

## **Specifications**

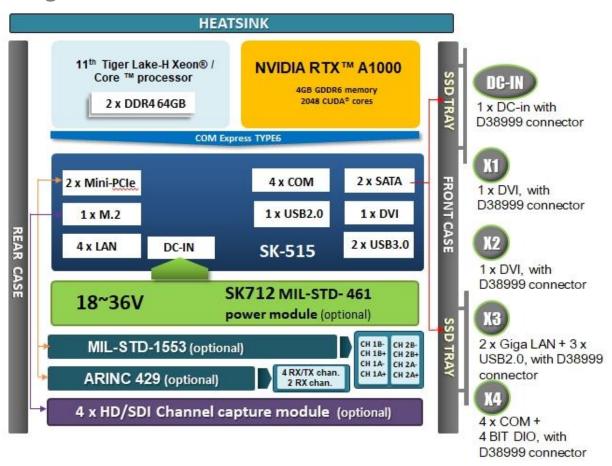
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| CPU                   | Intel Xeon W-11865MLE (8 Cores/16 Threads, 24M Cache, up to 4.50 GHz), 25W |  |  |
|-----------------------|--|--|--|
| Memory type           | 4 x 260 Pin DDR4 2400MHz SO-DIMM (up to 128GB, XEON®SKU support ECC)       |  |  |
| CHIPSET               | CM246  |  |  |
|                       | NVIDIA RTX™ A1000 embedded graphics  |  |  |
| CDLI                  | - Standard MXM 3.1 Type A (82 x 70 mm)                                     |  |  |
| GPU                   | - 2048 CUDA® cores, 16 RT Cores, and 64 Tensor Cores                       |  |  |
| (optional)            | - 6.66TFLOPS peak FP32 performance   |  |  |
|                       | - 4GB GDDR6 memory, 128-bit  |  |  |
| On Board Storage      | mSATA 512GB  |  |  |
|                       | 1 x M.2(M-key,Type: 2280 , SATA/PCIe 3.0 x 4 NVMe)                         |  |  |
| <b>Expansion Slot</b> | 2 x Mini PCle Full size (USB / PCle and 1 x micro SIM Card)                |  |  |
|                       | 1 x PCle/104, 1 x FPE  |  |  |
| TPM                   | TPM 2.0 (SLB9665)  |  |  |
| VIDEO INPUT           | 4 Channel conture module for 4 v CMA made compactage (antique)             |  |  |
| (optional)            | 4 Channel capture module for 4 x SMA male connectors (optional)            |  |  |
| STORAGE               |  |  |  |
| SATA                  | 2 x 2.5" SSD   |  |  |
| M.2                   | 1 x M.2(M-key,Type: 2280 , SATA/PCIe 3.0 x 4 NVMe)                         |  |  |
| ETHERNET              |  |  |  |
| Ethernet              | 2 v 10/100/1000 Ethornot Ports   |  |  |
| (Internal)            | 2 x 10/100/1000 Ethernet Ports   |  |  |
| FRONT I/O             |  |  |  |
| DC-in                 | 1 x DC-in , with D38999 connector  |  |  |
| X1                    | 1 x DVI , with D38999 connector  |  |  |
| X2                    | 1 x DVI , with D38999 connector  |  |  |
| X3                    | 2 x GLAN + 3 x USB 2.0, with D38999 connector                              |  |  |
| X4                    | 4 x RS232/422/485 + 4 BIT DIO, with D38999 connector                       |  |  |
| LED                   | 1 x SSD/HDD LED indicator  |  |  |
| switch                | 1 x IP65 power button , with LED indicator                                 |  |  |
| Power                 |  |  |  |
| Power input           | MIL-STD -461 18V~36V DC-Input  |  |  |
| OPERATING SY          | STEM   |  |  |

| PHYSICAL           Dimension         246(W) x 325 (L) x 100 (H)mm           Weight         (TBD)           Chassis         SECC           Heatsink         Heatsink Aluminum Alloy, Corrosion Resistant           ENVIRONMENTAL           Green Product         RoHS, WEEE compliance           Operating Temp.         -40°C to +60°C           Storage Temp.         -40°C to +60°C           Relative Humidity         5% to 95%, non-condensing           MIL-STD-810 SPECIFICATIONS (OPERATING)           Method 502.5         How Temperature         -20°C, 4 hours, ±3°C           Procedure 2           Method 501.5         High Temperature         +55°C, 4 hours, ±3°C           Method 507.5         Humidity         85%-95% RH without condensation, and the storage of the sto  | OS                  | Windows® 10 64-bit / Linux (support by request) |  |  |
|---|---------------------|---|--|--|
