Control Systems

- Hydraulic Control Unit
- Designed for EMC to DEF STAN 59-41(Land Class A) and DEF STAN 61-5 Part 6
- LRU containing multiple cards (microprocessor, digital &
- analogue I/O, PSU & filter, reversionary PLD)
- Isolation of outputs for EMC
- Power 28VDC
- · Excellent reliability growth trials performance



- Engine & Transmission Control System
- Comprises 4 units engine junction box, warning light box, electronic control unit, engine temperature sensors
- Interfaces the new engine and automatic transmission to the existing vehicle control/instrumentation and electrical system
- Full suite of interconnecting cables for vehicle installation
- Power 28VDC



Power Systems

System Power Distribution Unit

- Designed to EMC to DEF STAN 59-41 (Land Class A) and DEF STAN 61-5 Part 6
- Power distribution system to integrate Bridge Layer System into Abrams Tank Chassis
- Provides additional logic control
- Distribution of 28VDC vehicle supply to bridge laying hydraulic system • Power - 2.25kW



- Fast rise time of 4kV/ms
 Sonar towed array power supply
- Low riple < 10mA
- Up to 1000Vdc output
- Modules individually monitored by embedded processor & SOPC
- Integrated communications betwen modules and
- external system
- Hardware safety trips
- · Constant current and voltage switch mode
- Five individual serial comms links (RS485 & RS232)



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Power & Control Solutions

Ferranti Technologies Ltd offers a comprehensive range of design engineered products that are tailored to suit customer requirements. Our engineers work closely with customers to ensure their requirements are correctly interpreted in order that the resulting solution is fully compliant.

- . 115V/230V ac Variable Frequency to
- 115V/230V ac 400Hz Fixed Frequency 110V/220V ac 60/50Hz Domestic Pow 28V dc to 115V 400Hz ac
- . Power 500VA to 3KVA
- Efficiency > 85%
 Designed to AMD 24/DO-254/DO-178

Transformer Rectifier Unit

- 115V ac 3 phase 400Hz to 28V dc
- · Power Rating 200Amps Up to 300% Overload Capability
- Efficiency > 88% Full BITE

DC-DC Converter

- · Maintains 28V dc Critical Power
- Input as low as 8V dc
- Power 750 Watts
- Utilises Novel Boost Converter · PLD Controlled Multi Mode Operation
- Full BITE



- · Independent power for up to 10 minutes
- Integrated Crash & Water Sensors
- · Manual Override Capability
- Mass < 1kg (~2lbs)
- Potential for Multi Devices per Unit
- UK MoD Qualified



- · Integrated Power & Control
- Power up to 40kW
 Low Exported Ripple EMC Compliance
- Thermal & Overload Protection High Power Density
- Design for High Reliability/Harsh Environments













· Electronic/Electrical/Mechanical

· Power Supplies - Internal/External

Power Conversion

- Electronic & Motor Control
- · Control Panel Assemblies
- Hardware Analogue, Digital, Electronic, Electrical, Mechanical
- Software Real Time Control Systems, RS232, RS422, Mil 1553, ARINC 429, CANBUS, Ethernet
- Safety Critical DO-254/DO-178B
- Power from 200W to 40kW
- PCB Design & Manufacture
- High Efficiency <85%



- Harsh Environment -55 C to +85 C
- EMC, EMP, HIRF Compliance
- · High Reliability
- Project Management DOORS, MS Project, GRESS, eRoom
- · ILS Reliability Predictions, FMECA, Technical Publications, Spares Provisioning, Obsolescence
- Customer Logistics Support Electronic, Electro Mechanical
- In-House UKAS Approved Environmental Test Facility HALT/HASS, EMC Pre-Compliance
- Accreditations BS EN ISO 9001 (TickIT), AS9100, EASA Parts 21G & 145, Def-Stan 05-123
- . Contract Manufacture of Complex Avionic & **Electronic Assemblies**

