

MTBF Reliability Report

SQFlash 630 M.2 2280 SSD

Reliability Prediction	
Operating Temperature	30C
Failure Rate (FIT)	484.357888
MTBF (hrs)	2,064,589 hrs

Product Information

Model: SQF-SM8 630

Prediction Method

Analysis Software: [Relex7.3](#)

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

Parts Coverage

SLC

Product	Advantech PN
SQF M.2 2280 630 1G SLC (0~70°C)	SQF-SM8S1-1G-S9C
SQF M.2 2280 630 2G SLC (0~70°C)	SQF-SM8S2-2G-S9C
SQF M.2 2280 630 4G SLC (0~70°C)	SQF-SM8S4-4G-S9C
SQF M.2 2280 630 8G SLC (0~70°C)	SQF-SM8S2-8G-S9C
SQF M.2 2280 630 16G SLC (0~70°C)	SQF-SM8S4-16G-S9C
SQF M.2 2280 630 32G SLC (0~70°C)	SQF-SM8S4-32G-S9C
SQF M.2 2280 630 64G SLC (0~70°C)	SQF-SM8S4-64G-S9C
SQF M.2 2280 630 1G SLC (-40~85°C)	SQF-SM8S1-1G-S9E
SQF M.2 2280 630 2G SLC (-40~85°C)	SQF-SM8S2-2G-S9E
SQF M.2 2280 630 4G SLC (-40~85°C)	SQF-SM8S4-4G-S9E
SQF M.2 2280 630 8G SLC (-40~85°C)	SQF-SM8S2-8G-S9E
SQF M.2 2280 630 16G SLC (-40~85°C)	SQF-SM8S4-16G-S9E
SQF M.2 2280 630 32G SLC (-40~85°C)	SQF-SM8S4-32G-S9E
SQF M.2 2280 630 64G SLC (-40~85°C)	SQF-SM8S4-64G-S9E

Ultra MLC

Product	Advantech PN
SQF M.2 2280 630 2G UMLC (0~70°C)	SQF-SM8U1-2G-S9C
SQF M.2 2280 630 4G UMLC (0~70°C)	SQF-SM8U2-4G-S9C
SQF M.2 2280 630 8G UMLC (0~70°C)	SQF-SM8U2-8G-S9C
SQF M.2 2280 630 16G UMLC (0~70°C)	SQF-SM8U4-16G-S9C
SQF M.2 2280 630 32G UMLC (0~70°C)	SQF-SM8U4-32G-S9C
SQF M.2 2280 630 64G UMLC (0~70°C)	SQF-SM8U4-64G-S9C
SQF M.2 2280 630 128G UMLC (0~70°C)	SQF-SM8U4-128G-S9C
SQF M.2 2280 630 2G UMLC (-40~85°C)	SQF-SM8U1-2G-S9E
SQF M.2 2280 630 4G UMLC (-40~85°C)	SQF-SM8U2-4G-S9E
SQF M.2 2280 630 8G UMLC (-40~85°C)	SQF-SM8U2-8G-S9E
SQF M.2 2280 630 16G UMLC (-40~85°C)	SQF-SM8U4-16G-S9E
SQF M.2 2280 630 32G UMLC (-40~85°C)	SQF-SM8U4-32G-S9E
SQF M.2 2280 630 64G UMLC (-40~85°C)	SQF-SM8U4-64G-S9E
SQF M.2 2280 630 128G UMLC (-40~85°C)	SQF-SM8U4-128G-S9E

