

MTBF Reliability Report

SQFlash 820 2.5” SATA SSD

Reliability Prediction	
Operating Temperature	25C
Failure Rate (FIT)	967.444306
MTBF (hrs)	1,033,651.23 hr

Part Number	System
Reference Des	
Date	九月 13, 2012
Environment	GB, GC - Ground Benign, Controlled
Temperature	25.00



Description	Top-level assembly
File Name	PA5330020S-00000-00002
Time	4:37 下午
Failure Rate	967.444306
MTBF	1,033,651.23

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
System	System		1.00	967.444306	1,033,651.23
			1.00	967.444306	1,033,651.23

Standard Reliability Prediction Report

Part Number
Reference Des

Date 九月 13, 2012
Environment GB, GC - Ground Benign, Controlled
Temperature 25.00



Description

File Name PA5330020S-00000-00002

Time 4:37 下午

Failure Rate 967.444306

MTBF 1,033,651.23

Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
00-00S0000000	Resistor		0.500000	11.00	5.500000
00-00S0000003	Resistor		0.500000	11.00	5.500000
00-00S0000013	Resistor		0.500000	1.00	0.500000
00-00S0000038	Resistor		0.500000	2.00	1.000000
00-00S0000044	Resistor		0.500000	6.00	3.000000
00-00S0000045	Resistor		0.500000	15.00	7.500000
00-00S0000047	Resistor		0.500000	2.00	1.000000
00-00S0000056	Resistor		0.500000	3.00	1.500000
00-00S0000061	Resistor		0.500000	1.00	0.500000
00-00S0000062	Resistor		0.500000	2.00	1.000000
00-00S0000064	Resistor		0.500000	1.00	0.500000
00-00S0000066	Resistor		0.500000	1.00	0.500000
00-00S0000092	Resistor		0.500000	1.00	0.500000
00-00S0000101	Resistor		0.500000	2.00	1.000000
00-00S0000182	Resistor		0.500000	1.00	0.500000
00-00S0000188	Resistor		0.500000	2.00	1.000000
00-00S0000196	Resistor		0.500000	2.00	1.000000
00-01S0000008	Resistor		0.500000	28.00	14.000000
00-01S0000010	Resistor		0.500000	1.00	0.500000
00-10S0000000	Capacitor		4.919062	3.00	14.757186
00-10S0000004	Capacitor		4.919062	3.00	14.757186
00-10S0000005	Capacitor		4.919062	2.00	9.838124
00-10S0000006	Capacitor		4.919062	8.00	39.352496
00-10S0000011	Capacitor		4.919062	4.00	19.676248
00-10S0000037	Capacitor		4.919062	4.00	19.676248
00-10S0000049	Capacitor		4.919062	4.00	19.676248
00-10S0000054	Capacitor		4.919062	2.00	9.838124
00-10S0000056	Capacitor		4.919062	2.00	9.838124
00-10S0000061	Capacitor		4.919062	2.00	9.838124
00-10S0000066	Capacitor		4.919062	36.00	177.106320
00-10S0000067	Capacitor		4.919062	13.00	63.947806
00-20S0000005	Inductor		0.416183	3.00	1.248548
00-30S0000020	Inductor		0.416183	2.00	0.832366
00-30S0000021	Inductor		0.416183	2.00	0.832366
00-40S0000018	Semiconductor		6.000000	1.00	6.000000
00-50S0000008	Miscellaneous		0.500000	1.00	0.500000
01-00S0000059	Miscellaneous		25.000000	1.00	25.000000
02-R0S0000001	Semiconductor		60.000000	1.00	60.000000
04-01S0000016	Connection		0.000000	1.00	0.000000
06-00S0000090	Integrated Circuit		84.379324	1.00	84.379324
06-00S0000099	Integrated Circuit		84.379324	1.00	84.379324
06-03S0000065	Integrated Circuit		21.789271	1.00	21.789271
18-A002000015	Connection		4.904495	1.00	4.904495
22-08S8AA10I0	Integrated Circuit		67.638458	1.00	67.638458
30-T0J70HP002	Integrated Circuit		21.789271	8.00	174.314168

Product Information

Model: SQF-S25 820

Prediction Method

Analysis Software: [Relex7.3](#)

Analysis Method: [Telcordia SR-332, Reliability Prediction of Electronic Equipment.](#)

