

NIM-S26C

Reliability Prediction Report (MTBF)

Summary	Failure Rate: 2184.966600 MTBF: 457,673 Hours
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Issue date	QE Manager	Test Engineer
2017-01-07	KJ Wang	Louie Lee

Reliability Prediction (MTBF)

I . Model Name: NIM-S26C

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-S26C (9697S26C01-D):

- Failure Rate: 2184.966600

- MTBF: 457,673 Hours

File Name: NIM-S26C.rfp
Duty Cycle: 100
Calculation Model: Telcordia Issue 2
Method: Method I Case 3

Failure Rate: 2184.966600
MTBF (hrs): 457,673
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Assembly Name	Part Number	Ref Des	Quantity	Failure Rate	MTBF
NIM-S26C	9697S26C01-D		1	2184.966600	457,673

File Name: NIM-S26C.rfp
Assembly: 9697S26C01-D
Ref Des:
Description:

Failure Rate: 2184.966600
MTBF (hrs): 457,673
Temperature: 30
Environment: GF, GU - Ground Fixed, Uncontrolled

Part Number	Category	Ref Des	Tem.Rise	Unit Failure Rate	Quantity	MTBF,Unit
1050501004	Resistor	R154,R161,R189, R191,R66,R70,R75, R80		2.547039	8	43225424.698300
1050501054	Resistor	R259		2.547039	1	282340674.079668
1050501534-00	Resistor	R265		2.547039	1	282340674.079668
1050502204	Resistor	R182,R194,R88,R90, R95,R99		2.547039	6	56573956.677649
1050503324	Resistor	R153,R162,R188, R190,R60,R69,R74, R79		2.547039	8	43225424.698300
1050504724	Resistor	R299		2.547039	1	282340674.079668
1050505134-00	Resistor	R271		2.547039	1	282340674.079668
1050508224	Resistor	R183,R199,R50,R51, R52,R57,R68,R71, R72,R73,R77,R78, R87,R91,R92,R96		2.547039	16	22425139.809646
1050510034	Resistor	R115,R150,R192, R193,R195,R196, R202,R282,R283,R83, R84,R89		2.547039	12	29507083.749401
1050524004	Resistor	R105,R106,R107, R108,R109,R110, R111,R112		2.547039	8	43225424.698300
1050561934	Resistor	R289		2.547039	1	282340674.079668
1050590964	Resistor	R14		2.547039	1	282340674.079668
1050700002	Resistor	R253,R257,R275		2.547039	3	107020754.986850
105A447510	Resistor	R47		2.547039	1	282340674.079668
105A500103	Resistor	R268,R286		2.547039	2	154078778.388085
105A500139	Resistor	R102		2.547039	1	282340674.079668
105A501039	Resistor	R273,R86		2.547039	2	154078778.388085
105A501529	Resistor	R212,R217		2.547039	2	154078778.388085
105A502263	Resistor	R260		2.547039	1	282340674.079668
105A503309	Resistor	R44,R45		2.547039	2	154078778.388085

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105A508223	Resistor	R219,R220,R221, R222,R223,R224, R230,R234,R235, R236,R237,R238, R239,R240,R244, R245		2.547039	16	22425139.809646
105A510009	Resistor	R149,R158,R163, R170,R176,R177, R184,R197,R201,R54, R55,R58,R82,R85, R93		2.547039	15	23852782.943395
105A510223	Resistor	R290		2.547039	1	282340674.079668
105A514014	Resistor	R272		2.547039	1	282340674.079668
105A545323	Resistor	R288		2.547039	1	282340674.079668
105A547509	Resistor	R39		2.547039	1	282340674.079668
105A549969	Resistor	R121,R122		2.547039	2	154078778.388085
105A700003	Resistor	R255,R263,R270, R280,R296,R297		2.547039	6	56573956.677649
105A700009	Resistor	R10,R103,R104,R11, R114,R117,R112,R15, R16,R17,R18,R19, R20,R200,R202,R225, R228,R229,R23,R231, R233,R241,R243, R246,R249,R262, R266,R277,R284, R293,R298,R300, R305,R5,R6,R7,R8, R9		2.547039	38	9736567.158302
105A700139	Resistor	R1,R285,R4		2.547039	3	107020754.986850
105A701039	Resistor	R120,R25,R26,R27, R28,R40,R41,R42, R43		2.547039	9	38754445.632391

