)			
Primary Interfaces	Com1/Com2 RS-232; (5) Dual Type A USB 2.0 Resistive Touch Screen			
Interfaces - Optional	Wireless LAN; Antenna: RP-TNC Coax			
Secondary Interfaces	Mini DIN; (2) IEEE1394; RJ-45 10/100 Ethernet; Mic In; Audio In; Speaker Out; VGA 15 pin			

Physical Characteristics				
Physical Dimensions	6.57" H x9.18"W x3.75"D			
Weight	6.5 lbs.			

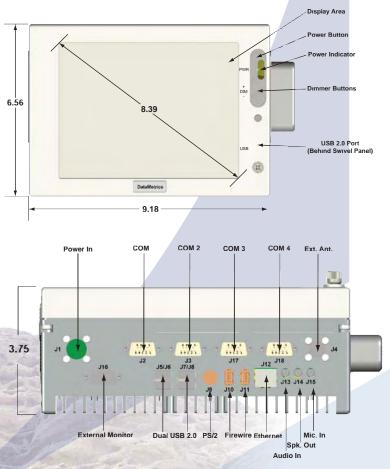
Electrical Characteristics			
Power Input	10 - 28 Vdc, 12/24 Vdc Nominal		
Power Consumption 30W Nominal; 5W Standby; 40W Max			

#### **OVERVIEW**

The **Tuff***Rider*<sup>™</sup> Series Model 9300 is a rugged and reliable conduction cooled computer/display combination. This computer is ideally suited for use in construction equipment, any type of commercial, military, or public service vehicle, plane, helicopter, or vessel. Equipped with a resistive touch screen interface and powered by a SBC with the Intel Pentium® M processor with Intel Speedstep® technology makes the Model 9300 ideal for mobile applications. In addition, the Model 9300 is equipped with all of the interfaces you would find on a normal desktop computer.

In addition to the sealed design, this computer is built to withstand the harshest environments. All units are designed and tested to withstand extreme levels of shock and vibration found in all mobile applications and construction equipment. The frigid cold winter nights of a North Dakota coal mine or the stifling hot desert sun are no match for the **Tuff***Rider*<sup>TM</sup>. With operating temperatures ranging from 32°F to 122°F and non-operating ranging from -40°F to 149°F, this computer is capable of withstand the most extreme conditions.

#### DIMENSIONS - 8.4" DISPLAY



**Coming Soon March'07** - Look for the **Tuff**Rider<sup>™</sup> Model 9300 **Generation 2.0** to be introduced with many new features including increased processor speeds, detachable LRU display and computer box for easy field replacement and repair, and panel or vehicle mounting

options. In partnership with software solutions provider LogicAllSolutions, multiplenew navigation and productivity systems have been developed for the Aggregate (Surface mini-



for the Aggregate/Surface mining industry. Refer to the *TerraRover* GPS Systems brochure for more details on the complete system.

<u>Coming Soon April'07</u> - The FE Certified Intrinsically Safe TuffRider<sup>™</sup> Model 9300 will be available for oil/gas exploration and deep mining operations.



### DISPLAYS

The Data**Metrics**<sup>™</sup> family of displays consist of the 5100 Series RCOTS Displays, 5200 Series Intrinsically Safe Displays, and 5300 Series Military Displays with varying degrees of ruggedness. Each line can be ordered with standard screen sizes of 15″, 17″, 19″, or 20″. All Data**Metrics**<sup>™</sup> rugged displays are fully customizable and available with various options including touch-screen capabilities, rack, panel, wall, tabletop, or custom mounting options, night vision, multiple types of I/O connectors, varying degrees of ruggedness, and more. Give us your rugged specifications and we will develop the right display for you!

<u>Also Available</u> - Display sizes of 8.4", 10.4", and 12.1" are also available as seen in our **Tuff***Rider*<sup>™</sup> line of Touch-Screen Computers and Panel PC's. These displays are perfect for hand held devices, vehicles, airlines, and more. Contact Data**Metrics**<sup>™</sup> for more details!