Parts Coverage

SLC

Product	Advantech PN
SQF 2.5" SSD 820 16G SLC (0~70°C)	SQF-S25S4-16G-S8C
SQF 2.5" SSD 820 32G SLC (0~70°C)	SQF-S25S8-32G-S8C
SQF 2.5" SSD 820 64G SLC (0~70°C)	SQF-S25S8-64G-S8C
SQF 2.5" SSD 820 128G SLC (0~70°C)	SQF-S25S8-128G-S8C
SQF 2.5" SSD 820 256G SLC (0~70°C)	SQF-S25S8-256G-S8C
SQF 2.5" SSD 820 16G SLC (-40~85°C)	SQF-S25S4-16G-S8E
SQF 2.5" SSD 820 32G SLC (-40~85°C)	SQF-S25S8-32G-S8E
SQF 2.5" SSD 820 64G SLC (-40~85°C)	SQF-S25S8-64G-S8E
SQF 2.5" SSD 820 128G SLC (-40~85°C)	SQF-S25S8-128G-S8E
SQF 2.5" SSD 820 256G SLC (-40~85°C)	SQF-S25S8-256G-S8E
SQF 2.5" SSD 820-S 16G SLC (0~70°C)	SQF-S25S4-16G-A8C
SQF 2.5" SSD 820-S 32G SLC (0~70°C)	SQF-S25S8-32G-A8C
SQF 2.5" SSD 820-S 64G SLC (0~70°C)	SQF-S25S8-64G-A8C
SQF 2.5" SSD 820-S 128G SLC (0~70°C)	SQF-S25S8-128G-A8C
SQF 2.5" SSD 820-S 256G SLC (0~70°C)	SQF-S25S8-256G-A8C
SQF 2.5" SSD 820-S 16G SLC (-40~85°C)	SQF-S25S4-16G-A8E
SQF 2.5" SSD 820-S 32G SLC (-40~85°C)	SQF-S25S8-32G-A8E
SQF 2.5" SSD 820-S 64G SLC (-40~85°C)	SQF-S25S8-64G-A8E
SQF 2.5" SSD 820-S 128G SLC (-40~85°C)	SQF-S25S8-128G-A8E
SQF 2.5" SSD 820-S 256G SLC (-40~85°C)	SQF-S25S8-256G-A8E

Ultra MLC

Product	Advantech PN
SQF 2.5" SSD 820 16G UMLC (0~70°C)	SQF-S25U8-16G-S8C
SQF 2.5" SSD 820 32G UMLC (0~70°C)	SQF-S25U8-32G-S8C
SQF 2.5" SSD 820 40G UMLC (0~70°C)	SQF-S25U5-40G-S8C
SQF 2.5" SSD 820 64G UMLC (0~70°C)	SQF-S25U8-64G-S8C
SQF 2.5" SSD 820 80G UMLC (0~70°C)	SQF-S25U5-80G-S8C
SQF 2.5" SSD 820 128G UMLC (0~70°C)	SQF-S25U8-128G-S8C
SQF 2.5" SSD 820 160G UMLC (0~70°C)	SQF-S25U5-160G-S8C
SQF 2.5" SSD 820 256G UMLC (0~70°C)	SQF-S25U8-256G-S8C
SQF 2.5" SSD 820 320G UMLC (0~70°C)	SQF-S25U5-320G-S8C
SQF 2.5" SSD 820 512G UMLC (0~70°C)	SQF-S25U8-512G-S8C
SQF 2.5" SSD 820 16G UMLC (-40~85°C)	SQF-S25U8-16G-S8E

SQF 2.5" SSD 820 32G UMLC (-40~85°C)	SQF-S25U8-32G-S8E
SQF 2.5" SSD 820 40G UMLC (-40~85°C)	SQF-S25U5-40G-S8E
SQF 2.5" SSD 820 64G UMLC (-40~85°C)	SQF-S25U8-64G-S8E
SQF 2.5" SSD 820 80G UMLC (-40~85°C)	SQF-S25U5-80G-S8E
SQF 2.5" SSD 820 128G UMLC (-40~85°C)	SQF-S25U8-128G-S8E
SQF 2.5" SSD 820 160G UMLC (-40~85°C)	SQF-S25U5-160G-S8E
SQF 2.5" SSD 820 256G UMLC (-40~85°C)	SQF-S25U8-256G-S8E
SQF 2.5" SSD 820-S 16G UMLC (0~70°C)	SQF-S25U8-16G-A8C
SQF 2.5" SSD 820-S 32G UMLC (0~70°C)	SQF-S25U8-32G-A8C
SQF 2.5" SSD 820-S 64G UMLC (0~70°C)	SQF-S25U8-64G-A8C
SQF 2.5" SSD 820-S 128G UMLC (0~70°C)	SQF-S25U8-128G-A8C
SQF 2.5" SSD 820-S 256G UMLC (0~70°C)	SQF-S25U8-256G-A8C
SQF 2.5" SSD 820-S 16G UMLC (-40~85°C)	SQF-S25U8-16G-A8E
SQF 2.5" SSD 820-S 32G UMLC (-40~85°C)	SQF-S25U8-32G-A8E
SQF 2.5" SSD 820-S 64G UMLC (-40~85°C)	SQF-S25U8-64G-A8E
SQF 2.5" SSD 820-S 128G UMLC (-40~85°C)	SQF-S25U8-128G-A8E
SQF 2.5" SSD 820-S 256G UMLC (-40~85°C)	SQF-S25U8-256G-A8E

