

Flash Products

XceedCF

MEMORY • FLASH • STORAGE • DISPLAYS • EMBEDDED

Industrial Grade XceedCF

SMART Modular Technologies' XceedCF products offer reliable high performance operation in an industry standard CompactFlash (CF) form factor. The industrial-grade XceedCF products are specifically targeted at the needs of OEM markets such as networking, telecommunications and data communications applications, mobile, embedded computing, medical, automotive and industrial applications.

Available in capacities from 64MB to 16GB, SMART's XceedCF offers an advanced static wear-leveling algorithm for extending product lifespan for the most demanding OEM applications. Additionally, SMART has designed its product using single level cell (SLC). SLC NAND Flash technology which betters comparable multi level cell technology by a factor of 10X in reliability and 2X in speed.

The entire Xceed Flash product line supports self-monitoring analysis and reporting technology (S.M.A.R.T.), which is designed to reduce field failures and unscheduled service maintenance operations. By providing an accurate forecast of the expected lifespan, S.M.A.R.T. enables a reliable monitoring application that efficiently supports the Xceed Flash product in the field and guarantees a 24/7 service availability.



XceedCF Specifications:

<ul style="list-style-type: none"> Maximum Performance (PIO 6) <ul style="list-style-type: none"> - 256MB – 16GB - 128MB - 64MB Maximum Performance (UDMA 5) <ul style="list-style-type: none"> - 256MB – 16GB - 128MB - 64MB Host Interface Transfer Rate Startup Times <ul style="list-style-type: none"> - Sleep to Read/Write - Power up to Ready Command to DRQ <ul style="list-style-type: none"> - Read - Write 	<table border="0"> <thead> <tr> <th>Read</th> <th>Write</th> </tr> </thead> <tbody> <tr> <td>24MB/s</td> <td>12MB/s</td> </tr> <tr> <td>19MB/s</td> <td>6MB/s</td> </tr> <tr> <td>10MB/s</td> <td>1.7MB/s</td> </tr> <tr> <td>47MB/s</td> <td>25MB/s</td> </tr> <tr> <td>24MB/s</td> <td>7MB/s</td> </tr> <tr> <td>10MB/s</td> <td>1.7MB/s</td> </tr> <tr> <td>16MB/s</td> <td></td> </tr> <tr> <td><2.5ms</td> <td></td> </tr> <tr> <td>< 100ms</td> <td></td> </tr> <tr> <td>< 220us</td> <td></td> </tr> <tr> <td>< 75us</td> <td></td> </tr> </tbody> </table>	Read	Write	24MB/s	12MB/s	19MB/s	6MB/s	10MB/s	1.7MB/s	47MB/s	25MB/s	24MB/s	7MB/s	10MB/s	1.7MB/s	16MB/s		<2.5ms		< 100ms		< 220us		< 75us	
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<p>Reliability</p> <ul style="list-style-type: none"> MTBF Data Reliability Data Retention Endurance 	<p>> 2,500,000 hours</p> <p>1 in 1014 bits read</p> <p>10 years</p> <p>>2,000,000 program/erase cycles</p>																								
<p>Power</p> <ul style="list-style-type: none"> VCC5.0V±10% Read Write Passive 	<p>3.3V±5%</p> <p>60mA 55mA</p> <p>60mA 55mA</p> <p>6mA 4mA</p>																								
<p>Environmental</p> <ul style="list-style-type: none"> Shock Vibration Operating temperature Storage temperature Humidity Altitude 	<p>50G max. @ 11ms</p> <p>15G peak to peak</p> <p>0°C to 70°C (Industrial Grade)</p> <p>-40°C to +85°C (Industrial Temp)</p> <p>-65°C to 150°C</p> <p>5% to 95%</p> <p>up to 80,000 ft.</p>																								
<p>Physical Dimensions</p> <ul style="list-style-type: none"> Length Width Thickness Weight 	<p>1.433in. (36.40mm.)</p> <p>1.640in. (41.66mm.)</p> <p>0.130in. (3.30mm.)</p> <p>0.36oz. (10.2gm)</p>																								



Ordering Information

SMART Part Number	Chip Density	Physical Capacity	Sector Card	Head	Cylinder	Sector Track	Un-Formatted Capacity
SG9CF64SME5xxx (I)	512Mb	64MB	123,904	8	484	32	63,438,848
SG9CF128SME1xxx (I)	1Gb	128MB	248,064	8	969	32	127,008,768
SG9CF256SME1xxx (I)	1Gb	256MB	497,152	16	971	32	254,541,824
SG9CF512SME2xxx (I)	2Gb	512MB	994,896	16	987	63	509,386,752
SG9CF1GSME4xxx (I)	4Gb	1GB	1,989,792	16	1,974	63	1,018,773,504
SG9CF2GSME9xxx (I)	8Gb	2GB	3,915,072	16	3,884	63	2,004,516,864
SG9CF4GSMEAxxx (I)	16Gb	4GB	7,831,152	16	7,769	63	4,009,549,824
SG9CF8GSMEBxxx (I)	32Gb	8GB	15,596,784	16	15,148	63	7,985,553,408
SG9CF16GSMEBxxx (I)	32Gb	16GB	31,195,136	16	16,384 ^U	63	15,971,909,632

Note: All available in industrial grade. Part numbers ending in (I) are also available in industrial temp. ^UCHS not supported at this capacity

XceedCF Diagram