| Weight (TBD) Chassis SECC Heatsink Heatsink Aluminum Alloy, Corrosion Resistant  ENVIRONMENTAL  Green Product RoHS, WEEE compliance Operating Temp40°C to +60°C Storage Temp40°C to +85°C Relative Humidity 5% to 95%, non-condensing  MIL-STD-81  SPECIFICATIONS (OPERATING)  Method 502.5 Procedure 2 Method 501.5 Procedure 2 Method 507.5 Humidity 85%-95% RH without condensation, 24 hours, ±3°C  Method 514.6 Vibration 5-500Hz, Vertical 2.20Grms, 40mins x 3axis.  Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-81  SPECIFICATIONS (NONE-OPERATING)  Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-81  SPECIFICATIONS (NONE-OPERATING)  Method 501.5 High Temperature Storage -33°C, 4 hours, change rate:≨20°C/ Hour-15°C, 72hours (By request)  Method 501.5 High Temperature Storage +63°C, 240 hours (By request)  Method 501.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-81  Storage +63°C, 240 hours (By request)  Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-461  Conducted Emissions CE102 basic curve 10kHz - 30MHz  Power Leads  Radiated Susceptibility Figure 1.5 MHz - 3GHz, 50 V/m equal for all frequencies 20kHz - 30Hz, 50 V/m equal for all freq | PHYSICAL            |   |  |  |
| Chassis       SECC         Heatsink       Heatsink Aluminum Alloy, Corrosion Resistant         ENVIRONMENTAL         Green Product       RoHS, WEEE compliance         Operating Temp.       -40°C to +60°C         Storage Temp.       -40°C to +85°C         Relative Humidity       5% to 95%, non-condensing         MIL-STD-810 SPECIFICATIONS (OPERATING)         Method 502.5       How Temperature       -20°C, 4 hours, ±3°C         Procedure 2       High Temperature       +55°C, 4 hours, ±3°C         Method 501.5       Humidity       85%-95% RH without condensation, 24 hours, cycle, conduct 10 cycles.         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours, cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)         Method 502.5       Low Temperature Storage       -33°C, 4 hours, change rate:≦20°C/ Hour. 15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≦20°C/ Hour. 46°C, 240 hours (By request)         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-  | Dimension           | 246(W) x 325 (L) x 100 (H)mm                    |  |  |
| Heatsink Heatsink Aluminum Alloy, Corrosion Resistant  ENVIRONMENTAL  Green Product ROHS, WEEE compliance  Operating Temp.  | Weight              | (TBD)   |  |  |
| Green Product RoHS, WEEE compliance Operating Temp40°C to +60°C Storage Temp40°C to +85°C Relative Humidity 5% to 95%, non-condensing MIL-STD-810 SPECIFICATIONS (OPERATING)  Method 502.5 Procedure 2 Method 501.5 Procedure 2 Method 507.5 Humidity 85%-95% RH without condensation, 24 hours, ±3°C Method 514.6 Vibration 5-500Hz, Vertical 2.20Grms, 40mins x 3axis. Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)  Method 501.5 Method 514.6 Vibration 5-500Hz, Vertical 2.20Grms, 40mins x 3axis. Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)  Method 501.5 High Temperature Storage -33°C, 4 hours, change rate:≦20°C/ Hour15°C, 72hours (By request)  Method 514.6 Vibration 5-500Hz, Vertical 2.20Grms, 40mins x 3axis.  Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-461 Conducted Emissions CE102 basic curve 10kHz - 30MHz  Power Leads  Raciated Raciated Raciated Raciated Raciated Raciated Raciated Raciated Susceptibility Electric Field Secured Raciated Raciated Susceptibility Raciated Raciated Raciated Susceptibility Raciated Raci    | Chassis             | SECC  |  |  |
