

# SMART's Storage Solutions

XceedSCSI

MEMORY • FLASH • STORAGE • DISPLAYS • EMBEDDED

## XceedSCSI Storage Products

SMART Modular Technologies' XceedSCSI family of 3.5" solid state drives (SSDs) provide reliable and durable storage solutions for SCSI-based systems. With support for standard SCSI commands, SMART's XceedSCSI products can be quickly integrated into existing systems.

## XceedSCSI 3.5" Narrow and 3.5" Wide

Designed for heavy duty operation, SMART's XceedSCSI 3.5" Narrow and XceedSCSI 3.5" Wide perform under conditions of extended temperatures, high shock and vibration and rapid temperature gradients. A range of capacities are available to meet the needs of virtually every application.

SMART's XceedSCSI 3.5" Narrow and XceedSCSI 3.5" Wide products utilize ArrayPro™ technology to deliver exceptional sustained read/write performances to meet demanding application needs. With enhanced operating reliability, extended MTBF, and rugged durability, the 3.5" SCSI products excel in mission-critical applications where the cost of lost data is high.

## XceedSCSI 3.5" PC Card Drive

The XceedSCSI 3.5" PC Card Drive delivers industry standard SCSI compatibility and PC Card hot swapping.

SMART's XceedSCSI 3.5" PC Card Drive meets the removable media requirements in a wide range of applications, including mission data transfers in military aircraft, image transfers from a professional class digital camera to a graphics workstation and SCSI hard disk replacement in embedded computers.

Single and dual slot versions mount in a 3.5-inch floppy drive bay. Used with ATA flash PC Cards, the XceedSCSI 3.5" PC Card Drive provides the durability and reliability of a solid state, removable storage device for commercial or industrial temperature ranges.



	Capacity (GB)	Performance (Sustained)
<b>XceedSCSI 3.5" Narrow</b>		
3.5" Narrow	1, 2, 4, 8, 16, 32	up to 12MB/s Read up to 9.4MB/s Write
<b>XceedSCSI 3.5" Wide</b>		
3.5" Wide	8, 16, 32, 64, 128	up to 31MB/s Read up to 30MB/s Write
<b>XceedSCSI 3.5" PC Card Drive</b>		
PC Card	PC Card Dependent	(PC Card Dependent) up to 12MB/s Read up to 11MB/s Write

- **Up to 32GB capacity in a 14.6mm height; up to 128GB in a 25.4mm height**
- **Delivers high reliability, durability and data integrity by integrating SLC NAND flash with advanced flash management**
- **Both SCSI Narrow and Wide interfaces available**
- **Available in industrial (-40°C to 85 °C) and commercial (0°C to 70°C) operating temperature ranges**



## Specifications

## Ordering Information

	XceedSCSI 3.5" Narrow	XceedSCSI 3.5" Wide <sup>6</sup>	XceedSCSI 3.5" PC Card Drive
<b>Performance</b>			
Burst (MB/s)	13.2 R / 10.5W	37 R / 35W	Up to 20 R/W <sup>5</sup>
Sustained (MB/s)	Up to 12 R / 9.4 W	Up to 31 R / 30W	Up to 12 R, 11W <sup>5</sup>
<b>Capacity</b>			
Min	1GB	8GB	Type I, II, III Card
Max	32GB	128GB	Type I, II, III Card
<b>Reliability</b>			
MTBF <sup>1</sup>	1,635,224	2,900,000	2,697,865 w/o media
Data Reliability	1 in 10 <sup>14</sup> bits read	1 in 10 <sup>14</sup> bits read	1 in 10 <sup>14</sup> bits read
Data Retention	> 10 years	> 10 years	> 10 years
Endurance	> 430 <sup>2</sup> years	> 400 <sup>2</sup> years	> 260 <sup>2</sup> years
<b>Power</b>			
Input Voltage	5V +/- 5%	5V +/- 5%	5V +/- 5%
Idle (max W)	1.95	5	1.3 w/o media
Operational (max W)	2.6	10	2.65 w/o media
<b>Environmental</b>			
Operating Temp	C, I <sup>3</sup>	C, I <sup>3</sup>	C, I <sup>3</sup> w/o media
Shock <sup>4</sup>	50g @ 11ms	70g @ 3-axes	50g @ 11ms <sup>5</sup>
Vibration <sup>4</sup>	16.4g rms, 3-axes	16.4g rms, 3-axes	16.4g rms, 3-axes
Altitude <sup>4</sup> (ft)	80,000	80,000	80,000 <sup>5</sup>
Relative Humidity <sup>4</sup>	5%-95%, non-cond	5%-95%, non-cond	5%-95%, non-cond <sup>5</sup>
Conformal Coating	Optional	Optional	Optional
Storage Temp	-55°C - 95°C	-55°C - 85°C	-55°C - 85°C
<b>Physical</b>			
Form Factor	3.5"	3.5"	3.5"
Length (mm)	146.1	145.6	158.1
Width (mm)	101.5	101.6	101.22
Height (mm)	14.6	25.4	25.15
Connector	50-pin SE	68-pin LVD or SE	50-pin SE

1 Based on Telcordia, Ground Benign Controlled at 25°C

2 Write Endurance @ 200GB/day write/erase cycles, 64GB drive

3 C = 0°C to 70°C (Commercial), I = -40°C to 85°C (Industrial)

4 Based on MIL-STD-810F

5 PC Card Dependent

6 XceedSCSI 3.5" Wide is not RoHS compliant

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Part Number	Capacity (GB)	Interface
<b>XceedSCSI 3.5" Narrow SSD with ArrayPro Technology</b>		
S35FA-1Gtc20N	1	50-pin
S35FA-2Gtc20N	2	50-pin
S35FA-4Gtc20N	4	50-pin
S35FA-8Gtc20N	8	50-pin
S35FA-16Gtc20N	16	50-pin
S35FA-32Gtc20N	32	50-pin
<b>XceedSCSI 3.5" Wide SSD with ArrayPro Technology (not RoHS compliant)</b>		
S35FB-8Gtc01	8	68-pin
S35FB-16Gtc01	16	68-pin
S35FB-32Gtc01	32	68-pin
S35FB-8GCc01 <sup>1</sup>	64	68-pin
S35FB-8GCc01 <sup>1</sup>	128	68-pin
<b>XceedSCSI 3.5" PC Card Drive</b>		
S35P-t01N	2-slot	50-pin
S35P-t03N	1-slot	50-pin

t (temperature)

t = C (0°C to 70°C, Commercial),

t = I (-40°C to 85°C, Industrial)

c (conformal coating)

c = null (no conformal coating),

c = C (with conformal coating)

1 Commercial Temp only on S35FB 64GB and 128GB drives

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