MTBF (Mean Time Between Failures)

MTBF information for various General Standards products is included below. If you do not see the product you are interested in, please contact the factory.

PCIe-SIO4BX2-SYNC:
Failure rate: (FPMH) = 5.6686
MTBF = 1.7641E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

VME-SIO4A:
Failure rate: (FPMH) = .457743
MTBF = 2,184,631 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI3U64-HVDO16MI:
Failure rate: (FPMH) = 1.9855
MTBF = 5.0365E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

OPTO32:
Failure rate: (FPMH) = 2.6725
MTBF = 3.7418E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI6U64-HVDOTP16MI:
Failure rate: (FPMH) = 3.2526
MTBF = 3.0745E+05
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCPMC-16AI32SSA:
Failure rate: (FPMH) = 4.0571
MTBF = 2.4648E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

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PMC-SIO4BX-4KLC:
Failure rate: = 1,383.364130
MTBF = 722,855
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

24DSI16WRC:
Failure rate: (FPMH) = 3.8986
MTBF = 2.5650E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

cPCI6U64-24DSI20C500K:
Failure rate: (FPMH) = 2.8018
MTBF = 3.5692E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

16AO20:
Failure rate: (FPMH) = 4.0571
MTBF = 2.4648E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-HPDI32A-485-256K:
Failure rate: (FPMH) = 6.909599
MTBF = 144,726 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

66-16AI32SSC:
Failure rate: (FPMH) = 1.9114
MTBF = 5.2318E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCPMC66-16AI32SSA:
Failure rate: (FPMH) = 2.6069
MTBF = 3.8359E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI6U64-16AIF16MIWR:
Failure rate: (FPMH) = 4.5330
MTBF = 2.2060E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI6U64-16AISS8AO8MI:
Failure rate: (FPMH) = 4.3820
MTBF = 2.2821E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI6U64-16AO16MI:
Failure rate: (FPMH) = 4.7935
MTBF = 2.0861E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI6U-24DSI32R:
Failure rate: (FPMH) = 18.7050
MTBF = 5.3462E+04 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI SIO8BXS:
Failure rate: (FPMH) = .545100
MTBF = 1.8340E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe4 to PMC Adapter:
Failure rate: (FPMH) = 1.289234
MTBF = 775,654 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe4-PMC-1:
Failure rate: (FPMH) = 2.9641
MTBF = 3.3737E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-16AI64SSA-64-50M-50K:
Failure rate: (FPMH) = 7.3242
MTBF = 1.3653E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-16HSDI6:
Failure rate: (FPMH) = 2.1410
MTBF = 4.6708E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe to PMC Adapter:
Failure rate: (FPMH) = 1.8382
MTBF = 5.4401E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Ground Benign

PCIe OPTO32C-12V-Contact:
Failure rate: (FPMH) = 2.6725
MTBF = 37,418 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16AO16-12-F100-DF-49.152Mhz:
Failure rate: (FPMH) = 4.6051
MTBF = 2.1715E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16AISS8AO4:
Failure rate: (FPMH) = 4.4325
MTBF = 2.2560E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-SIO4BXR:
Failure rate: (FPMH) = 1.2317
MTBF = 8.1190E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-12AISS8AO4-8-64K:
Failure rate: (FPMH) = 5.0717
MTBF = 1.9717E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-16AIO168:
Failure rate: (FPMH) = 6.029887
MTBF = 1.6584E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC 24DSI12-8:
Failure rate: (FPMH) = .326655
MTBF = 3.06133+E05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