| Green Product       RoHS, WEEE compliance         Operating Temp.       -40°C to +60°C         Storage Temp.       -40°C to +85°C         Relative Humidity       5% to 95%, non-condensing         MIL-STD-810 SPECIFICATIONS (OPERATING)         Method 502.5       Low Temperature       -20°C, 4 hours, ±3°C         Procedure 2       Humidity       +55°C, 4 hours, ±3°C         Method 501.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-810 SPECIFICATIONS (None-OPERATING)       -15°C, 72hours (By request)         Method 502.5       Low Temperature Storage       -33°C, 4 hours, change rate:≦20°C/ Hour15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≦20°C/ Hour15°C, 72hours (By request)         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-461       Vi  | Heatsink            | Heatsink Aluminum Alloy, Corrosion Resistant    |  |  |
| Operating Temp.       -40°C to +60°C         Storage Temp.       -40°C to +85°C         Relative Humidity       5% to 95%, non-condensing         MIL-STD-810 SPECIFICATIONS (OPERATING)         Method 502.5       Low Temperature       -20°C, 4 hours, ±3°C         Procedure 2       High Temperature       +55°C, 4 hours, ±3°C         Method 501.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-810 SPECIFICATIONS (None 10 peranting)         Method 501.5       High Temperature Storage       -33°C, 4 hours, change rate:≦20°C/ Hour15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≦20°C/ Hour. +63°C, 240 hours (By request)         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.  | ENVIRONMENTAL       |   |  |  |
| Storage Temp40°C to +85°C  Relative Humidity 5% to 95%, non-condensing  MIL-STD-810 SPECIFICATIONS (OPERATING)  Method 502.5  Procedure 2  Method 501.5  Procedure 2  Method 507.5  Method 514.6  Method 516.6  Shock  MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)  Method 516.6  Method 516.6  Method 516.6  Method 516.6  Method 516.6  Method 502.5  Low Temperature  Procedure 1  Method 501.5  High Temperature Storage Procedure 1  Method 501.5  High Temperature Storage  Procedure 1  Method 501.5  High Temperature Storage  Procedure 1  Method 501.5  High Temperature Storage  Procedure 1  Method 501.5  High Temperature Storage  Procedure 1  Method 514.6  Vibration  Storage  +71°C, 4 hours, change rate:≦20°C/ Hour. +63°C, 240 hours (By request)  Method 514.6  Vibration  Storage  +63°C, 240 hours (By request)  Method 516.6  Shock  20 Grms, 11ms, 3 axes.  MIL-STD-461  Conducted Emissions  Method 516.6  Shock  10kHz – 30MHz  Power Leads  Radiated  Radiated  Radiated  Radiated  Radiated  Radiated  Susceptibility  Electric Field   | Green Product       | RoHS, WEEE compliance                           |  |  |
| Relative Humidity       5% to 95%, non-condensing         MIL-STD-810 SPECIFICATIONS (OPERATING)         Method 502.5       Low Temperature       -20°C, 4 hours, ±3°C         Procedure 2       High Temperature       +55°C, 4 hours, ±3°C         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)       -33°C, 4 hours, change rate:≤20°C/ Hour -15°C, 72hours (By request)         Method 502.5       High Temperature Storage       -33°C, 4 hours, change rate:≤20°C/ Hour -15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≤20°C/ Hour. +63°C, 240 hours (By request)         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         Method 516.6       Shock <t< td=""><td>Operating Temp.</td><td colspan="3">-40°C to +60°C</td></t<>  | Operating Temp.     | -40°C to +60°C                                  |  |  |
