exida
CERTIFICATION

The manufacturer
may use the mark:

CERTIFIED · IEC 61508 · SIL 3 CAPABLE · exida

Valid until October 1, 2017
Revision 1.0 September 26, 2014

ANSI
ANSI Accredited Program
PRODUCT CERTIFICATION
#1004

Certificate / Certificat
Zertifikat / 合格証

RAD 1406037 C001

exida hereby confirms that the:

FPGA-Based Safety Controller (FSC) RadICS
produced by **RPC Radiy**
29 Geroyiv Stalingrada Street
Kirovograd, Ukraine

Has been assessed per the relevant requirements of:

IEC 61508 : 2010 Parts 1-7

and meets requirements providing a level of integrity to:

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type B Element

SIL 3 @ HFT = 0; Route 1_H
**PFD_{AVG} and Architecture Constraints
must be verified for each application**

Safety Function:
The FSC will read input signals, perform user-defined application layer logic and write results to the output signals within the stated response time.

Application Restrictions:
The unit must be properly designed into a Safety Instrumented Function per the Safety Manual requirements.

Evaluating Assessor

Certifying Assessor

Certificate / Certificat / Zertifikat / 合格証

RAD 1406037 C001

Systematic Capability: SC 3 (SIL 3 Capable)

Random Capability: Type B Element

SIL 3 @ HFT=0; Route 1_H

**PFD_{AVG} and Architecture Constraints
must be verified for each application**

FPGA-Based Safety Controller (FSC) RadICS

Systematic Capability :

The product has met manufacturer design process requirements of Safety Integrity Level (SIL) 3. These are intended to achieve sufficient integrity against systematic errors of design by the manufacturer.

A Safety Instrumented Function (SIF) designed with this product must not be used at a SIL level higher than stated.

Random Capability:

The SIL limit imposed by the Architectural Constraints must be met for each element.

SIL Verification:

The Safety Integrity Level (SIL) of an entire Safety Instrumented Function (SIF) must be verified via a calculation of average Probability of Failure on Demand (PFD_{AVG}), or Probability of Failure per hour (PFH), considering redundant architectures, proof test interval, proof test effectiveness, any automatic diagnostics, average repair time and the specific failure rates of all products included in the SIF. Each subsystem must be checked to assure compliance with minimum hardware fault tolerance (HFT) requirements.

The following documents are a mandatory part of certification:

Assessment Report: RAD 14-06-037 R002 V1R0 61508 Assessment - FSC

Safety Manual: D11.1 - Radiy FSC Product Safety Manual V1R2

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CERTIFICATION

64 N Main St
Sellersville, PA 18960

T-002, V3R4-3