XMC-SIO4BX:
Failure rate: (FPMH) = 58.3878
MTBF = 1.7127+E05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CPCI-16AO16:
Failure rate: (FPMH) = 3.5160
MTBF = 284,399 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PC104P-24DSI12:
Failure rate: (FPMH) = 4.2880
MTBF = 233,201 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-12AIO:
Failure rate: (FPMH) = 1.3917
MTBF = 718,504 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-16AIO-41:
Failure rate: (FPMH) = 5.9328
MTBF = 168,553 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-16AO12:
Failure rate: (FPMH) = 3.5161
MTBF = 284,399 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-16HSDI:
Failure rate: (FPMH) = 5.3212
MTBF = 187,926 hrs
Ambient temp: 25 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-SIO4B-SYNC:
Failure rate: (FPMH) = 3.2374
MTBF = 308,890 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-16AO4MF:
Failure rate: (FPMH) = 2.7237
MTBF = 367,145 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-SIO4BX:
Failure rate: (FPMH) = 1.3833
MTBF = 722,875 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-16AI64SSC:
Failure rate: (FPMH) = 1.9114
MTBF = 5.2318E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC to cPCI Adapter
Failure rate: (FPMH) = .3740
MTBF = 2.6736E+06 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC SIO4-64K
Failure rate: (FPMH) = 2.9868
MTBF = 334,801 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCPMC-24DSI8R-8-SF-RUG
Failure rate: (FPMH) = 4.4396
MTBF **=** 2.2525E+05 hrs
Ambient temp **:** 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PNL-BNC-2x16AO16-SE
Failure rate: (FPMH) = .1535
MTBF = 6.5156E+06 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PNL-BNC-2x16AI64SSC-DF
Failure rate: (FPMH) = .0347
MTBF = 2.8823E+06 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe 20AO8C500K
Failure rate: (FPMH) = 4.2764
MTBF = 2.3384E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

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PCIe 24DSI32
Failure rate: (FPMH) = 12.9861
MTBF = 7.7005E+04 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe 24DSI6LN
Failure rate: (FPMH) = 1.5440
MTBF = 6.4767E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

SIO4BX
Failure rate: (FPMH) = 1.3833
MTBF = 722,875 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

HPDI32A-COS
Failure rate: (FPMH) = 1.2792
MTBF = 7.8176E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16LI8CLO4
Failure rate: (FPMH) = 1.5167
MTBF = 6.5931E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC to PCI Adapter
Failure rate: (FPMH) = 1.5723
MTBF = 4.5501E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC OPTO32D
Failure rate: (FPMH) = 2.3163
MTBF = 4.3172E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

OPTO32A
Failure rate: (FPMH) = .4998
MTBF = 2.0009E+06 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16AO16-12-F100-DF-49.152Mhz:
Failure rate: (FPMH) = 4.6051
MTBF = 2.1715E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

66-18AI32SSC1M:
Failure rate: (FPMH) = 1.7519
MTBF = 5.7082E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16AO16
Failure rate: (FPMH) = 4.6051
MTBF = 2.1715E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-24CDS16LN
Failure rate: (FPMH) = 3.2265
MTBF = 3.1613E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-16AO64C-32D-BP-F3-49.152M-0-0|
ailure rate: (FPMH) = 4.6640
MTBF = 2.1441E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-24DSI6C500k
Failure rate: (FPMH) = 1.1599
MTBF = 8.6214E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-16AI64SSC-64-50.000M-LL
Failure rate: (FPMH) = 1.8534
MTBF = 5.3581E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI OPTO32B-12V-CONTACT:
Failure rate: (FPMH) = 2.6725
MTBF = 37,418 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI OPTO32B-12V-CONTACT-8x28:
Failure rate: (FPMH) = 2.8257
MTBF= 35,209 hrs
Ambient temp: 30C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI 16SDI HS4:
Failure rate: (FPMH) = 5.321
MTBF = 1.8792E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-DIO24:
Failure rate: (FPMH) = 2.5989
MTBF = 3.8477E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-DIO24:
Failure rate: (FPMH) = 2.5989
MTBF = 3.8477E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI-16SDI-HS4:
Failure rate: (FPMH) = 5.1322
MTBF = 2.8972E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

66-16HSDI4AO4:
Failure rate: (FPMH) = 4.9926
MTBF = 2.0030E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-16AIO-41
Failure rate: (FPMH) = 6.3275
MTBF = 153,497 hrs
Ambient temp: 20 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-SIO4BX2:
Failure rate: (FPMH) = 5.6606
MTBF = 1.7666E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