| Method 502.5         Procedure 2       Low Temperature       -20°C, 4 hours, ±3°C         Method 501.5       High Temperature       +55°C, 4 hours, ±3°C         Procedure 2       High Temperature       +55°C, 4 hours, ±3°C         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-81D       SPECIFICATIONS (NONE-OPERATING)         Method 502.5       Low Temperature Storage       -33°C, 4 hours, change rate:≦20°C/ Hour -15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≦20°C/ Hour. +63°C, 240 hours (By request)         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MIL-STD-46 1       CE102 basic curve       10kHz – 30MHz         Conducted Emissions       CE102 basic curve       10kHz – 30Hz, 50 V/m equal for all frequencies         Susceptibility       2MHz – 80MHz, 50 V/m equal for all frequencies         BoMHz – 3GHz, 50 V/m equal for all frequencies  | Storage Temp.       | -40°C to +85°C                                  |  |  |
| Method 502.5<br>Procedure 2Low Temperature-20°C, 4 hours, ±3°CMethod 501.5<br>Procedure 2High Temperature<br>High Temperature+55°C, 4 hours, ±3°CMethod 507.5<br>Method 507.5Humidity<br>Humidity<br>Humidity<br>Method 514.685%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-810 SPECIFICATIONS (NONE-OPERATING)Method 502.5<br>Procedure 1Low Temperature Storage<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>-15°C, 72hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461Conducted Emissions<br>Power Leads10kHz – 30MHzRadiated<br>SusceptibilityRS103<br>  | Relative Humidity   | 5% to 95%, non-condensing                       |  |  |
| Low Temperature-20°C, 4 hours, ±3°CMethod 501.5<br>Procedure 2High Temperature<br>High Temperature+55°C, 4 hours, ±3°CMethod 507.5<br>Method 507.5Humidity<br>24 hours/ cycle, conduct 10 cycles.Method 514.6<br>Method 516.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6<br>Mill-STD-B10SPECIFICATIONS (None-Operating)Method 502.5<br>Procedure 1Low Temperature Storage<br>-15°C, 72hours (By request)Method 501.5<br>Procedure 1High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>-15°C, 72hours (By request)Method 514.6<br>Method 516.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6<br>Method 516.6Shock20 Grms, 11ms, 3 axes.Mill-STD-46120 Grms, 11ms, 3 axes.Conducted Emissions<br>Power LeadsEE102 basic curve10kHz – 30MHzRadiated<br>SusceptibilityRS103<br>2MHz – 80MHz, 50 V/m equal for all frequencies<br>2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field2MHz – 80MHz, 50 V/m equal for all frequencies  | MIL-STD-810 S       | SPECIFICATIONS (OPE                             | RATING )   |  |
| Method 501.5         Procedure 2       High Temperature       +55°C, 4 hours, ±3°C         Method 507.5       Humidity       85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MiL-STD-810 SPECIFICATIONS (None-Operating)       -33°C, 4 hours, change rate:≦20°C/ Hour         Procedure 1       -15°C, 72hours (By request)         Method 501.5       High Temperature       +71°C, 4 hours, change rate:≦20°C/ Hour.         Procedure 1       5torage       +63°C, 240 hours (By request)         Method 514.6       Vibration       5-500Hz, Vertical 2.20Grms, 40mins x 3axis.         Method 516.6       Shock       20 Grms, 11ms, 3 axes.         MiL-STD-46 1       20 Grms, 11ms, 3 axes.         Conducted Emissions       CE102 basic curve       10kHz – 30MHz         Power Leads       1.5 MHz – 3GHz, 50 V/m equal for all frequencies         Susceptibility       2MHz – 80MHz, 50 V/m equal for all frequencies         Electric Field       80MHz – 3GHz, 50 V/m equal for all frequencies   | Method 502.5        |   | 200  |  |
