

SNAPPER Approvals

DataCell Limited

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Part Information

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EMC

Snappers have been tested to ensure compliance with international regulations on electromagnetic compatibility (EMC). The **CE** mark has been applied to the products to show this compliance within the European Union (EU). While the Snapper products have all met the stricter residential class B limits for FCC and EU standards, for FCC the paperwork has only been issued for class A.

TEST PROCEDURE

The tests have been carried out at a NAMAS and FCC approved laboratory. The Snapper was fitted into a suitable computer, a camera connected and standard software (such as 's24') run to produce a live image on the screen.

Snapper Type	Computer Used
PCI Based Products	Early tests used a Dell with a Pentium 133, later tests used a Dell with a Pentium II-333.
ISA Based Products	A Dell with a Pentium 133.
SBus Based Products	A Sun SPARCstation 20.
PMC Based Products	A Cetia R1000-1 with Motorola CVME603e.

SUGGESTIONS FOR MINIMISING EMC IN A SYSTEM USING SNAPPER

While Snappers have been tested to ensure compliance, being a board level product, care is needed to produce a compliant system.

Check that other parts of the system such as the computer and camera are EMC compliant (ask the manufacturer for test results if the documentation is unclear as to which standards are being met).

Correctly specified cables are essential for good EMC performance. Analogue coax cables with an overall screen will have better EMC performance than coax without an overall screen. For control I/O and digital cameras ensure that all connecting cables have good screens connected to the shells of the connectors at both ends of the cable. Fitting ferrite rings will improve performance. Note that the analogue breakout cables such as CBL-25D-SNP are intended to allow rapid prototyping of Snapper systems and are not intended to be used in production systems. However digital cables such as CBL-68-AIA-A-6M are fully shielded for production use (except for CBL-68-DALSA-CLC-A-3M where the ribbon cable connectors needed for the camera cannot easily be screened).

IMMUNITY

European tests under EN 50082-1:1992 include immunity as well as emissions testing. The standards tested to are:

IEC 801-2:1984 ESD @ 8kV

IEC 801-3:1984 EMS 3V/m unmodulated 27-500MHz

IEC 801-4:1988 EFT 1kV mains port

IEC 801-4:1988 EFT 500V signal ports

Tests on recent products have also included EN61000-4-3 EMS 3V/m modulated 27-1000MHz.

Digital Snappers (SNP-DIG16 and variants) show no degradation during these tests. Analogue Snappers (SNP-16, SNP-24 and variants) show slight noise on the image during some of these tests. This noise stops as soon as the test is stopped without need for any operator intervention.

Compliance Notices

USA: FCC NOTICE

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference in which case you will be required to correct the interference at your own expense.

EUROPE: EU DECLARATION OF CONFORMITY

We, Active Silicon Limited, declare under our sole responsibility that the products:

PCI Bus Interface Board family, codes PCI-BIB and PCI-BIB-NC,
ISA Bus Interface Board family, codes ISA-BIB and ISA-JPG,
SBus Bus Interface Board family, codes SBUS-BIB and SBUS-BIB-NC,
Snapper-16, code SNP-16,
Snapper-24 family, codes SNP-8 and SNP-24,
Snapper-DIG16, code SNP-DIG16,
Snapper-PCI-16, code SNP-PCI-16,
Snapper-PCI-24 family, codes SNP-PCI-8 and SNP-PCI-24,
Snapper-PMC-24 family, codes SNP-PMC-8 and SNP-PMC-24,
Snapper-PMC-DIG16, code SNP-PMC-DIG16

manufactured by:

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to which this declaration relates, is in conformity with the requirements of the EU Directives:

- 89/336/EEC Electromagnetic Compatibility Directive, amended by 92/31/EEC and 93/68/EEC.

by meeting the following standards:

- EN 55022:1994 (class B).
- EN 50082-1:1992.

Signed:



Chris Beynon
Technical Director, Active Silicon Limited.

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