FRAMEWORK DOCUMENT

ODDC Overview

ODD Conformance Determination Framework

Version v2.0 · February 2026 · PUBLIC DOCUMENT

ODDC Overview · v2.0

SENTINEL AUTHORITY — ODD Conformance Determination

ODDC Overview

ODD Conformance Determination Framework

Version 2.0 — February 2026 — Public Document

ODDC (ODD Conformance Determination\

autonomous systems operate within formally declared boundaries with three-tier enforcement. This document describes the framework components, attestation scope, and conformance process.

1. Introduction

1.1 Purpose

ODD Conformance Determination (ODDC\

autonomous systems. ODDC provides standardized, verifiable evidence of bounded operation that serves as a first-order risk control input for underwriting review of autonomous infrastructure.

1.2 Framework Components

The ODDC framework consists of three integrated components:

Component

Description

ODD

Operational Design Domain — Formal specification of operational boundaries, including quantitative tolerances and constraints.

ENVELO

Enforced Non-Violable Execution-Limit Override — Three-tier runtime enforcement architecture: self-correction on ODD approach, Minimum Risk Condition on ODD breach, and hard halt at the ENVELO wall.

CAT-72

Conformance Assessment Test — 72+ hour evidentiary procedure demonstrating bounded operation and verification of all three enforcement tiers.

1.3 What ODDC Is Not

ODDC explicitly does not constitute:

· Regulatory approval or certification

· Safety certification (e.g., IEC 61508, ISO 26262\

· Product certification or quality mark

· Guarantee of system performance or reliability

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· Insurance or warranty of any kind

2. Attestation Scope

2.1 What ODDC Attests

Upon successful conformance determination, ODDC attests that at the time of determination:

Category

Attestation

ODD Specification

Applicant has formally specified an Operational Design Domain with quantitative boundaries, tolerances, and identified constraints.

Operational Evidence

System demonstrated stable operation within declared ODD through 72+ hours of

ENVELO Enforcement

Three-tier enforcement architecture is present and functional: Tier 1 self-correction on

boundary approach, Tier 2 Minimum Risk Condition on ODD breach, Tier 3 hard halt at the ENVELO wall.

Audit Trail

Tamper-evident audit records generated for all enforcement events and tier transitions with cryptographic integrity.

2.2 What ODDC Does Not Attest

3. Conformance Process

The conformance process follows five phases:

Phase 1: Application

Submit ODD specification, system architecture, ENVELO implementation approach, and declared MRC for each operational context.

Phase 2: Scope Assessment

Phase 3: CAT-72 Testing

with cryptographic evidence generation. All three enforcement tiers verified across three test phases.

cumulative CAT-72 testing

Phase 4: Determination

Conformance determination issued with certificate hash and registry publication.

Phase 5: Maintenance

Ongoing operation with renewal testing prior to expiration.

4. Related Documents

and format

ENVELO Interlock