

# TuffDrive® CF

## Industrial Grade CompactFlash

128MB – 64GB (PE)



**Industrial Embedded  
Technology for an  
Interconnected World**

**TuffDrive CF cards are  
ideal for industrial  
automation, networking,  
and medical applications  
that require a small form  
factor**



**Designed, programmed, built  
and supported in the U.S. -  
fortified by locations  
worldwide.**

## Overview

Virtium's TuffDrive® CF CompactFlash cards are designed for the unique capacity, workload and product longevity requirements of a broad range of embedded systems.

As rugged storage solutions, TuffDrive CF products meet MIL-STD-810 standards for shock, vibration and altitude. Virtium backs its world-class storage products with a five-year warranty and delivers the longest product life cycles in the industry.

## Applications

TuffDrive CF CompactFlash cards are ideal for industrial automation, networking and medical applications that require high performance in a small, framed, "eject-able" form factor.

An industry standard backed by the CompactFlash Association, CompactFlash is a true workhorse in industrial embedded systems with tens of millions of installations worldwide.

## Features

- Standard and industrial temperature
- SMART attribute reporting
- Global static and dynamic wear leveling
- Field upgradeable firmware functionality
- Compliance:
  - UDMA Mode 4

- PCMCIA memory and I/O mode
- FCC, CE, UL, RoHS, WEEE
- CFA 3.0 and 4.1

Specifications			
<b>Operating temp (standard, industrial)</b>	0°C to 70°C, -40°C to 85°C		
<b>MTBF</b>	2M hours		
<b>Environmental</b>	MIL-STD-810		
<b>Power-down protection</b>	vtGUARD™		
<b>Endurance</b>	100K		
<b>Data retention</b>	10 years at <10% endurance; 1 year at max endurance		
<b>Dimensions (mm)</b>	36.4 x 42.8 x 3.3		
<b>Warranty</b>	5 years		
<b>Class</b>	<b>PE</b>		
<b>Product Family</b>	4A8	1C1	1A7 / 1B7
<b>Capacity Range</b>	128MB to 512MB	1GB to 16GB	32GB to 64GB
<b>Read/write sequential<sup>1</sup> (MB/s)</b>	Up to 18 / 16	Up to 40 / 20	Up to 106 / 78
<b>NAND Flash</b>	SLC	SLC	SLC
<b>CFA Compliance</b>	CFA 3.0	CFA 4.1	CFA 4.1

1: 1GB = 1,000,000,000 bytes

## Ordering Information

<b>VTDCFAP(C/I)yyy(G/M)-zzz</b>	VTDCFAP	Virtium TuffDrive CF
	(C/I)	Commercial / Industrial operating temp
	yyy	Capacity
	(G/M)	GB (1GB = 1,000,000,000 bytes) MB (1MB = 1,000,000 bytes)
	zzz	Family (4A8, 1C1, 1A7, 1B7)

Virtium manufactures memory and storage solutions for the world's top industrial embedded OEMs. For 18 years we have designed, built and supported our products in the USA - fortified by a network of global locations. Our world-class technology and unsurpassed support provide a superior customer experience that continuously results in better industrial embedded products for our increasingly interconnected world.

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