**Overview**

A rugged handheld unit having MIL-STD-1553 Bus and Opto Isolated Digital I/O’s. It can be configured to test or simulate functions to test or validate the unit under test (UUT). It can generate required control signals, read inputs and compare with the standard test pattern to check the status. The mentioned conditions can be programmed and called “Test Software”. MIL-STD-1553B data bus single node is configured as Bus Controller (BC).

**Features**

* Rugged & IP 65 compliant
* Intel Celeron Dual Core Processor @1.58 GHz speed or Single ARM Cortex A7 processor @900MHz
* Windows/Linux Operating System
* 7” TFT Display with resistive Touch Panel
* Vibration & Dust resistant
* EMI/EMC compatible
* Opto isolated DIOs
* Isolated AIOs

**Application Areas**

* Dedicated 1553 Bus Testing
* Simulating BC functions
* Simulating RT functions
* Dedicated ARINC-429

**Technical Specifications of Terrain 1553 with Linux OS**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Processor | CPU | ARM Cortex A7 Processor |
| Speed | 900MHz |
| C:\Users\Aamani\Downloads\2-OperatingSystem.png | Operating System | OS | Linux |
| C:\Users\Aamani\Downloads\3-Memory.png | Memory | RAM | 512MB DDR3 |
| Flash | 32GB SSD |
| C:\Users\Aamani\Downloads\20405.png | Ports & Interfaces | Interface | USB 2.0 Host, Ethernet, RS-422 & RS-232 |
| 1553 Interface | 2 Node/ 1 Node (BC/RT configurable) |
| Digital Input interface | 28V Opto isolated differential 16 channels |
| Digital Output interface | 28V Opto isolated 16 channels |
| Analog Input interface | +/-10V, 18-bit, 8 channels |
| Analog Output interface | +/-10V, 16-bit, 8 channels single ended  +/-10V, 20-bit, 8 channel differential |
| C:\Users\Aamani\Downloads\6-Power.png | Power | Battery | Rechargeable Li-Ion 5200mAh, 11.1V |
| External Charger | Charger cum Adaptor 230VAC, Output 14.1Vdc @ 3A |
| C:\Users\Aamani\Downloads\7-DisplayKeypad.png | Display | Display type & size | 7” TFT w/ resistive Touch Panel |
| C:\Users\Aamani\Downloads\download.jpg | Connectors | Connector configurations | 1553B & ARINC-429 – 15 Pin High Density D-sub  DIs – 37 Pin High Density D-sub  DOs – 37 Pin High Density D-sub  AIs – 26 Pin High Density D-sub (ADC channels)  AOs – 26 Pin High Density D-sub (DAC channels) |
| C:\Users\Aamani\Downloads\8-Optional.png | Optional Features | Indications | Charge LED/ Low Battery |
| C:\Users\Aamani\Downloads\10-Operating.png | Operating Conditions | Operating Temperature | -20°C to +55°C |
| Storage Temperature | -30°C to +65°C |
| Relative Humidity | 45°C, 95% (Non-condensing) |

**Technical Specifications of Terrain 1553 with Windows OS**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Processor | CPU | Intel Atom Processor |
| Speed | 1.58GHz |
| C:\Users\Aamani\Downloads\2-OperatingSystem.png | Operating System | OS | Windows |
| C:\Users\Aamani\Downloads\3-Memory.png | Memory | RAM | 2GB DDR3 |
| Flash | 32GB SSD |
| C:\Users\Aamani\Downloads\20405.png | Ports & Interfaces | Interface | USB 2.0 Host, Ethernet, RS-422 & RS-232 |
| 1553 Interface | 2 Node/ 1 Node (BC/RT configurable) |
| Digital Input interface | 28V Opto isolated differential 16 channels |
| Digital Output interface | 28V Opto isolated 16 channels |
| Analog Input interface | 28Vdc, 12-bit, 8 channels |
| C:\Users\Aamani\Downloads\6-Power.png | Power | Battery | Rechargeable Li-Ion 5200mAh, 7.4V |
| External Charger | Charger cum Adaptor 230VAC, Output 12Vdc @ 3A |
| C:\Users\Aamani\Downloads\7-DisplayKeypad.png | Display | Display type & size | 7” TFT w/ resistive Touch Panel |
| C:\Users\Aamani\Downloads\download.jpg | Connectors | Connector configurations | 1553B – Twinax/ Triax  DIs – 37 Pin High Density D-sub  DOs – 37 Pin High Density D-sub  AIs – 25 Pin High Density D-sub |
| C:\Users\Aamani\Downloads\8-Optional.png | Optional Features | Indications | Charge LED/ Low Battery |
| C:\Users\Aamani\Downloads\10-Operating.png | Operating Conditions | Operating Temperature | -20°C to +55°C |
| Storage Temperature | -30°C to +65°C |
| Relative Humidity | 45°C, 95% (Non-condensing) |