MLC

Product	Advantech PN
SQF M.2 2280 630 4G MLC (0~70°C)	SQF-SM8M1-4G-S9C
SQF M.2 2280 630 8G 1CH MLC (0~70°C)	SQF-SM8M1-8G-S9C
SQF M.2 2280 630 8G MLC (0~70°C)	SQF-SM8M2-8G-S9C
SQF M.2 2280 630 16G MLC (0~70°C)	SQF-SM8M4-16G-S9C
SQF M.2 2280 630 32G MLC (0~70°C)	SQF-SM8M4-32G-S9C
SQF M.2 2280 630 64G MLC (0~70°C)	SQF-SM8M4-64G-S9C
SQF M.2 2280 630 128G MLC (0~70°C)	SQF-SM8M4-128G-S9C
SQF M.2 2280 630 256G MLC (0~70°C)	SQF-SM8M4-256G-S9C
SQF M.2 2280 630 4G MLC (-40~85°C)	SQF-SM8M1-4G-S9E
SQF M.2 2280 630 8G 1CH MLC (-40~85°C)	SQF-SM8M1-8G-S9E
SQF M.2 2280 630 8G MLC (-40~85°C)	SQF-SM8M2-8G-S9E
SQF M.2 2280 630 16G MLC (-40~85°C)	SQF-SM8M4-16G-S9E
SQF M.2 2280 630 32G MLC (-40~85°C)	SQF-SM8M4-32G-S9E
SQF M.2 2280 630 64G MLC (-40~85°C)	SQF-SM8M4-64G-S9E
SQF M.2 2280 630 128G MLC (-40~85°C)	SQF-SM8M4-128G-S9E
SQF M.2 2280 630 256G MLC (-40~85°C)	SQF-SM8M4-256G-S9E

Part Number	Reference Des Date	Environment	Temperature	Description
SQF-SM8U4-128G-S9C	Feb., 02, 2017	GB, GC-Ground Benign, Controlled	30.00 °C	Top-level assembly
	Time	Failure Rate	MTBF	
	11:38 AM	484.357888	2,064,589 hrs	

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
SQF-SM8U4-128G-S9C	SQF-SM8U4-128G-S9C		1.00	484.357888	2,064,589
			1.00	484.357888	2,064,589
Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
30-TOLA0HP067	Integrated Circuit		21.789271	4.00	87.157084
00-00S0000000	Resistor		0.500000	11.00	5.500000
00-00S0000044	Resistor		0.500000	1.00	0.500000
00-00S0000045	Resistor		0.500000	4.00	2.000000
00-00S0000059	Resistor		0.500000	4.00	2.000000
00-00S0000064	Resistor		0.500000	1.00	0.500000
00-00S0000076	Resistor		0.500000	2.00	1.000000
00-00S0000089	Resistor		0.500000	2.00	1.000000
00-00S0000188	Resistor		0.500000	2.00	1.000000
00-01S0000010	Resistor		0.500000	1.00	0.500000
00-10S0000006	Capacitor		1.000000	4.00	4.000000
00-10S0000007	Capacitor		1.000000	1.00	1.000000
00-10S0000037	Capacitor		1.000000	6.00	6.000000
00-10S0000049	Capacitor		1.000000	2.00	2.000000
00-10S0000050	Capacitor		1.000000	1.00	1.000000
00-10S0000054	Capacitor		1.000000	2.00	2.000000
00-10S0000056	Capacitor		1.000000	3.00	3.000000
00-10S0000062	Capacitor		1.000000	1.00	1.000000
00-10S0000063	Capacitor		1.000000	2.00	2.000000
00-10S0000066	Capacitor		1.000000	60.00	60.000000
00-10S0000067	Capacitor		1.000000	8.00	8.000000
00-20S0000005	Inductor		0.500000	2.00	1.000000
00-30S0000034	Inductor		0.500000	2.00	1.000000
00-40S0000027	Semiconductor		6.000000	1.00	6.000000
06-00S0000090	Integrated Circuit		84.379324	2.00	168.758648
18-A059000010	Connection		8.000000	1.00	8.000000
22-09S9BB10JL	Integrated Circuit		82.942156	1.00	82.942156
00-50S0000008	Miscellaneous		0.500000	1.00	0.500000
01-00S0000059	Miscellaneous		25.000000	1.00	25.000000