Full Metal Card 2nd Edition

V2A stainless steel case of Solid, IP54 and IP68 versions. Case of high-strength bronze alloy of the Hermetic Military version.

Storage media with DataSafe™ full metal case for maximum reliability

- **ATA Flash Type II PC Cards; memory technology based on SiliconDrive™ Industrial Grade quality; True IDE Mode**
- **Four versions: Solid version, versions to IP54 and IP68 specifications, Hermetic Military version with fully sealed case**
- **All versions are mechanically very rugged – high resistance to vibration and shock; IP54 versions and above have an extended temperature range**
- **Unique metal case design ensures high resistance to deformation, EMC, excellent protection against ESD and corrosion**
- **IP54 versions and above dust and moisture proof; Military versions can be submerged to a depth of 30 meters**
- **Capacities from 32 MB to 8.0 GB**

Up To 7 Years Warranty

Full Metal Card 2nd Edition	Item no.*
Full Metal Card 2nd Edition Solid	13DLxxxG/v.1
Full Metal Card 2nd Edition IP54	13DLxxxGP/v.1
Full Metal Card 2nd Edition IP68	13DLxxxG68/v.1
Full Metal Card 2nd Edition Military	13DLxxxGM/v.1

* xxx = capacity in MB; v.1 = Version 01

Technical Specifications

Hardware – Interface	ATA Flash PC Card, True IDE; 68-pin	**Reliability** – ECC	6 bit
– Dimensions	PC Card Type II; Length x Width x Height: 85.6 x 54 x 5 mm	– MTBF at 25°C	> 4,000,000 hours
– Weight	approx. 50 g; Military approx. 70 g	– Endurance	> 2,000,000 write/erase cycles
Power Requirements		– Data Reliability	< 1 non-recoverable error in 10^{14} bits read
– DC Input Voltage	3.3 Volt ±10%; 5 Volt ±10%	**Startup Time**	
– Power Consumption typ.	<0.5 mA (3.3V); <1.0 mA (5V) (Sleep) 30 mA (3.3V); 40 mA (5V) (Write)	– Reset to Ready	200 msec typ.; 400 msec max.
Acoustic Noise	0 dB at 1 meter	**Transfer Rate**	
		– Typical Read/Write	8 MB/sec (Read); 6 MB/sec (Write)

Version:	**Solid**	**IP54**	**IP68**	**Military**
– Frame material	$CuNi_9Sn_2$ coated	$CuNi_9Sn_2$ coated	$CuNi_9Sn_2$ coated	$CuNi_9Sn_2$
– Cover / filling material	V2A stainless steel / –	V2A stainless steel / –	V2A stainless steel / –	$CuNi_9Sn_2$ / Stycast W 19
Environmental Specifications				
– Temperature (operating)	0° to +70°C	–40° to +85°C	–40° to +85°C	–40° to +85°C
(non operating)	–55° to +125°C max.	–55° to +125°C max.	–55° to +125°C max.	–55° to +125°C max.
– Humidity	8–95%, non-cond.	8–95%, non-cond.	8–95%, non-cond.	>95%, condensing
– Shock (half sine; 0.5 ms)	1,000 G	1,000 G	1,000 G	3,000 G max.
– Vibration (random)	16.3 G RMS	16.3 G RMS	16.3 G RMS	24 G RMS (72 G max.)
(sine)	–	–	–	30 G peak to peak
– Altitude	80,000 feet max.	80,000 feet max.	–	80,000 feet
– Diving Depth (non operating)	–	–	1 m	30 m
PC Card to function after				
– Bend	< 4 mm at 100 N	< 4 mm at 100 N	< 4 mm at 100 N	< 4 mm at 150 N
– Stability Case Top				< 0.5 mm at 40 N
– Torsion	5 Nm < 3°	5 Nm < 3°	5 Nm < 3°	6 Nm < 3°
Connector Durability				
– Plug Cycles (office environm.)	10,000			
(harsh environment)	–	10,000	10,000	10,000
Warranty	5 years	5 years	7 years	2 years

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