



ZIPPY TECHNOLOGY CORP.

# Mean Time Between Failures PREDICTION REPORT

MIL-HDBK-217F, Notice 2

Product : Switching Power Supply

Model/Type : M1U-2AC0K2(RoHS)(PMBus WP1.2)

|             |                                                                                     |                    |                                                                                      |
|-------------|-------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------------------------------|
| Approval By |  | 正式<br>資料<br>用<br>章 |  |
| Prepared By |  |                    |                                                                                      |

ZIPPY TECHNOLOGY CORP.  
6F.,NO.48,WUQUAN RD.,  
WUGU DIST.,NEW TAIPEI CITY,TAIWAN,R.O.C.  
RELIABILITY PREDICTION STANDARD REPORT  
(Sorted by Part Number)  
MIL-HDBK-217F, Notice 2

Date : MAY-15-2020      Time : 14:08:41  
End Item Title : M1U SERIES MTBF  
End Item Part Number : M1U-2AC0K2(RoHS)(PMBus WP1.2)  
M1U-2AC0K2(RoHS)(PMBus WP1.2) MTBF : 164,063  
Module Title : ZIPPY TECHNOLOGY CORP  
Module Part Number : M1U / MTBF  
Module Reference Designation : M1U  
Environmental Condition : GB  
Ambient Temperature: 25°C

**M1U-2AC0K2(RoHS)(PMBus WP1.2)**

| ITEM<br># | Part<br>Number | Ref<br>Desig | Qual<br>Level | Quant | Individual<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) | Total<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) |
|-----------|----------------|--------------|---------------|-------|-------------------------------------------------------|--------------------------------------------------|
| 1         | B106110003     | BOM          | SPECIAL       | 1     | 0.121417                                              | 0.121417                                         |
| 2         | B106330002     | BOM          | SPECIAL       | 1     | 0.098741                                              | 0.098741                                         |
| 3         | B106330003     | BOM          | SPECIAL       | 1     | 0.579389                                              | 0.579389                                         |
| 4         | B106330004     | BOM          | SPECIAL       | 1     | 0.129476                                              | 0.129476                                         |
| 5         | B106600002     | BOM          | SPECIAL       | 1     | 0.166547                                              | 0.166547                                         |
| 6         | B106600003     | BOM          | SPECIAL       | 1     | 0.183211                                              | 0.183211                                         |
| 7         | B106600004     | BOM          | SPECIAL       | 1     | 0.231360                                              | 0.231360                                         |
| 8         | B200000272     | BOM          | NMIL          | 1     | 0.004579                                              | 0.004579                                         |
| 9         | B200000308     | BOM          | NMIL          | 1     | 0.013289                                              | 0.013289                                         |
| 10        | B200000333     | BOM          | NMIL          | 1     | 0.005806                                              | 0.005806                                         |
| 11        | B200000559     | BOM          | NMIL          | 1     | 0.005483                                              | 0.005483                                         |
| 12        | B200000601     | BOM          | NMIL          | 2     | 0.005806                                              | 0.011612                                         |
| 13        | B200010052     | BOM          | NMIL          | 1     | 0.000627                                              | 0.000627                                         |
| 14        | B200010056     | BOM          | NMIL          | 1     | 0.000600                                              | 0.000600                                         |
| 15        | B200010068     | BOM          | NMIL          | 1     | 0.069762                                              | 0.069762                                         |
| 16        | B200010235     | BOM          | NMIL          | 4     | 0.065527                                              | 0.262108                                         |
| 17        | B200010252     | BOM          | NMIL          | 10    | 0.072168                                              | 0.721680                                         |
| 18        | B200010253     | BOM          | NMIL          | 2     | 0.065527                                              | 0.131054                                         |
| 19        | B200010261     | BOM          | NMIL          | 1     | 0.000540                                              | 0.000540                                         |
| 20        | B200010273     | BOM          | NMIL          | 4     | 0.072168                                              | 0.288672                                         |
| 21        | B200020034     | BOM          | NMIL          | 1     | 0.002941                                              | 0.002941                                         |
| 22        | B200020037     | BOM          | NMIL          | 19    | 0.000424                                              | 0.008056                                         |
| 23        | B200020038     | BOM          | NMIL          | 4     | 0.002120                                              | 0.008480                                         |
| 24        | B200040073     | BOM          | NMIL          | 1     | 0.011646                                              | 0.011646                                         |