MLC

Product	Advantech PN
SQF 2.5" SSD 820 16G MLC (0~70°C)	SQF-S25M4-16G-S8C
SQF 2.5" SSD 820 32G MLC (0~70°C)	SQF-S25M8-32G-S8C
SQF 2.5" SSD 820 40G MLC (0~70°C)	SQF-S25M5-40G-S8C
SQF 2.5" SSD 820 64G MLC (0~70°C)	SQF-S25M8-64G-S8C
SQF 2.5" SSD 820 80G MLC (0~70°C)	SQF-S25M5-80G-S8C
SQF 2.5" SSD 820 128G MLC (0~70°C)	SQF-S25M8-128G-S8C
SQF 2.5" SSD 820 160G MLC (0~70°C)	SQF-S25M5-160G-S8C
SQF 2.5" SSD 820 256G MLC (0~70°C)	SQF-S25M8-256G-S8C
SQF 2.5" SSD 820 320G MLC (0~70°C)	SQF-S25M5-320G-S8C
SQF 2.5" SSD 820 512G MLC (0~70°C)	SQF-S25M8-512G-S8C
SQF 2.5" SSD 820 640G MLC (0~70°C)	SQF-S25M5-640G-S8C
SQF 2.5" SSD 820 1T MLC (0~70°C)	SQF-S25M8-1T-S8C
SQF 2.5" SSD 820 16G MLC (-40~85°C)	SQF-S25M4-16G-S8E
SQF 2.5" SSD 820 32G MLC (-40~85°C)	SQF-S25M8-32G-S8E
SQF 2.5" SSD 820 40G MLC (-40~85°C)	SQF-S25M5-40G-S8E
SQF 2.5" SSD 820 64G MLC (-40~85°C)	SQF-S25M8-64G-S8E
SQF 2.5" SSD 820 80G MLC (-40~85°C)	SQF-S25M5-80G-S8E
SQF 2.5" SSD 820 128G MLC (-40~85°C)	SQF-S25M8-128G-S8E
SQF 2.5" SSD 820 160G MLC (-40~85°C)	SQF-S25M5-160G-S8E
SQF 2.5" SSD 820 256G MLC (-40~85°C)	SQF-S25M8-256G-S8E
SQF 2.5" SSD 820 320G MLC (-40~85°C)	SQF-S25M5-320G-S8E
SQF 2.5" SSD 820 512G MLC (-40~85°C)	SQF-S25M8-512G-S8E
SQF 2.5" SSD 820-S 8G MLC (0~70°C)	SQF-S25M2-8G-A8C
SQF 2.5" SSD 820-S 16G MLC (0~70°C)	SQF-S25M4-16G-A8C

SQF 2.5" SSD 820-S 32G MLC (0~70°C)	SQF-S25M8-32G-A8C
SQF 2.5" SSD 820-S 40G MLC (0~70°C)	SQF-S25M5-40G-A8C
SQF 2.5" SSD 820-S 64G MLC (0~70°C)	SQF-S25M8-64G-A8C
SQF 2.5" SSD 820-S 80G MLC (0~70°C)	SQF-S25M5-80G-A8C
SQF 2.5" SSD 820-S 128G MLC (0~70°C)	SQF-S25M8-128G-A8C
SQF 2.5" SSD 820-S 160G MLC (0~70°C)	SQF-S25M5-160G-A8C
SQF 2.5" SSD 820-S 256G MLC (0~70°C)	SQF-S25M8-256G-A8C
SQF 2.5" SSD 820-S 320G MLC (0~70°C)	SQF-S25M5-320G-A8C
SQF 2.5" SSD 820-S 512G MLC (0~70°C)	SQF-S25M8-512G-A8C
SQF 2.5" SSD 820-S 8G MLC (-40~85°C)	SQF-S25M2-8G-A8E
SQF 2.5" SSD 820-S 16G MLC (-40~85°C)	SQF-S25M4-16G-A8E
SQF 2.5" SSD 820-S 32G MLC (-40~85°C)	SQF-S25M8-32G-A8E
SQF 2.5" SSD 820-S 40G MLC (-40~85°C)	SQF-S25M5-40G-A8E
SQF 2.5" SSD 820-S 64G MLC (-40~85°C)	SQF-S25M8-64G-A8E
SQF 2.5" SSD 820-S 80G MLC (-40~85°C)	SQF-S25M5-80G-A8E
SQF 2.5" SSD 820-S 128G MLC (-40~85°C)	SQF-S25M8-128G-A8E
SQF 2.5" SSD 820-S 160G MLC (-40~85°C)	SQF-S25M5-160G-A8E
SQF 2.5" SSD 820-S 256G MLC (-40~85°C)	SQF-S25M8-256G-A8E
SQF 2.5" SSD 820-S 320G MLC (-40~85°C)	SQF-S25M5-320G-A8E
SQF 2.5" SSD 820-S 512G MLC (-40~85°C)	SQF-S25M8-512G-A8E