SMART
RUGGED.Product Comparison Chart
Rugged, Reliable, Secure SSDs

		T6CN		T6EN			5EN	T5E		S5E SATA	T5PF SATA	T5PFLC SATA
Interface	PCle			PCIe			Cle		ATA			
Form Factor	E1.S			E1.S U.2 M.2 2280		U.2 M.2 2280		2.5" M.2 2280		2.5"	2.5"	2.5"
NAND Flash Type	21.0	3D TLC	21.0	3D TLC	11.2 2200	3D TLC	3D TLC	3D TLC	3D TLC	SLC	3D TLC	3D TLC
							3D TLC: 480GB - 3,840GB	3D TLC: 120GB - 3,840GB	3D TLC: 120GB - 1,920GB			2.5": 120GB - 1.920GB
Capacity	960GB – 7,680GB	960GB – 15,360GB 960GB – 7680	GB 960GB – 7,680GB	960GB – 15,360GB	960GB – 7680GB	pSLC: 160GB - 2,560GB	pSLC: 160GB - 1,280GB	pSLC: 40GB - 1,280GB	pSLC: 40GB - 640GB	- 60GB - 480GB	480GB - 3,840GB	M.2: 240GB - 960GB
Sustained Read/Write Performance	3,500MB/s Read 3,000MB/s Write3,500MB/s Read 3,000MB/s Write3,200MB/s Read 3,200MB/s Write					3,200MB/s Read, 1,600MB/s Write		520MB/s Read, 500MB/s Write		530MB/s Read, 490MB/s Write	500MB/s Read, 470MB/s Write	500MB/s Read, 470MB/s Write
Reliability												
MTBF	2M Hours, Telcordia 20°C			2M Hours, Telcordia 20°C		2M hours, Telcordia 25°C		2M hours, Telcordia 25°C		2M Hours. Telcordia 25°C	2M Hours, Telcordia 25°C1	2M Hours, Telcordia 25°C1
Data Reliability	1 in 10 ¹⁷ bits read			1 in 10 ¹⁷ bits read		1 in 10 ¹⁷ bits read		1 in 10 ¹⁷ bits read		1 in 10 ¹⁷ bits read	1 in 10 ¹⁷ bits read	1 in 10 ¹⁷ bits read
Data Retention	10 years @ 25°C			10 years @ 25°C		10 years @ 25°C		10 years @ 25°C		10 years @ 25°C	10 years @ 25°C	10 years @ 25°C
Data Retention	C-Temp: 16,800 TBW (with 15,360GB)					3D TLC: 625 TDW		3D TLC: 1,000 TDW		10 years @ 25 0	10 years @ 20 0	
Endurance	I-Temp: 9,600 TBW (with 15,360GB)		I-Tem	I-Temp: 9,600 TBW (with 15,360GB)		pSLC: 6,250 TDW		pSLC: 10.000 TDW		- 30,000 TDW	2,100 TDW	2,100 TDW
Power Loss Protection	U.2 & E1.S only			U.2 & E1.S only		pFail No pFail		pFail No pFail		pFail	pFail	No pFail
	1 Year			1 Year			Year	· ·	Year	1 Year	1 Year	1 Year
Warranty												
Environmental												
Operating Temperature	Industrial (-40°C to 85°C) Commercial (0°C to 70°C)			Industrial (-40°C to 85°C)		Industrial (-40°C to 85°C)		Industrial (-40°C to 85°C) Commercial (0°C to 70°C)	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C) Commercial (0°C to 70°C)
Storage Temperature	Commercial (-40°C to 85°C) Industrial (-50°C to 95°C)			Commercial (-40°C to 85°C) Industrial (-50°C to 95°C)		-55°C to 95°C		-55°C to 95°C		-55°C to 95°C	-55°C to 95°C	-55°C to 95°C
Operating Shock	50G (11 ms duration, half sine wave) ³		50G (1	50G (11 ms duration, half sine wave) ³		50g half-sine, 11 ms, 3 shocks along each axis ³		50g half-sine, 11 ms, 3 shocks along each axis ³	50g half-sine, 11 ms, 3 shocks along each axis³	50g half-sine, 11 ms, 3 shocks along each axis	50g half-sine, 11 ms, 3 shocks along each axis ³	50g half-sine, 11 ms, 3 shocks along each axis ³
Operating Vibration	10G (peak, 10-2000Hz) ³			10G (peak, 10-2000Hz) ³		10g rms, 10-2000Hz ³		16.4g rms, 10-2,000 Hz	10g rms, 10-2000Hz ³	16.4g rms, 10-2,000 Hz	16.4g rms, 10-2,000 Hz ³	16.4g rms, 10-2,000 Hz ³
Relative Humidity	5% - 95% non-condensing ³			5% - 95% non-condensing ³		5% - 95% non-condensing ³		-	on-condensing	5% - 95% non-condensing	5% - 95% non-condensing	5% - 95% non-condensing
Altitude	24,384 m (80,000 ft) ³			24,384 m (80,000 ft) ³		24,384 m (80,000 ft) ³		24,384 m (80,000 ft)		24,384 m (80,000 ft)	24,384 m (80,000 ft)	24,384 m (80,000 ft)
Conformal Coating	Optional			Optional		Optional		Optional		Optional	Optional	Optional
Security (Protection & Da	ata Elimination)											
ATA password												
AES 256b												
Write Protect									Optional			
External HW trigger												
Erase Key and flash												
TCG Opal 2.0								-				-
FIPS 140-2						-	-			-	4	4
MIL Erase Sequences												
NSA-9-12				-						-		
DoD NISPOM 5220.22-M						-	-					
DoD NISPOM 5220.22-M-Sup 1												
NSA/CSS Manual 130-2						-						
NSA/CSS Manual 9-12										-		
Army AR 380-19						-		-		-		
Army AR 380-19 Navy NAVSO P-5239-26										_		
Air Force AFSSI-5020												
RCC –TG IRIG 106-07												
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¹Estimated. Official MTBF pending

²Based on 128 KByte block transfers and continuous, sequential writes to the drive. The number does not include file system overhead, which may vary depending on the file system. The total life span of the drive depends on both the write endurance numbers and MTBF. TDW

Total Drive Writes = (Terabytes Written) *1000 / (Drive Capacity GB)

Design Specification. Testing Pending

4FIPS 140-2 Inside

