

NIM-S26B

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 1458.643883 MTBF: 685,568 Hours
---------	--

Issue date	QE Manager	Test Engineer
2017-01-07	KJ Wang	Louie Lee

Reliability Prediction (MTBF)

I . Model Name: NIM-S26B

II . Prediction Date: January. 7th, 2017

III . Prediction Site: AAEON Q.E. Dept.

IV . Predicted by: Louie Lee

V . Equipment: Windchill Quality Solutions 10.1

VI. Simulation Environment:

- Temperature: 30 degrees C
- Standard: Telcordia (Bellcore) Standard

VII. Term and Definition:

- Unit : An assembly of device.
- Duty Cycle : Used to specify the percentage of time that the element is in an on state, and it is equal to the percentage of total time the item is in the active environment.
- Quantity : The quantity of the selected item.
- Failure Rate : Used to specify that the failure rate is to be calculated based the selected Calculation models. The Failure rate multiplier is 1000000000.
- MTBF : MTBF is always specified in hours.

VIII. Prediction Result:

NIM-S26B (9697S26B01-D):

- Failure Rate: 1458.643883

- MTBF: 685,568 Hours

**AAEON Reliability Prediction
Summary**

File Name: NIM-S26B.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 1458.643883
MTBF (hrs): 685,568
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
NIM-S26B	9697S26B01-D		1	1458.643883	685,568

File Name: NIM-S26B.rfp
Assembly: 9697S26B01-D
Ref Des:
Description:

Failure Rate: 1458.643883
MTBF (hrs): 685,568
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R120,R60,R65,R68		2.547039	4	82309758.689546
1050501054	Resistor	R131,R133		2.547039	2	154078778.388085
1050502034-00	Resistor	R132		2.547039	1	282340674.079668
1050502204	Resistor	R145,R153,R73,R77,R82,R83		2.547039	6	56573956.677649
1050503324	Resistor	R121,R129,R150,R152,R56,R57,R64,R67		2.547039	8	43225424.698300
1050504764	Resistor	R137,R138		2.547039	2	154078778.388085
1050508224	Resistor	R146,R158,R48,R49,R51,R55,R58,R59,R61,R62,R63,R66,R76,R78,R79,R84		2.547039	16	22425139.809646
1050510034	Resistor	R100,R123,R127,R128,R151,R154,R156,R160,R161,R70,R71,R74		2.547039	12	29507083.749401
1050524004	Resistor	R88,R89,R90,R91,R92,R93,R94,R95		2.547039	8	43225424.698300
1050549904	Resistor	R125,R126		2.547039	2	154078778.388085
1050590964	Resistor	R11		2.547039	1	282340674.079668
1050700002	Resistor	FB4,FB5		2.547039	2	154078778.388085
1059700001	Resistor	R27		2.547039	1	282340674.079668
105A447510	Resistor	R40		2.547039	1	282340674.079668
105A500139	Resistor	R85		2.547039	1	282340674.079668
105A501039	Resistor	R75		2.547039	1	282340674.079668
105A503309	Resistor	R46,R47		2.547039	2	154078778.388085
105A508223	Resistor	R163,R164,R167,R168,R173,R174,R175,R177		2.547039	8	43225424.698300
105A508233	Resistor	R130		2.547039	1	282340674.079668
105A509133	Resistor	R122		2.547039	1	282340674.079668

File Name: NIM-S26B.rfp
Assembly: 9697S26B01-D
Ref Des:
Description:

Failure Rate: 1458.643883
MTBF (hrs): 685,568
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
105A510009	Resistor	R118,R124,R134, R140,R142,R147, R148,R155,R159,R50, R52,R54,R69,R72, R80		2.547039	15	23852782.943395
105A534823	Resistor	R119		2.547039	1	282340674.079668
105A547509	Resistor	R41		2.547039	1	282340674.079668
105A549969	Resistor	R108,R109		2.547039	2	154078778.388085
105A700003	Resistor	R135,R136		2.547039	2	154078778.388085
105A700009	Resistor	R101,R115,R117,R13, R14,R15,R16,R165, R166,R17,R172,R178, R18,R19,R20,R21, R22,R23,R24,R25, R26,R8,R86,R87,R9, R98		2.547039	26	14061076.827148
105A700139	Resistor	R4,R7		2.547039	2	154078778.388085
105A701039	Resistor	R30,R31,R32,R33, R42,R43,R44,R45, R96		2.547039	9	38754445.632391
1129522790	Capacitor	C96,C97		1.128806	2	375289731.076049
1129601080	Capacitor	C94,C95		1.128806	2	375289731.076049
11A4420080	Capacitor	C37,C38		1.128806	2	375289731.076049
11B2710060	Capacitor	C214,C215,C216, C217		1.128806	4	196873384.410843
11C1410440	Capacitor	C124,C29,C47,C48, C49,C50,C51,C52, C57,C58,C59,C60, C61,C62,C67,C68, C69,C70,C71,C72		1.128806	20	41950408.034165
11C2510480	Capacitor	C4,C5,C6		1.128806	3	257514172.353070
11C4522191	Capacitor	C90,C91		1.128806	2	375289731.076049
11C4547190	Capacitor	C39,C40,C41,C42, C43,C44,C45,C46		1.128806	8	101746760.035398

File Name: NIM-S26B.rfp
Assembly: 9697S26B01-D
Ref Des:
Description:

Failure Rate: 1458.643883
MTBF (hrs): 685,568
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11C9510050	Capacitor	C10,C139,C140,C146,C147,C170,C186,C198,C84,C98		1.128806	10	82101057.548118
11C9510490	Capacitor	C11,C12,C161,C166,C7,C8,C85,C87,C89,C9,C92,C93		1.128806	12	68856937.301178
11E2501690	Capacitor	C79,C80		1.128806	2	375289731.076049
11E2622021	Capacitor	C81,C82,C86,C88		1.128806	4	196873384.410843
11E9522490	Capacitor	C13,C14,C15,C16,C17,C18,C19,C20,C21,C22,C23,C24,C25,C26,C27,C28		1.128806	16	52112480.802928
11E9622050	Capacitor	C171,C187,C212,C213,C30,C31,C35,C36,C53,C54,C55,C56,C63,C64,C65,C66,C73,C74,C75,C76		1.128806	20	41950408.034165
11E9622080	Capacitor	C162,C163,C164,C168,C169		1.128806	5	159367490.199266

File Name: NIM-S26B.rfp
Assembly: 9697S26B01-D
Ref Des:
Description:

Failure Rate: 1458.643883
MTBF (hrs): 685,568
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
11EB501040	Capacitor	C100,C101,C102, C103,C104,C105, C106,C107,C108, C109,C110,C111, C112,C113,C114, C115,C116,C117, C118,C119,C120, C121,C122,C123, C125,C126,C127, C128,C129,C130, C131,C132,C133, C134,C135,C136, C137,C138,C141, C142,C143,C144, C145,C148,C149, C150,C151,C152,		1.128806	98	8817133.417139
121110106Z	Inductor	L7,L8		4.944252	2	83201062.149749
121110226X	Inductor	L9		4.944252	1	154760964.143460
1212308054	Inductor	FB10,FB11,F B12, FB13,FB14,F B9		4.944252	6	30055900.223009
12123C001A	Inductor	FB1,FB2,FB3		4.944252	3	57363284.375370
12310025A2	Miscellaneous	Y1		19.200000	1	23844262.770939
1304200043	Optical Device	LED3,LED5		79.003355	2	3783722.582110
1304300140	Optical Device	LED4,LED6		79.003355	2	3783722.582110
1430006710	Integrated Circuit	U6,U7		43.803003	2	6834791.244197
1440038080	Integrated Circuit	U4		43.803003	1	11739202.588727
14400X7103	Integrated Circuit	U2		43.803003	1	11739202.588727
14S4910400	Integrated Circuit	U5		26.018600	1	25551442.237972
14S5A12509	Integrated Circuit	U3		26.018600	1	25551442.237972
14S6203205	Integrated Circuit			11.063278	1	58231413.220643
14S6203205	Integrated Circuit	U1		11.063278	1	58231413.220643
1654903830	Connection	CN4,CN5		16.184835	2	20390152.380746