Allines are available 20'	RCOTS Displays 5100 Series	Intrinsically Safe Displays 5200 Series	Military Displays 5300 Series				
	Environmental Characteristics						
Screen Sizes	15", 17", 19", 20″ LCD	15″, 17″, 19″, 20″ LCD	15″, 17″, 19″, 20″ LCD				
Temperature - Operating	-15°C to 40°C	-15°C to 40°C	-25°C to 50°C				
Temperature - Storage	-25°C to 60°C	-25°C to 60°C	-40°C to 65°C				
Humidity	5 - 95% RH, Non-Condensing	5 - 95% RH, Non-Condensing	5 - 95% RH, Non-Condensing				
Vibration - Operating	1.5 G, 15-2000Hz MIL-STD-810	1.5 G, 15-2000Hz MIL-STD-810	2.5 G, 15-2000Hz MIL-STD-167 & MIL-STD-810				
Vibration - Storage	2.5 G, 15-2000Hz         2.5 G, 15-2000Hz           MIL-STD-810         MIL-STD-810		5 G, 15-2000Hz MIL-STD-810				
Shock - Operating	15 G, 11ms, ½ sine MIL-STD-810	15 G, 11ms, ½ sine MIL-STD-810	70 G, 11ms, ½ sine MIL-STD-901D, GRA, CL I				
Shock - Storage	30 G, 9ms, ½ sine MIL-STD-810	30 G, 9ms, ½ sine MIL-STD-810	70 G, 11ms, ½ sine MIL-STD-901D, GRA, CL I				
Altitude - Operating	40,000 ft.	40,000 ft.	40,000 ft.				
Altitude - Storage	40,000 ft.	40,000 ft.	40,000 ft.				
EMI/EMC	FCC part 15, Class B	FCC part 15, Class B	MIL-STD-461				
Sand, Dust, Rain	Sealed NEMA 4	Sealed NEMA 4	Sealed NEMA 4; MIL-STD-810				
Explosive Atmosphere	N/A	FE Certified	N/A				

Electrical Characteristics						
Power Input - Standard	90 - 264 Vac, 47 - 440Hz		90 - 264 Vac, 47 - 440Hz		90 - 264 Vac, 47 - 440Hz	
Power Consumption - Max	15" - 35W 17" - 40W	19″ - 50W 20″ - 60W	15″ - 35W 17″ - 40W	19″ - 50W 20″ - 60W		19" - 150W (w/ heaters) 20" - 160W (w/ heaters)
- Nominal	15″ - 35W 17″ - 40W	19″ - 50W 20″ - 60W	15″ - 35W 17″ - 40W	19″ - 50W 20″ - 60W	15″ - 35W 17″ - 40W	19″ - 50W 20″ - 60W
- Power Save	All Displays - 5W		All Displays - 5W		All Displays - 5W	

#### Model 5042 - 42" Rugged High Definition Plasma Panel Display



\*Formerly Model 5800\*

The Model 5042 Rugged High Definition Plasma Panel has been uniquely designed and engineered for industrial applications that require extra high reliability. Proven in rugged applications the Model 5042 has an all metal ruggedized frame, low EMI emissions and susceptibility, a cooling design that allows the panel to be "flush" mounted to vertical wall surfaces.

With today's military situations around the world, remote briefings for companies, battalions, and squadrons are often a requirement. The Model 5042 is the ideal solution for rapid, global communication in any theater of engagement, in any environment.

From war room setups to mobile command post operations, the Model 5042, a 42<sup>"</sup> diagonal plasma display with unbelievable clarity, a typical life of 60,000 hours, and built to withstand any conditions worldwide, will be the solution of choice.