| High Temperature+55°C, 4 hours, ±3°CMethod 507.5Humidity85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-810 SPECIFICATIONS (None-Operating)Method 502.5Low Temperature Storage<br>Procedure 1-33°C, 4 hours, change rate:≦20°C/ Hour<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.Procedure 1Storage+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461CE102 basic curve10kHz – 30MHzPower Leads1.5 MHz – 3GHz, 50 V/m equal for all frequenciesRadiated<br>SusceptibilityRS103<br>2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field2MHz – 3GHz, 50 V/m equal for all frequencies   | Procedure 2         | - Low Temperature                               | -20°C, 4 hours, ±3°C                             |  |
| Procedure 2Method 507.5Humidity85%-95% RH without condensation, 24 hours/ cycle, conduct 10 cycles.Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-B10 SPECIFICATIONS (None-Operating)Method 502.5Low Temperature Storage<br>Procedure 1-33°C, 4 hours, change rate:≦20°C/ Hour<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461CE102 basic curve10kHz – 30MHzPower LeadsCE102 basic curve10kHz – 30HzRadiated<br>SusceptibilityRS103<br>2MHz – 80MHz, 50 V/m equal for all frequenciesSusceptibility2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 501.5        |   |  |  |
| 24 hours/ cycle, conduct 10 cycles.Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-81D SPECIFICATIONS (None-OPERATING)Method 502.5Low Temperature Storage<br>Procedure 1-33°C, 4 hours, change rate:≦20°C/ Hour<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461Conducted EmissionsCE102 basic curve10kHz – 30MHzPower LeadsRS1031.5 MHz – 3GHz, 50 V/m equal for all frequenciesSusceptibility2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies  | Procedure 2         | - High Temperature                              | +55°C, 4 hours, ±3°C                             |  |
| Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-810 SPECIFICATIONS (None-Operating)Method 502.5Low Temperature Storage<br>Procedure 1-33°C, 4 hours, change rate:≦20°C/ Hour<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461CE102 basic curve10kHz – 30MHzPower LeadsRS1031.5 MHz – 3GHz, 50 V/m equal for all frequenciesSusceptibility2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 507.5        | Humidity  | 85%-95% RH without condensation,                 |  |
| Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-810 SPECIFICATIONS (None-Operating)Method 502.5Low Temperature Storage<br>-15°C, 72hours (By request)Procedure 1High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Procedure 1Storage+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461CE102 basic curve10kHz – 30MHzPower LeadsRS1031.5 MHz – 3GHz, 50 V/m equal for all frequenciesSusceptibility2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies  |                     |   | 24 hours/ cycle, conduct 10 cycles.              |  |
| MIL-STD-810 SPECIFICATIONS (None-Operating)Method 502.5Low Temperature Storage<br>-15°C, 72hours (By request)Procedure 1+71°C, 4 hours, change rate:≤20°C/ Hour.<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≤20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461Conducted Emissions<br>Power LeadsCE102 basic curve10kHz – 30MHzRadiated<br>SusceptibilityRS103<br>2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 514.6        | Vibration                                       | 5-500Hz, Vertical 2.20Grms, 40mins x 3axis.      |  |