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| ITEM<br># | Part<br>Number | Ref<br>Desig | Qual<br>Level | Quant | Individual<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) | Total<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) |
|-----------|----------------|--------------|---------------|-------|-------------------------------------------------------|--------------------------------------------------|
| 25        | B200040104     | BOM          | NMIL          | 1     | 0.003751                                              | 0.003751                                         |
| 26        | B200050081     | BOM          | NMIL          | 2     | 0.003013                                              | 0.006026                                         |
| 27        | B200050084     | BOM          | NMIL          | 1     | 0.003013                                              | 0.003013                                         |
| 28        | B200050085     | BOM          | NMIL          | 2     | 0.003013                                              | 0.006026                                         |
| 29        | B200050088     | BOM          | NMIL          | 3     | 0.003013                                              | 0.009039                                         |
| 30        | B200060029     | BOM          | NMIL          | 1     | 0.013678                                              | 0.013678                                         |
| 31        | B200090005     | BOM          | NMIL          | 1     | 0.001476                                              | 0.001476                                         |
| 32        | B200110001     | BOM          | NMIL          | 3     | 0.002896                                              | 0.008688                                         |
| 33        | B200110042     | BOM          | NMIL          | 4     | 0.002210                                              | 0.008840                                         |
| 34        | B200110046     | BOM          | NMIL          | 2     | 0.002896                                              | 0.005792                                         |
| 35        | B200110095     | BOM          | NMIL          | 2     | 0.002896                                              | 0.005792                                         |
| 36        | B200110099     | BOM          | NMIL          | 4     | 0.002896                                              | 0.011584                                         |
| 37        | B200110120     | BOM          | NMIL          | 1     | 0.002896                                              | 0.002896                                         |
| 38        | B200110128     | BOM          | NMIL          | 1     | 0.001551                                              | 0.001551                                         |
| 39        | B200110151     | BOM          | NMIL          | 1     | 0.002896                                              | 0.002896                                         |
| 40        | B200110172     | BOM          | NMIL          | 1     | 0.002896                                              | 0.002896                                         |
| 41        | B200110261     | BOM          | NMIL          | 1     | 0.002210                                              | 0.002210                                         |
| 42        | B200110282     | BOM          | NMIL          | 1     | 0.002896                                              | 0.002896                                         |
| 43        | B200110303     | BOM          | NMIL          | 2     | 0.003039                                              | 0.006078                                         |
| 44        | B200110313     | BOM          | NMIL          | 1     | 0.002896                                              | 0.002896                                         |
| 45        | B200110473     | BOM          | NMIL          | 3     | 0.002896                                              | 0.008688                                         |
| 46        | B200110498     | BOM          | NMIL          | 2     | 0.002210                                              | 0.004420                                         |
| 47        | B200110512     | BOM          | NMIL          | 4     | 0.002210                                              | 0.008840                                         |
| 48        | B200110529     | BOM          | NMIL          | 10    | 0.002210                                              | 0.022100                                         |
| 49        | B200110598     | BOM          | NMIL          | 2     | 0.002210                                              | 0.004420                                         |
| 50        | B200110608     | BOM          | NMIL          | 3     | 0.002835                                              | 0.008505                                         |
| 51        | B200110635     | BOM          | NMIL          | 2     | 0.002210                                              | 0.004420                                         |
| 52        | B200110729     | BOM          | NMIL          | 1     | 0.002026                                              | 0.002026                                         |
| 53        | B200110733     | BOM          | NMIL          | 5     | 0.002026                                              | 0.010130                                         |
| 54        | B200110738     | BOM          | NMIL          | 1     | 0.002026                                              | 0.002026                                         |
| 55        | B200110739     | BOM          | NMIL          | 2     | 0.002026                                              | 0.004052                                         |
| 56        | B200110743     | BOM          | NMIL          | 2     | 0.002026                                              | 0.004052                                         |
| 57        | B200110814     | BOM          | NMIL          | 1     | 0.002026                                              | 0.002026                                         |
| 58        | B200110851     | BOM          | NMIL          | 1     | 0.002026                                              | 0.002026                                         |
| 59        | B200110854     | BOM          | NMIL          | 1     | 0.002026                                              | 0.002026                                         |
| 60        | B200120170     | BOM          | NMIL          | 1     | 0.005001                                              | 0.005001                                         |
| 61        | B200120198     | BOM          | NMIL          | 1     | 0.004765                                              | 0.004765                                         |
| 62        | B200160022     | BOM          | NMIL          | 1     | 0.009218                                              | 0.009218                                         |
| 63        | B200170018     | BOM          | NMIL          | 5     | 0.003177                                              | 0.015885                                         |
| 64        | B200170021     | BOM          | NMIL          | 1     | 0.003177                                              | 0.003177                                         |