- Low Profile, Wall or Ceiling Mounting
- Built-In Scaler with Pan and Zoom
- One-Touch Scaler Control
- Real-Time Video DSP Including Adaptive Comb Filtering
- Proprietary Line Doubling
- Crash and Fire Safety Certified by the United States Government
- Exclusive Multiple Scenario Picture-in-Picture
- Multiple STV and PC Inputs Accepted
- 1200:1 Contrast Ratio
- High Bright Display 1200 Cd/m<sup>2</sup>



### **O**RDERING **I**NFORMATION

#### PERIPHERALS Model Part Number Description Product 1200-0000-1XX Chassis System Monitor and Control Board Envirostat 2.0 1200 PC104 SBC 1040 1040-0000-1XX PC104 Single Board Computer PC104 I/O Board 1041 1041-0000-1XX PC104 I/O Board: USB 2.0, Firewire, Ethernet 1042-0000-1XX PC104 PCMCIA Board PC104 PCMCIA Board 1042

PRINTERS			
Product	Model	Part Number	Description
Dot Matrix Printer	3000	3000-0200-1XX-(paint code)	Dot Matrix Printer, Vehicle Mount,
Inkjet Printer	3100	3100-0100-1XX-(paint code) 3100-1100-1XX-(paint code)	Inkjet Printer, Rack Mount "Flush Front" Inkjet Printer, Rack Mount
Thermal Printer	3200	3200-02XX-1XX-(paint code)	Thermal Printer, Vehicle Mount, Contact DataMetrics for Mounting Hardware
Color Laser Printer	3300	3300-0100-1XX-(paint code)	Color Laser Printer, Rack Mount, Military Grade Components
Color Laser Printer	3315	3315-0100-1XX-(paint code)	Color Laser Printer, Rack Mount, 110 - 127 Vac
Monochromatic Laser Printer	3402	3402-0100-1XX-(paint code)	Mono Laser Printer, Rack Mount, Drop In replacement for Model 3400/3401
Military Thermal Printer	1600 M	113644-1XX-(paint code)	Thermal Printer, Military Grade Components
Monochromatic Laser Printer	2180	117065-1XX-(paint code)	Monochromatic Laser Printer, Military Grade Components
Mobile Thermal Printer	4080	115700-1XX-(paint code)	Mobile Thermal Printer, Military Grade Components
Airline Cockpit Printer	4680	109500-1XX-(paint code)	Airline Cockpit Thermal Printer
Rugged Thermal Printer	8000	115678-1XX-(paint code)	Thermal Printer, Military Grade Components

DISPLAYS

Product	Model	Part Number	Description
HD Plasma	5042	5042-ab00-1XX-(paint code)	42" Rugged High Definition Plasma Panel Display
RCOTS	5100 Series	5115-ab00-1XX-(paint code) 5117-ab00-1XX-(paint code) 5119-ab00-1XX-(paint code) 5120-ab00-1XX-(paint code)	15" RCOTS Display, a = Touch-Screen, b = Mounting 17" RCOTS Display, a = Touch-Screen, b = Mounting 19" RCOTS Display, a = Touch-Screen, b = Mounting 20" RCOTS Display, a = Touch-Screen, b = Mounting
Intrinsically Safe	5200 Series	5215-ab00-1XX-(paint code) 5217-ab00-1XX-(paint code) 5219-ab00-1XX-(paint code) 5220-ab00-1XX-(paint code)	15" Intrinsically Safe Display, a = Touch-Screen, b = Mounting 17" Intrinsically Safe Display, a = Touch-Screen, b = Mounting 19" Intrinsically Safe Display, a = Touch-Screen, b = Mounting 20" Intrinsically Safe Display, a = Touch-Screen, b = Mounting
Military	5300 Series	5315-ab00-1XX-(paint code) 5317-ab00-1XX-(paint code) 5319-ab00-1XX-(paint code) 5320-ab00-1XX-(paint code)	15" Military Grade Display, a = Touch-Screen, b = Mounting 17" Military Grade Display, a = Touch-Screen, b = Mounting 19" Military Grade Display, a = Touch-Screen, b = Mounting 20" Military Grade Display, a = Touch-Screen, b = Mounting
<ul> <li>a* 0 = No Touch-Screen; 1 = Resistive Touch-Screen; 2 = Capacitive Touch-Screen; 3 = SAW Touch-Screen</li> <li>b* 0 = Wall Mount; 1 = Rack Mount; 2 = Tabletop; 3 = Open Frame; 4 = Panel Mount; 9 = Custom</li> </ul>			