| Method 502.5Low Temperature Storage<br>Procedure 1-33°C, 4 hours, change rate:≦20°C/ Hour<br>-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-461Conducted Emissions<br>Power LeadsCE102 basic curve10kHz – 30MHzRadiated<br>SusceptibilityRS103<br>2MHz – 80MHz, 50 V/m equal for all frequencies<br>2MHz – 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz – 3GHz, 50 V/m equal for all frequencies   | Method 516.6        | Shock   | 20 Grms, 11ms, 3 axes.                           |  |
| Procedure 1-15°C, 72hours (By request)Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-46 1Conducted Emissions<br>Power LeadsCE102 basic curve10kHz − 30MHzRadiated<br>SusceptibilityRS1031.5 MHz − 3GHz, 50 V/m equal for all frequencies<br>2MHz − 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz − 3GHz, 50 V/m equal for all frequencies  | MIL-STD-810 S       | SPECIFICATIONS (NON                             | NE-OPERATING)                                    |  |
| Method 501.5High Temperature<br>Storage+71°C, 4 hours, change rate:≦20°C/ Hour.<br>+63°C, 240 hours (By request)Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-46 1Conducted EmissionsCE102 basic curve10kHz − 30MHzPower LeadsRS1031.5 MHz − 3GHz, 50 V/m equal for all frequenciesSusceptibility2MHz − 80MHz, 50 V/m equal for all frequenciesElectric Field80MHz − 3GHz, 50 V/m equal for all frequencies  | Method 502.5        | Low Temperature Storage                         | •  |  |
| Procedure 1 Storage +63°C, 240 hours (By request)  Method 514.6 Vibration 5-500Hz, Vertical 2.20Grms, 40mins x 3axis.  Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-46 1  Conducted Emissions CE102 basic curve 10kHz - 30MHz  Power Leads  Radiated RS103 1.5 MHz - 3GHz, 50 V/m equal for all frequencies 2MHz - 80MHz, 50 V/m equal for all frequencies 80MHz - 3GHz, 50 V/m equal for all frequencies 80MHz - 3GHz, 50 V/m equal for all frequencies  | Procedure 1         | _   |  |  |
| Method 514.6Vibration5-500Hz, Vertical 2.20Grms, 40mins x 3axis.Method 516.6Shock20 Grms, 11ms, 3 axes.MIL-STD-46 1Conducted Emissions<br>Power LeadsCE102 basic curve10kHz – 30MHzRadiated<br>SusceptibilityRS1031.5 MHz – 3GHz, 50 V/m equal for all frequenciesElectric Field2MHz – 80MHz, 50 V/m equal for all frequencies80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 501.5        | High Temperature                                | +71°C, 4 hours, change rate:≦20°C/ Hour.         |  |
| Method 516.6 Shock 20 Grms, 11ms, 3 axes.  MIL-STD-46 1  Conducted Emissions Power Leads  Radiated RS103 1.5 MHz – 3GHz, 50 V/m equal for all frequencies 2MHz – 80MHz, 50 V/m equal for all frequencies 80MHz – 3GHz, 50 V/m equal for all frequencies   | Procedure 1         | Storage   | +63°C, 240 hours (By request)                    |  |
| Conducted Emissions Power Leads  Radiated Susceptibility  RS103  RS103  1.5 MHz – 3GHz, 50 V/m equal for all frequencies 2MHz – 80MHz, 50 V/m equal for all frequencies 80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 514.6        | Vibration                                       | 5-500Hz, Vertical 2.20Grms, 40mins x 3axis.      |  |
| Conducted Emissions Power Leads  Radiated Susceptibility  Electric Field  CE102 basic curve  10kHz – 30MHz  1.5 MHz – 3GHz, 50 V/m equal for all frequencies  2MHz – 80MHz, 50 V/m equal for all frequencies  80MHz – 3GHz, 50 V/m equal for all frequencies  | Method 516.6        | Shock   | 20 Grms, 11ms, 3 axes.                           |  |
