ALP LAB

E1M-AEN Conflict Minerals Declaration

3TG due diligence — CMRT companion statement

Document Number: CM-AEN-001 **Revision:** 0.5 **Date:** November 2026 **Status:** Preliminary

alplab.ai

© 2026 Alp Lab AB. All rights reserved.

Table of Contents

1 Declaration . . . 3
2 Scope & Regulatory Framework . . . 3
3 3TG Content Analysis . . . 3
4 Due-Diligence Approach . . . 4
5 Supplier CMRT Collection Basis . . . 4
6 Declaration Level . . . 5
7 Smelter / Refiner List . . . 5
8 Limitations . . . 5
9 Authorisation . . . 5
10 Revision History . . . 6

List of Tables

Table 1 Applicable conflict-minerals framework . . . 3
Table 2 3TG presence in the E1M-AEN module . . . 3
Table 3 Component-supplier CMRT collection tracker . . . 4
Table 4 CMRT declaration options . . . 5
Table 5 Document revision history . . . 6

Copyright © 2026 Alp Lab AB

1 Declaration

Conflict Minerals Declaration **Alp Lab AB** is committed to the responsible sourcing of the "conflict minerals" — **tin, tantalum, tungsten and gold (3TG)** — used in the **E1M-AEN System-on-Module** family (`E1M-AEN301` through `E1M-AEN803`). Alp Lab does not procure 3TG directly; its exposure is entirely **downstream**, through the electronic components in the module. Alp Lab conducts supply-chain due diligence aligned with the **OECD Due Diligence Guidance** and the **Responsible Minerals Initiative (RMI)**, and reports 3TG smelter/refiner data to customers using the **RMI Conflict Minerals Reporting Template (CMRT)**.

Status of this issue: This document is **Preliminary**. The 3TG **content analysis** (Section 3) is complete and derived from the released BOM. The **smelter list** (Section 7) and the customer-facing **CMRT XLSX** are finalised only once the component-supplier CMRTs in Section 5 are collected and rolled up; until then the smelter declaration is **not yet warranted**.

2 Scope & Regulatory Framework

This declaration covers the assembled E1M-AEN module, hardware revision R3, as delivered, across all seven MPN variants sharing the common E1M™ BOM. It addresses the conflict- minerals obligations arising under:

Instrument	Relevance
US Dodd-Frank Act §1502 (SEC rule)	3TG originating in the DRC and adjoining countries; drives customer SEC filings Alp Lab supports as a supplier.
EU Conflict Minerals Reg. (EU) 2017/821	Due-diligence obligations for Union importers of 3TG; supply-chain transparency for downstream users.
OECD Due Diligence Guidance	The five-step risk-based framework Alp Lab's diligence is aligned to.
RMI CMRT / RMAP	Standardised reporting template (CMRT) and the Responsible Minerals Assurance Process (RMAP) for conformant smelters/refiners.

Table 1 Applicable conflict-minerals framework

3 3TG Content Analysis

The table below maps each conflict mineral to its presence in the E1M-AEN, derived from the released R3 BOM (230 fitted electrical placements, 61 line items, 23 suppliers) and the module's Pb-free SAC assembly process. This determines which supplier CMRTs are material.

Mineral	Present	Primary source	Where in the module
Tin (Sn)	Yes	SAC solder + terminations	Assembly solder (Sn-Ag-Cu) and the tin-plated terminations of every placement — board-wide
Gold (Au)	Yes	Finishes + bond wires	IC bond wires; BGA/QFN/WLCSP package finishes
Tungsten (W)	Trace	IC die metallization	Tungsten plugs/vias inside some IC silicon; declared via supplier CMRT
Tantalum (Ta)	No	—	Not intentionally present — every capacitor on the module is a ceramic MLCC (the RTC backup capacitor is not fitted in the standard build); the BOM contains **no tantalum capacitors**

Table 2 3TG presence in the E1M-AEN module

Copyright © 2026 Alp Lab AB

> **Note:** **Key simplification:** the E1M-AEN contains **no tantalum**. Every capacitor fitted on the module is a ceramic MLCC (the RTC backup supercapacitor is not fitted in the standard build), so the tantalum row of the CMRT is declared "not contained" — removing one of the four minerals and its smelter-collection burden entirely. Tin and gold are the materially-present 3TG; tungsten is trace and carried through supplier declarations.

