

MTBF Reliability Report

SQFlash 830 2.5” SATA SSD

Reliability Prediction	
Operating Temperature	30℃
Failure Rate (FIT)	503.610751
MTBF (hrs)	1,985,658.366 hrs

Product Information

Model: SQF-S25 830

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 830 64G SLC (0~70°C)	SQF-S25S8-64G-SAC
SQF 2.5 SATA SSD 830 128G SLC (0~70°C)	SQF-S25S8-128G-SAC
SQF 2.5 SATA SSD 830 256G SLC (0~70°C)	SQF-S25S8-256G-SAC
SQF 2.5 SATA SSD 830 512G SLC (0~70°C)	SQF-S25S8-512G-SAC
SQF 2.5 SATA SSD 830 64G SLC (-40~85°C)	SQF-S25S8-64G-SAE
SQF 2.5 SATA SSD 830 128G SLC (-40~85°C)	SQF-S25S8-128G-SAE
SQF 2.5 SATA SSD 830 256G SLC (-40~85°C)	SQF-S25S8-256G-SAE
SQF 2.5 SATA SSD 830 512G SLC (-40~85°C)	SQF-S25S8-512G-SAE
SQF 2.5 SATA SSD 830 64G UMLC (0~70°C)	SQF-S25U8-64G-SAC
SQF 2.5 SATA SSD 830 128G UMLC (0~70°C)	SQF-S25U8-128G-SAC
SQF 2.5 SATA SSD 830 256G UMLC (0~70°C)	SQF-S25U8-256G-SAC
SQF 2.5 SATA SSD 830 512G UMLC (0~70°C)	SQF-S25U8-512G-SAC
SQF 2.5 SATA SSD 830 1T UMLC (0~70°C)	SQF-S25U8-1T-SAC
SQF 2.5 SATA SSD 830 64G UMLC (-40~85°C)	SQF-S25U8-64G-SAE
SQF 2.5 SATA SSD 830 128G UMLC (-40~85°C)	SQF-S25U8-128G-SAE
SQF 2.5 SATA SSD 830 256G UMLC (-40~85°C)	SQF-S25U8-256G-SAE
SQF 2.5 SATA SSD 830 512G UMLC (-40~85°C)	SQF-S25U8-512G-SAE
SQF 2.5 SATA SSD 830 1T UMLC (-40~85°C)	SQF-S25U8-1T-SAE
SQF 2.5 SATA SSD 830 64G MLC (0~70°C)	SQF-S25M8-64G-SAC
SQF 2.5 SATA SSD 830 128G MLC (0~70°C)	SQF-S25M8-128G-SAC
SQF 2.5 SATA SSD 830 256G MLC (0~70°C)	SQF-S25M8-256G-SAC
SQF 2.5 SATA SSD 830 512G MLC (0~70°C)	SQF-S25M8-512G-SAC
SQF 2.5 SATA SSD 830 1T MLC (0~70°C)	SQF-S25M8-1T-SAC
SQF 2.5 SATA SSD 830 2T MLC (0~70°C)	SQF-S25M8-2T-SAC
SQF 2.5 SATA SSD 830 64G MLC (-40~85°C)	SQF-S25M8-64G-SAE
SQF 2.5 SATA SSD 830 128G MLC (-40~85°C)	SQF-S25M8-128G-SAE
SQF 2.5 SATA SSD 830 256G MLC (-40~85°C)	SQF-S25M8-256G-SAE
SQF 2.5 SATA SSD 830 512G MLC (-40~85°C)	SQF-S25M8-512G-SAE
SQF 2.5 SATA SSD 830 1T MLC (-40~85°C)	SQF-S25M8-1T-SAE
SQF 2.5 SATA SSD 830 2T MLC (-40~85°C)	SQF-S25M8-2T-SAE

Part Number	Reference Des Date	Environment	Temperature	Description
SQF-S25M8-1T-SAC	March, 10, 2016	GB, GC-Ground Benign, Controlled	30.00 °C	Top-level assembly
	Time	Failure Rate	MTBF	
	6:03 PM	503.610751	1,985,658.366	

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
SQF-S25M8-1T-SAC	SQF-S25M8-1T-SAC		1.00	503.610751	1,985,658.366
			1.00	503.610751	1,985,658.366
Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
00-00S0000000	Resistor		0.500000	36.00	18.000000
00-00S0000044	Resistor		0.500000	1.00	0.500000
00-00S0000045	Resistor		0.500000	2.00	1.000000
00-00S0000059	Resistor		0.500000	3.00	1.500000
00-00S0000060	Resistor		0.500000	1.00	0.500000
00-00S0000061	Resistor		0.500000	2.00	1.000000
00-00S0000092	Resistor		0.500000	1.00	0.500000
00-00S0000190	Resistor		0.500000	2.00	1.000000
00-00S0000120	Resistor		0.500000	2.00	1.000000
00-00S0000173	Resistor		0.500000	5.00	2.500000
00-00S0000174	Resistor		0.500000	1.00	0.500000
00-00S0000182	Resistor		0.500000	3.00	1.500000
00-00S0000184	Resistor		0.500000	3.00	1.500000
00-00S0000188	Resistor		0.500000	3.00	1.500000
00-00S0000196	Resistor		0.500000	5.00	2.500000
00-00S0000216	Resistor		0.500000	4.00	2.000000
00-00S0000220	Resistor		0.500000	1.00	0.500000
00-01S0000008	Resistor		0.500000	26.00	13.000000
00-10S0000000	Capacitor		1.000000	14.00	14.000000
00-10S0000004	Capacitor		1.000000	1.00	1.000000
00-10S0000011	Capacitor		1.000000	4.00	4.000000
00-10S0000049	Capacitor		1.000000	7.00	7.000000
00-10S0000054	Capacitor		1.000000	16.00	16.000000
00-10S0000056	Capacitor		1.000000	19.00	19.000000
00-10S0000061	Capacitor		1.000000	2.00	2.000000
00-10S0000062	Capacitor		1.000000	16.00	16.000000
00-10S0000050	Capacitor		1.000000	17.00	17.000000
00-10S0000066	Capacitor		1.000000	106.00	106.000000
00-10S0000082	Capacitor		1.000000	6.00	6.000000
00-10S0000068	Capacitor		1.000000	6.00	6.000000
00-20S0000005	Inductor		0.500000	3.00	1.500000
00-20S0000020	Inductor		0.500000	1.00	0.500000
00-30S0000047	Inductor		0.500000	1.00	0.500000
00-30S0000048	Inductor		0.500000	1.00	0.500000
00-40S0000027	Semiconductor		6.000000	1.00	6.000000
00-50S0000012	Miscellaneous		0.500000	1.00	0.500000
01-00S0000049	Miscellaneous		25.000000	1.00	25.000000
04-01S0000017	Connection		0.000000	1.00	0.000000
06-00S0000123	Integrated Circuit		84.379324	1.00	84.379324
22-3110CB10XB	Integrated Circuit		82.942156	1.00	82.942156
18-A085000001	Connection		8.000000	1.00	8.000000
06-03S0000106	Integrated Circuit		21.789271	1.00	21.789271
00-30S0000049	Inductor		0.500000	5.00	2.500000
00-00S0000076	Resistor		0.500000	3.00	1.500000
00-00S0000245	Resistor		0.500000	1.00	0.500000
00-10S0000089	Capacitor		1.000000	1.00	1.000000
00-10S0000108	Capacitor		1.000000	2.00	2.000000