

MTBF Reliability Report
SQFlash 840 2.5” SATA SSD

Reliability Prediction	
Operating Temperature	30℃
Failure Rate (FIT)	494.186377
MTBF (hrs)	2,023,527hr

Product Information

Model: SQF-S25 840

Prediction Method

Analysis Software: [Relex7.3](#)

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

Parts Coverage

Product	Advantech PN
SQF 2.5" SATA SSD 840 240G 3D TLC (BiCS3) (0~70°C)	SQF-S25V4-240G-SCC
SQF 2.5" SATA SSD 840 480G 3D TLC (BiCS3) (0~70°C)	SQF-S25V8-480G-SCC
SQF 2.5" SATA SSD 840 960G 3D TLC (BiCS3) (0~70°C)	SQF-S25V8-960G-SCC
SQF 2.5" SATA SSD 840 1920G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-1K9G-SCC
SQF 2.5" SATA SSD 840 3840G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-3K8G-SCC
SQF 2.5" SATA SSD 840 7680G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-7K6G-SCC
SQF 2.5" SATA SSD 840 240G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V4-240G-SCE
SQF 2.5" SATA SSD 840 480G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V8-480G-SCE
SQF 2.5" SATA SSD 840 960G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V8-960G-SCE
SQF 2.5" SATA SSD 840 1920G 3D TLC (BiCS3) (-40~85°C)	SQF-S25VF-1K9G-SCE
SQF 2.5" SATA SSD 840 3840G 3D TLC (BiCS3) (-40~85°C)	SQF-S25VF-3K8G-SCE
SQF 2.5" SATA SSD 840 7680G 3D TLC (BiCS4) (-40~85°C)	SQF-S25VF-7K6G-SCE
SQF 2.5" SATA SSD 840 (OPAL) 240G 3D TLC (BiCS3) (0~70°C)	SQF-S25V4-240GASCC
SQF 2.5" SATA SSD 840 (OPAL) 480G 3D TLC (BiCS3) (0~70°C)	SQF-S25V8-480GASCC
SQF 2.5" SATA SSD 840 (OPAL) 960G 3D TLC (BiCS3) (0~70°C)	SQF-S25V8-960GASCC
SQF 2.5" SATA SSD 840 (OPAL) 1920G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-1K9GASCC
SQF 2.5" SATA SSD 840 (OPAL) 3840G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-3K8GASCC
SQF 2.5" SATA SSD 840 (OPAL) 7680G 3D TLC (BiCS3) (0~70°C)	SQF-S25VF-7K6GASCC
SQF 2.5" SATA SSD 840 (OPAL) 240G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V4-240GASCE
SQF 2.5" SATA SSD 840 (OPAL) 480G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V8-480GASCE
SQF 2.5" SATA SSD 840 (OPAL) 960G 3D TLC (BiCS3) (-40~85°C)	SQF-S25V8-960GASCE
SQF 2.5" SATA SSD 840 (OPAL) 1920G 3D TLC (BiCS3) (-40~85°C)	SQF-S25VF-1K9GASCE
SQF 2.5" SATA SSD 840 (OPAL) 3840G 3D TLC (BiCS3) (-40~85°C)	SQF-S25VF-3K8GASCE
SQF 2.5" SATA SSD 840 (OPAL) 7680G 3D TLC (BiCS4) (-40~85°C)	SQF-S25VF-7K6GASCE

Part Number	Reference Des Date	Environment	Temperature	Description
SQF-S25VF-7K6G-SCC	May, 13, 2019	GB, GC-Ground Benign, Controlled	30.00 °C	BGA-level assembly
	Time	Failure Rate	MTBF	
	11:27 AM	494.186377	2,023,527 hrs	

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
SQF-S25VF-7K6G-SCC	SQF-S25VF-7K6G-SCC		1.00	494.186377	2,023,527
			1.00	494.186377	2,023,527
Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
00-00S0000000	Resistor		0.500000	7.00	3.500000
00-00S0000009	Resistor		0.500000	4.00	2.000000
00-00S0000012	Resistor		0.500000	3.00	1.500000
00-00S0000025	Resistor		0.500000	2.00	1.000000
00-00S0000026	Resistor		0.500000	1.00	0.500000
00-00S0000029	Resistor		0.500000	1.00	0.500000
00-00S0000044	Resistor		0.500000	2.00	1.000000
00-00S0000045	Resistor		0.500000	4.00	2.000000
00-00S0000059	Resistor		0.500000	2.00	1.000000
00-00S0000060	Resistor		0.500000	1.00	0.500000
00-00S0000064	Resistor		0.500000	1.00	0.500000
00-00S0000076	Resistor		0.500000	6.00	3.000000
00-00S0000173	Resistor		0.500000	1.00	0.500000
00-00S0000192	Resistor		0.500000	1.00	0.500000
00-00S0000194	Resistor		0.500000	2.00	1.000000
00-00S0000195	Resistor		0.500000	2.00	1.000000
00-00S0000196	Resistor		0.500000	1.00	0.500000
00-00S0000197	Resistor		0.500000	4.00	2.000000
00-00S0000198	Resistor		0.500000	1.00	0.500000
00-00S0000216	Resistor		0.500000	2.00	1.000000
00-00S0000234	Resistor		0.500000	2.00	1.000000
00-00S0000295	Resistor		0.500000	1.00	0.500000
00-01S0000004	Resistor		0.500000	5.00	2.500000
00-10S0000004	Capacitor		1.000000	1.00	1.000000
00-10S0000049	Capacitor		1.000000	1.00	1.000000
00-10S0000054	Capacitor		1.000000	1.00	1.000000
00-10S0000056	Capacitor		1.000000	29.00	29.000000
00-10S0000062	Capacitor		1.000000	9.00	9.000000
00-10S0000082	Capacitor		1.000000	59.00	59.000000
00-10S0000089	Capacitor		1.000000	24.00	24.000000
00-10S0000097	Capacitor		1.000000	2.00	2.000000
00-10S0000103	Capacitor		1.000000	2.00	2.000000
00-10S0000111	Capacitor		1.000000	2.00	2.000000
00-10S0000112	Capacitor		1.000000	4.00	4.000000
00-10S0000136	Capacitor		1.000000	1.00	1.000000
00-20S0000021	Inductor		0.500000	2.00	1.000000
00-30S0000084	Inductor		0.500000	4.00	2.000000
00-30S0000085	Inductor		0.500000	1.00	0.500000
00-30S0000086	Inductor		0.500000	1.00	0.500000
00-40S0000034	Semiconductor		6.000000	3.00	18.000000
00-40S0000041	Semiconductor		6.000000	1.00	6.000000
01-00S0000062	Miscellaneous		25.000000	1.00	25.000000
02-R0S0000001	Semiconductor		6.000000	2.00	12.000000
04-01S0000017	Connection		0.000000	1.00	0.000000
06-00S0000121	Integrated Circuit		84.379324	1.00	84.379324
06-04S0000011	Integrated Circuit		21.789271	1.00	21.789271
07-00S0002004	Integrated Circuit		84.379324	1.00	84.379324
22-3112BB1271	Integrated Circuit		67.638458	1.00	67.638458
40-0100001176	Connection		8.000000	1.00	8.000000