| Power Leads  Radiated RS103 1.5 MHz – 3GHz, 50 V/m equal for all frequencies  Susceptibility 2MHz – 80MHz, 50 V/m equal for all frequencies  Electric Field 80MHz – 3GHz, 50 V/m equal for all frequencies  | MIL-STD-461         |   |  |  |
| Radiated RS103 1.5 MHz – 3GHz, 50 V/m equal for all frequencies 2MHz – 80MHz, 50 V/m equal for all frequencies 80MHz – 3GHz, 50 V/m equal for all frequencies   | Conducted Emissions | CE102 basic curve                               | 10kHz – 30MHz                                    |  |
| Susceptibility  2MHz – 80MHz, 50 V/m equal for all frequencies  80MHz – 3GHz, 50 V/m equal for all frequencies  | Power Leads         | _   |  |  |
| Electric Field  80MHz – 3GHz, 50 V/m equal for all frequencies  | Radiated            | RS103   | 1.5 MHz – 3GHz, 50 V/m equal for all frequencies |  |
|   | Susceptibility      |   | 2MHz – 80MHz, 50 V/m equal for all frequencies   |  |
| 3GHz – 5GHz, 50 V/m equal for all frequencies   | Electric Field      | _   | 80MHz – 3GHz, 50 V/m equal for all frequencies   |  |
|   |                     |   | 3GHz – 5GHz, 50 V/m equal for all frequencies    |  |

| Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  EN61000-4-5  EN61000-4-5  EN61000-4-5  EN61000-4-5  Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  EN61000-4-3  EN61000-4-5  EN 61000-4-5  Class A  Lead vs. ground potential 1Kv, ignal und DC Net: 0.5 kV  MIL-STD-1275 (OPTIONS)  Steady State  20V-33V  Surge Low  18V/500ms  |                               |              |   |
|---|-------------------------------|--------------|---|
| Electromagnetic compatibility  Electromagnetic compatibility  EN61000-4-5  EN61000-4-5  EN61000-4-5  EN61000-4-5  EN61000-4-5  EN61000-4-3  Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  EN61000-4-5  EN 61000-4-5  EN 61000-4-5  Compatibility  EN 61000-4-5  EN | Electrostatic<br>Discharge    | EN 61000-4-2 | Air DISCHARGE: 8 Kv, Contact discharge: 6kV |
| compatibility  Radio disturbance  EN55022  Class A  Electromagnetic compatibility  EN61000-4-3  Electromagnetic compatibility  Electromagnetic compatibility  EN 61000-4-5  Class A  Lead vs. ground potential 1Kv, ignal und DC Net: 0.5 kV  MIL-STD-1275 (OPTIONS)  Steady State  20V-33V  Surge Low  18V/500ms  | Electromagnetic compatibility | EN61000-4-4  | Signal and DC Net: 1 kV                     |
| Electromagnetic compatibility  Electromagnetic compatibility  Electromagnetic compatibility  EN 61000-4-5  COPTIONS  Steady State  20V-33V  Surge Low  EN 61000-4-3  10V/m  Lead vs. ground potential 1Kv, ignal und DC Net: 0.5 kV   | Electromagnetic compatibility | EN61000-4-5  | , ,   |
| EN61000-4-3  Electromagnetic compatibility  Electromagnetic compatibility  EN 61000-4-5  COPTIONS  Steady State  20V-33V  Surge Low  EN61000-4-3  Lead vs. ground potential 1Kv, ignal und DC Net: 0.5 kV   | Radio disturbance             | EN55022      | Class A                                     |
| compatibility 0.5 kV  MIL-STD-1 275 (OPTIONS)  Steady State 20V-33V  Surge Low 18V/500ms  | Electromagnetic compatibility | EN61000-4-3  | 10V/m                                       |
| Steady State 20V-33V Surge Low 18V/500ms  | Electromagnetic compatibility | EN 61000-4-5 |   |
| Surge Low 18V/500ms   | MIL-STD-1275                  | 5 (OPTIONS)  |   |
|   | Steady State                  | 20V-33V      |   |
| Surge High 100V/500ms   | Surge Low                     | 18V/500ms    |   |
|   | Surge High                    | 100V/500ms   |   |

## **Block Diagram**



## **Appearance**