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PCIe-SIO4BX2-X:
Failure rate: (FPMH) = 5.6606
MTBF = 1.7666E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-HPDI32B-COS-32K
Failure rate: (FPMH) = 1.2375
MTBF = 7.7246E+05 hrs
Ambient temp : 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCPMC66-16AICS32R:
Failure rate: (FPMH) = 2.3275
MTBF = 3.7461E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC ADADIO-311
Failure rate: (FPMH) = 2.0890
MTBF = 4.7870E+05hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC-HPDI32B-256K-P1-L3SFB
Failure rate: (FPMH) = 43.8884
MTBF = 2.2785E+04hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCI66-SIO4B-256K
Failure rate: (FPMH) = 6.2263
MTBF = 1.6061E+05 HRS
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC 16AI64-2
Failure rate: (FPMH) = 2.8851
MTBF = 3.4661E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC SIO4AR-256K
Failure rate: (FPMH) = 1.9500
MTBF = 5.1282E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-24DSI64C200K-32-10V-500K-SRF-0
Failure rate: (FPMH) = 11.9173
MTBF = 8.397E+04 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-OPTO16x16-5V
Failure rate: (FPMH) = 2.2967
MTBF = 4.3542E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIe-OPTO16x16-12V
Failure rate: (FPMH) = 2.2967
MTBF = 4.3542E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

66-16AISS16AO2-16-2-45.00M
Failure rate: (FPMH) = 4.0922
MTBF = 2.4437E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIE-16AO64C-16D-BP-F1-49.152M-0-0
Failure rate: (FPMH) = 4.6640
MTBF = 2.1441E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCVPX-16AO16C
Failure rate: (FPMH) = 4.7148
MTBF = 2.2415E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCVPX-16AI32SSC1M
Failure rate: (FPMH) = 1.9647
MTBF = 5.2621E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

CCVPX-16AISS8AO4C
Failure rate: (FPMH) = 4.6245
MTBF = 2.5420E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PMC66-SIO4BXR-L3RIO
Failure rate: (FPMH) = 1.2317
MTBF = 8.1190E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIE-16AO64C-64SBP-F3-49.152M-OD-0
Failure rate: (FPMH) = 4.6640
M**TBF** = 2.1441E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

PCIE-DIO32A-S
Failure rate: (FPMH) = 3.4978
MTBF = 3.7783E+05 hrs
Ambient temp: 30 C
Calculated at MIL-HDBK-217F
Environment: Ground Benign

Development of MTBF Values:

The most widely known and used reliability prediction handbook is Mil-217. It is used by both commercial companies and the defense industry, and is accepted and known world-wide. The most recent revision is “Military Handbook, Reliability Prediction of Electronic Equipment”, MIL-HDBK-217, Revision F, Notice 2, which was released in February of 1995. It contains failure rate models for numerous electronic components such as integrated circuits, transistors, diodes, resistors, capacitors, relays, switches, and connectors, to name a few. MIL-217 requires a greater amount data entered into the model. It also is a little harsher in the calculation of failure rate data than the Bellcore standard. Typically, but not always, MIL-217 calculated results will show a higher failure rate than Bellcore standard for the same system. This difference in the standards obviously stems from the original intended use of the MIL-217 standard for aerospace and military, or mission critical applications.

Maintaining reliability and providing reliability engineering is an essential need with modern electronic systems. Reliability engineering for electronic equipment requires a means for a quantitative baseline, or a reliability prediction analysis. The MIL-217 standard was developed for military and aerospace applications; however, it has become widely used for industrial and commercial electronic equipment applications throughout the world. Using the Mil-217 standard for reliability prediction produces calculated Failure Rate and Mean Time Between Failures (MTBF) numbers for the individual components, equipment and the overall system. The final calculated prediction results are based on the roll-up, or summation, of all the individual component failure rates.