

MTBF Reliability Report

SQFlash 630 M.2 2242 SSD

Reliability Prediction	
Operating Temperature	30C
Failure Rate (FIT)	419.975648
MTBF (hrs)	2,381,089hr

Product Information

Model: SQF-SM4 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 2242 630 8G SLC (0~70°C)	SQF-SM4S2-8G-S9C
SQF M.2 2242 630 16G SLC (0~70°C)	SQF-SM4S4-16G-S9C
SQF M.2 2242 630 32G SLC (0~70°C)	SQF-SM4S4-32G-S9C
SQF M.2 2242 630 64G SLC (0~70°C)	SQF-SM4S4-64G-S9C
SQF M.2 2242 630 8G SLC (-40~85°C)	SQF-SM4S2-8G-S9E
SQF M.2 2242 630 16G SLC (-40~85°C)	SQF-SM4S4-16G-S9E
SQF M.2 2242 630 32G SLC (-40~85°C)	SQF-SM4S4-32G-S9E
SQF M.2 2242 630 64G SLC (-40~85°C)	SQF-SM4S4-64G-S9E

Ultra MLC

Product	Advantech PN
SQF M.2 2242 630 16G U-MLC (0~70°C)	SQF-SM4U2-16G-S9C
SQF M.2 2242 630 32G U-MLC (0~70°C)	SQF-SM4U2-32G-S9C
SQF M.2 2242 630 64G U-MLC (0~70°C)	SQF-SM4U2-64G-S9C
SQF M.2 2242 630 128G U-MLC (0~70°C)	SQF-SM4U2-128G-S9C
SQF M.2 2242 630 16G U-MLC (-40~85°C)	SQF-SM4U2-16G-S9E
SQF M.2 2242 630 32G U-MLC (-40~85°C)	SQF-SM4U2-32G-S9E
SQF M.2 2242 630 64G U-MLC (-40~85°C)	SQF-SM4U2-64G-S9E
SQF M.2 2242 630 128G U-MLC (-40~85°C)	SQF-SM4U2-128G-S9E

MLC

Product	Advantech PN
SQF M.2 2242 630 32G MLC (0~70°C)	SQF-SM4M2-32G-S9C
SQF M.2 2242 630 64G MLC (0~70°C)	SQF-SM4M2-64G-S9C
SQF M.2 2242 630 128G MLC (0~70°C)	SQF-SM4M2-128G-S9C
SQF M.2 2242 630 256G MLC (0~70°C)	SQF-SM4M2-256G-S9C
SQF M.2 2242 630 32G MLC (-40~85°C)	SQF-SM4M2-32G-S9E
SQF M.2 2242 630 64G MLC (-40~85°C)	SQF-SM4M2-64G-S9E
SQF M.2 2242 630 128G MLC (-40~85°C)	SQF-SM4M2-128G-S9E
SQF M.2 2242 630 256G MLC (-40~85°C)	SQF-SM4M2-256G-S9E

Part Number	Reference Des Date	Environment	Temperature	Description
SQF-SM4U2-32G-S9E	May, 05, 2017	GB, GC-Ground Benign, Controlled	30.00 °C	Top-level assembly
	Time	Failure Rate	MTBF	
	3:32 AM	419.975648	2,381,089 hrs	

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF
SQF-SM4U2-32G-S9E	SQF-SM4U2-32G-S9E		1.00	419.975648	2,381,089
			1.00	419.975648	2,381,089
Part Number	Category	Ref Des	Failure Rate, Unit	Quantity	Failure Rate
00-00S0000000	Resistor		0.500000	5.00	2.500000
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	17.00	17.000000
00-10S0000037	Capacitor		1.000000	2.00	2.000000
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	8.00	8.000000
00-10S0000061	Capacitor		1.000000	2.00	2.000000
00-10S0000062	Capacitor		1.000000	1.00	1.000000
00-10S0000063	Capacitor		1.000000	2.00	2.000000
00-10S0000066	Capacitor		1.000000	46.00	46.000000
00-10S0000067	Capacitor		1.000000	5.00	5.000000
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
00-50S0000008	Miscellaneous		0.500000	1.00	0.500000
01-00S0000059	Miscellaneous		25.000000	1.00	25.000000
06-00S0000090	Integrated Circuit		84.379324	2.00	168.758648
18-A076000001	Connection		8.000000	1.00	8.000000
22-09S9BB11JC	Integrated Circuit		67.638458	1.00	67.638458
30-T0LA0HP067	Integrated Circuit		21.789271	2.00	43.578542