

MTBF Reliability Report
SQFlash 920 M.2 2280 SSD

Reliability Prediction	
Operating Temperature	30°C
Failure Rate (FIT)	466.164081
MTBF (hrs)	2,145,167hr

Product Information
Model: SQF-CM8 920

Prediction Method
Analysis Software: [Relex7.3](#)
Analysis Method: [Telcordia SR-332, Reliability Prediction of Electronic Equipment.](#)

Parts Coverage

Product	Advantech PN
SQF PCIe/NVMe M.2 2280 920 240G 3D TLC BiCS3 (0~70°C)	SQF-CM8V4-240G-ECC
SQF PCIe/NVMe M.2 2280 920 480G 3D TLC BiCS3 (0~70°C)	SQF-CM8V4-480G-ECC
SQF PCIe/NVMe M.2 2280 920 960G 3D TLC BiCS3 (0~70°C)	SQF-CM8V4-960G-ECC
SQF PCIe/NVMe M.2 2280 920 1920G 3D TLC BiCS3 (0~70°C)	SQF-CM8V4-1K9G-ECC
SQF PCIe/NVMe M.2 2280 920 240G 3D TLC BiCS3 (-40~85°C)	SQF-CM8V4-240G-ECE
SQF PCIe/NVMe M.2 2280 920 480G 3D TLC BiCS3 (-40~85°C)	SQF-CM8V4-480G-ECE
SQF PCIe/NVMe M.2 2280 920 960G 3D TLC BiCS3 (-40~85°C)	SQF-CM8V4-960G-ECE
SQF PCIe/NVMe M.2 2280 920 1920G 3D TLC BiCS3 (-40~85°C)	SQF-CM8V4-1K9G-ECE

Part Number	Reference Des Date	Environment	Temperature	Description
SQF-CM8V4-1K9G-ECC	Jul, 25, 2019	GB, GC-Ground Benign, Controlled	30.00 °C	BGA-level assembly
	Time	Failure Rate	MTBF	
	11:08 AM	466.164081	2,145,167 hrs	

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
SQF-CM8V4-1K9G-ECC	SQF-CM8V4-1K9G-ECC		1.00	466.164081	2,145,167
			1.00	466.164081	2,145,167
Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
40-0100001157	Resistor		1.000000	4.00	8.000000
00-10S0000111	Resistor		8.000000	2.00	8.000000
00-10S0000101	Resistor		1.000000	1.00	11.000000
00-10S0000121	Resistor		1.000000	2.00	8.000000
00-10S0000112	Resistor		0.500000	8.00	0.500000
00-00S0000045	Resistor		0.500000	11.00	1.000000
00-00S0000173	Resistor		0.500000	8.00	3.000000
00-00S0000184	Resistor		0.500000	1.00	0.500000
00-00S0000192	Resistor		0.500000	7.00	2.500000
00-00S0000194	Resistor		0.500000	6.00	1.500000
00-00S0000197	Resistor		0.500000	1.00	0.500000
00-00S0000198	Resistor		0.500000	5.00	1.000000
00-00S0000216	Capacitor		0.500000	3.00	1.500000
00-00S0000059	Capacitor		0.500000	1.00	1.500000
00-00S0000064	Capacitor		0.500000	2.00	2.500000
00-00S0000076	Capacitor		0.500000	3.00	0.500000
00-00S0000283	Capacitor		1.000000	3.00	1.000000
00-10S0000056	Capacitor		1.000000	5.00	7.000000
00-10S0000062	Capacitor		1.000000	1.00	1.000000
00-10S0000066	Capacitor		1.000000	1.00	12.000000
00-10S0000082	Capacitor		1.000000	7.00	6.000000
00-10S0000089	Inductor		1.000000	1.00	43.000000
00-10S0000095	Inductor		1.000000	12.00	2.000000
00-20S0000021	Inductor		0.500000	6.00	1.000000
00-30S0000084	Semiconductor		0.500000	43.00	2.000000
00-30S0000085	Miscellaneous		0.500000	2.00	1.000000
00-40S0000041	Semiconductor		6.000000	4.00	6.000000
01-00S0000065	Integrated Circuit		25.000000	2.00	25.000000
02-R0S0000001	Integrated Circuit		6.000000	1.00	12.000000
06-R0S0000138	Integrated Circuit		32.429999	1.00	97.289997
06-03S0000246	Integrated Circuit		21.789271	3.00	43.578542
22-5012BB1276	Capacitor		67.638458	2.00	67.638458
30-T0UA0RP015	Connection		21.789271	1.00	87.157084