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| ITEM<br># | Part<br>Number | Ref<br>Desig | Qual<br>Level | Quant | Individual<br>Failure Rate<br>(F/10^6Hrs) | Total<br>Failure Rate<br>(F/10^6Hrs) |
|-----------|----------------|--------------|---------------|-------|-------------------------------------------|--------------------------------------|
| 65        | B200170032     | BOM          | NMIL          | 2     | 0.003177                                  | 0.006354                             |
| 66        | B200170055     | BOM          | NMIL          | 2     | 0.003721                                  | 0.007442                             |
| 67        | B200180104     | BOM          | NMIL          | 1     | 0.001974                                  | 0.001974                             |
| 68        | B200180108     | BOM          | NMIL          | 1     | 0.001974                                  | 0.001974                             |
| 69        | B200190035     | BOM          | NMIL          | 1     | 0.011714                                  | 0.011714                             |
| 70        | B200190038     | BOM          | NMIL          | 1     | 0.011714                                  | 0.011714                             |
| 71        | B200200074     | BOM          | NMIL          | 4     | 0.007820                                  | 0.031280                             |
| 72        | B200200075     | BOM          | NMIL          | 2     | 0.009676                                  | 0.019352                             |
| 73        | B200200114     | BOM          | NMIL          | 2     | 0.006356                                  | 0.012712                             |
| 74        | B200200170     | BOM          | NMIL          | 1     | 0.007306                                  | 0.007306                             |
| 75        | B200200204     | BOM          | NMIL          | 2     | 0.007306                                  | 0.014612                             |
| 76        | B200200213     | BOM          | NMIL          | 1     | 0.003924                                  | 0.003924                             |
| 77        | B200200224     | BOM          | NMIL          | 2     | 0.004199                                  | 0.008398                             |
| 78        | B200220021     | BOM          | NMIL          | 1     | 0.003440                                  | 0.003440                             |
| 79        | B200220082     | BOM          | NMIL          | 3     | 0.001208                                  | 0.003624                             |
| 80        | B200230288     | BOM          | NMIL          | 1     | 0.001165                                  | 0.001165                             |
| 81        | B200230336     | BOM          | NMIL          | 1     | 0.001661                                  | 0.001661                             |
| 82        | B200230338     | BOM          | NMIL          | 4     | 0.001978                                  | 0.007912                             |
| 83        | B200230469     | BOM          | NMIL          | 1     | 0.016249                                  | 0.016249                             |
| 84        | B200230487     | BOM          | NMIL          | 3     | 0.018501                                  | 0.055503                             |
| 85        | B200230538     | BOM          | NMIL          | 2     | 0.018274                                  | 0.036548                             |
| 86        | B200260266     | BOM          | NMIL          | 1     | 0.000196                                  | 0.000196                             |
| 87        | B200260417     | BOM          | NMIL          | 1     | 0.000219                                  | 0.000219                             |
| 88        | B200260419     | BOM          | NMIL          | 1     | 0.000221                                  | 0.000221                             |
| 89        | B200260430     | BOM          | NMIL          | 1     | 0.000251                                  | 0.000251                             |
| 90        | B200260440     | BOM          | NMIL          | 1     | 0.000223                                  | 0.000223                             |
| 91        | B200280012     | BOM          | NMIL          | 1     | 0.000623                                  | 0.000623                             |
| 92        | B200290011     | BOM          | NMIL          | 2     | 0.002901                                  | 0.005802                             |
| 93        | B200300502     | BOM          | NMIL          | 1     | 0.094536                                  | 0.094536                             |
| 94        | B200300503     | BOM          | NMIL          | 1     | 0.007802                                  | 0.007802                             |
| 95        | B200310012     | BOM          | NMIL          | 1     | 0.005232                                  | 0.005232                             |
| 96        | B200340045     | BOM          | NMIL          | 1     | 0.079074                                  | 0.079074                             |
| 97        | B200370088     | BOM          | NMIL          | 1     | 0.001373                                  | 0.001373                             |
| 98        | B200370115     | BOM          | NMIL          | 1     | 0.001196                                  | 0.001196                             |
| 99        | B210090234     | BOM          | SPECIAL       | 1     | 2.276868                                  | 2.276868                             |
| 100       | B210160059     | BOM          | NMIL          | 1     | 0.010000                                  | 0.010000                             |
| 101       | B210193166     | BOM          | NMIL          | 1     | 0.053839                                  | 0.053839                             |

Total Failure Rate (F/10^6Hrs) : 6.095216

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| ITEM<br>#                                      | Part<br>Number | Ref<br>Desig | Qual<br>Level | Quant | Individual<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) | Total<br>Failure Rate<br>(F/10 <sup>6</sup> Hrs) |
|------------------------------------------------|----------------|--------------|---------------|-------|-------------------------------------------------------|--------------------------------------------------|
| Mean Time (in hours) Between Failures (MTBF) : |                |              |               |       |                                                       | 164,063                                          |