Contact Data**Metrics** for 8.4", 10,4", and 12.1" Displays

#### CHASSIS & ENCLOSURES

Product	Model	Part Number	Description
COTS Chassis	7000 Series	7008-21aX-1XX-(paint code) 7009-21aX-1XX-(paint code) 7010-21aX-1XX-(paint code)	8U COTS Chassis, 21 Slot, a = Backplane 9U COTS Chassis, 21 Slot, a = Backplane 10U COTS Chassis, 21 Slot, a = Backplane
RCOTS Chassis	7107	7107-18aX-1XX-(paint code)	7U RCOTS Chassis, 18 Slot, a = Backplane
PC/Server Chassis	7204	7204-07aX-1XX-(paint code)	4U PC/Server Chassis, 7 Slot, a = Backplane
ATR Chassis	8211	8211-09aX-1XX-(paint code)	ATR Chassis, Hybrid Cooling, Full Long, 9 Slot, a = Backplane
<b>a*</b> 0 = No Backplane: 1 = VME: 2 = VME64X: 3 = VITA: 4 = CPCI: 5 = UTCA: 6 = MicroTCA: 7 = ATX: 9 = Custom			

**a**\* 0 = No Backplane; I = VME; Z = VME64X; 3 = VIIA; 4

**COMPUTER SYSTEMS** Model Product Part Number Description 9100-00XX-1XX-(paint code) 9100-01XX-1XX-(paint code) TuffRider Embedded Computer, Pentium M Processor TuffRider Embedded Computer, Intel Core Duo Processor TuffRider Embedded 9100 **Computer Module** 9300-08ab-1XX-(paint code) 9300-10ab-1XX-(paint code) TuffRider Touch-Screen Computer, 8.4" Display, a=Software, b=Mounting TuffRider Touch-Screen Computer, 10.4" Display, a=Software, b=Mounting TuffRider Touch-Screen Computer, 12.1" Display, a=Software, b=Mounting TuffRider Touch-Screen 9300 9300-12ab-1XX-(paint code) 9300-15ab-1XX-(paint code) Computer TuffRider Touch-Screen Computer, 15" Display, a=Software, b=Mounting STEALTH 1U Integrated KVM Display/Keyboard, 15" Display, c=Configuration STEALTH 1U Integrated KVM Display/Keyboard, 17" Display, c=Configuration STEALTH 1U Integrated KVM Display/Keyboard, 19" Display, c=Configuration 9920-15c0-1XX-(paint code) 9920-17c0-1XX-(paint code) STEALTH 9920 992<u>0-19c0-1XX-(paint code)</u> a\* 0 = No Software; 1 = TerraRover; 2 = Dredge Monitor; 3 = BlastRig Monitor; 4 = Boom Monitor (More Information Available in TerraRover Brochure) **b**\* 0 = Vehicle Mount; 1 = Panel Mount **c**\* 0 = No KVM Switch-Single PC; 1 = Internal SNC - No KVM Switch; 2 = 4 or 8-port KVM Switch; 3 = Ethernet KVM Switch PAINT CODES P005 - Semi-Gloss Gray/Smooth Finish P036 - Semi-Gloss Olive Drab/Medium Finish **P044** - Gloss Black Powder Coat A000 - Anodize Black A001 - Anodize Gray C000 - Clear Chemical C001 - Chemical Yellow/Gold Keep an eye out for what is to come in 2007! DataMetrics<sup>™</sup> has ЗАО "ЭлекТрейд-М" an aggressive new product design schedule which includes new 121248, Россия, Москва,

an aggressive new product design schedule which includes new conduction cooled ATR chassis, COTS and RCOTS chassis, three new display lines, the newest version of our **Tuff***Rider*<sup>™</sup> computer, and more! From the entire Data**Metrics**<sup>™</sup> team, we would like to <u>thank you</u> in advance for your consideration and interest in our products!

ЗАО "ЭлекТрейд-М" 121248, Россия, Москва, Кутузовский проспект, д. 7/4, корп. 6, офис 50 Телефон/факс: +7-(095)-974-14-80 E-mail: info@eltm.ru http://www.eltm.ru



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