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105A710039	Resistor	R274,R287,R292		2.547039	3	107020754.986850
105A747009	Resistor	R210,R215,R232, R242		2.547039	4	82309758.689546
1121501691	Capacitor	C248,C254,C259		1.128806	3	257514172.353070
1129710391	Capacitor	C251,C262		1.128806	2	375289731.076049
1189656196	Capacitor	C249,C269		4.744484	2	86049450.747498
118A6221B0	Capacitor	C261		4.744484	1	159663026.715137
11A4420080	Capacitor	C31,C32		1.128806	2	375289731.076049
11C1410440	Capacitor	C135,C30,C33,C34,C35,C36,C37,C38,C39,C40,C57,C58,C59,C60,C61,C62,C63,C64,C65,C66,C67,C68,C69,C70,C71,C72		1.128806	26	32480878.530766
11C2510480	Capacitor	C245,C4,C5,C6		1.128806	4	196873384.410843
11C4522290	Capacitor	C253,C264		1.128806	2	375289731.076049
11C4547190	Capacitor	C73,C74,C75,C76,C77,C78,C79,C80		1.128806	8	101746760.035398
11C9510050	Capacitor	C154,C155,C162,C163,C179,C180,C201,C202,C260,C7, C84		1.128806	11	74892583.279796
11C9510490	Capacitor	C10,C12,C13,C8,C83, C9		1.128806	6	133979725.056342
11E1510050	Capacitor	C266,C268,C270		1.128806	3	257514172.353070
11E2501080	Capacitor	C246,C247		1.128806	2	375289731.076049
11E2501690	Capacitor	C255,C256,C271, C500		1.128806	4	196873384.410843
11E2510010	Capacitor	C243,C244,C257, C258		1.128806	4	196873384.410843
11E4547610	Capacitor	C265		1.128806	1	704977644.692287

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11E9522490	Capacitor	C14,C15,C16 ,C17, C18,C19,C20 ,C21, C22,C23,C24 ,C25, C26,C27,C28 ,C29		1.128806	16	52112480.802928
11E9610080	Capacitor	C250		1.128806	1	704977644.692287
11E9622050	Capacitor	C213,C222,C 223, C224,C225,C 226, C227,C41,C4 2,C43, C44,C45,C46 ,C47, C48,C49,C50 ,C51, C52,C53,C54 ,C55, C56,C98		1.128806	24	35120617.936543

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11EB501040	Capacitor	C100,C101,C102, C103,C104,C105, C106,C107,C108, C109,C110,C115, C119,C120,C121, C122,C123,C124, C125,C126,C127, C128,C129,C130, C134,C136,C137, C138,C139,C140, C141,C142,C143, C144,C145,C146, C147,C148,C149, C156,C157,C158, C159,C161,C164, C165,C166,C167,		1.128806	99	8729159.738216
121110106Z	Inductor	L2		4.944252	1	154760964.143460
121110156P	Inductor	L3		4.944252	1	154760964.143460
121110226X	Inductor	L4		4.944252	1	154760964.143460
1212308054	Inductor	FB10,FB3,FB4,FB5, FB6,FB7,FB8,FB9		4.944252	8	22874049.098230
12123A000B	Inductor	FB12,FB14,FB15		4.944252	3	57363284.375370
12123C001A	Inductor	FB1,FB11,FB2		4.944252	3	57363284.375370
123132505D	Miscellaneous	Y1		19.200000	1	23844262.770939
1301005440	Semiconductor	D1		7.793411	1	92807310.010983
1304200043	Optical Device	LED10,LED4,LED6, LED8		79.003355	4	2148119.082046
1304300140	Optical Device	LED3,LED5,LED7, LED9		79.003355	4	2148119.082046
1315060300	Semiconductor	Q1,Q2,Q7,Q8		22.463360	4	9270607.712006
1315070020	Semiconductor	Q5		22.463360	1	31642600.748419

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1315200312	Semiconductor	Q4,Q6		22.463360	2	17315095.066101
1430082021	Integrated Circuit	U12		43.803003	1	11739202.588727
1440038080	Integrated Circuit	U5		43.803003	1	11739202.588727
14400X7102	Integrated Circuit	U3		43.803003	1	11739202.588727
1463S26A00	Integrated Circuit	U2		11.063278	1	58231413.220643
14S2321900	Integrated Circuit	U11		43.803003	1	11739202.588727
14S4910400	Integrated Circuit	U6		26.018600	1	25551442.237972
14S5A12509	Integrated Circuit	U4		26.018600	1	25551442.237972
14S6203205	Integrated Circuit			11.063278	1	58231413.220643
1654902037	Connection	CN4,CN5,CN6,CN7		16.184835	4	11344857.509064
1655004018	Connection	CN3		16.184835	1	35685591.360212