4 Due-Diligence Approach

Because Alp Lab's 3TG exposure is entirely downstream, its diligence consists of **cascading the CMRT request** to component suppliers and aggregating their declared smelters:

1. **Collect** a current RMI CMRT from each component supplier (Section 5).
2. **Aggregate** the declared smelters/refiners for tin, tungsten and gold across all suppliers into a single module (or company) smelter list.
3. **Screen** each declared smelter against the **RMI RMAP conformant-smelter list**; flag any non-conformant or unlisted smelter for follow-up.
4. **Report** the result to customers on the RMI CMRT XLSX, re-issued as supplier data and the RMAP list are updated.

5 Supplier CMRT Collection Basis

The module smelter list is a roll-up of the supplier CMRTs below. Suppliers of **tantalum-only** parts are not applicable (no tantalum in the BOM); every supplier is nonetheless a potential source of tin (terminations) and, for IC/connector suppliers, gold.

Manufacturer	Material 3TG (this BOM)	CMRT on file
Texas Instruments	Sn, Au, W	Pending
Alif Semiconductor	Sn, Au, W	Request
BDE Technology	Sn, Au, W	Request
ISSI	Sn, Au, W	Pending
Winbond Electronics	Sn, Au, W	Pending
Renesas Electronics	Sn, Au, W	Pending
onsemi	Sn, Au, W	Pending
NXP Semiconductors	Sn, Au, W	Pending
Nexperia	Sn, Au, W	Pending
Diodes Incorporated	Sn, Au, W	Pending
Kinetic Technologies	Sn, Au, W	Pending
Murata Electronics	Sn, Au	Pending
TDK Corporation	Sn, Au	Pending
KEMET	Sn, Au	Pending
Yageo	Sn, Au	Pending
Samsung Electro-Mechanics	Sn, Au	Pending
Taiyo Yuden	Sn, Au	Pending
Würth Elektronik	Sn, Au	Pending
Delta Electronics / Cyntec	Sn, Au	Pending
Micro Crystal AG	Sn, Au	Pending
ECS Inc.	Sn, Au	Pending
Raltron Electronics	Sn, Au	Pending
KYOCERA AVX	Sn, Au	Pending

Copyright © 2026 Alp Lab AB

Table 3 Component-supplier CMRT collection tracker

> **Note:** Most suppliers in this list publish a current company-level RMI CMRT on their compliance pages; **Request** marks the two (Alif, BDE) that need a direct ask — bundled with the same reliability / materials requests. Source locations are maintained in the working index `supplier-cmrt-index.md`.

6 Declaration Level

Two CMRT deliverables are available to customers:

Level	Description
Company (default)	A single Alp Lab AB CMRT declaring 3TG sourcing across all products. Lower maintenance, accepted by most customers, and the recommended default.
Product	A CMRT scoped specifically to the E1M-AEN smelter roll-up. Available on request where a customer's due-diligence requires product-level granularity.

Table 4 CMRT declaration options

7 Smelter / Refiner List

> **Note:** **Pending supplier CMRT collection.** The aggregated tin, tungsten and gold smelter/refiner list — with each entry's RMI Standard Smelter ID and RMAP conformance status — is populated here once the supplier CMRTs in Section 5 are received. The tantalum section is declared **not contained**.

8 Limitations

1. **Downstream declaration.** Alp Lab does not source 3TG directly; the smelter list is only as complete and current as the supplier CMRTs it aggregates.
2. **Per-revision / periodic re-issue.** Re-issued on a BOM change and periodically as suppliers publish updated CMRTs and the RMAP conformant list changes.
3. **XLSX is the formal artifact.** This document is the companion statement; the machine-readable RMI CMRT workbook is the deliverable customers ingest.

9 Authorisation

Signed for and on behalf of **Alp Lab AB**:

_____

Signature

Name: _____

Title: _____

Date: _____

Place: _____

Copyright © 2026 Alp Lab AB

10 Revision History

Revision	Changes	Date
0.1	• Initial preliminary declaration with BOM-derived 3TG content analysis (no tantalum; Sn/Au material, W trace) and the 23-entry supplier CMRT collection tracker. • Awaiting supplier CMRTs and smelter roll-up before release.	June 2026
0.2	• Rebuilt for the R3 bill of materials: 230 fitted placements, 61 line items, 23 suppliers. • The RTC backup supercapacitor is no longer fitted in the standard build, so Seiko Instruments is removed from the collection tracker, as are STMicroelectronics (no fitted part) and I-PEX (the on-module RF connector is DNP in production, an assembly option only). • Tracker is now 23 entries. • Tantalum statement updated (ceramic MLCC only).	October 2026
0.3	• Release history: every entry formatted as a bullet list.	October 2026
0.4	• Table of Contents: each entry links to its section; the front-matter lists are set tighter.	October 2026
0.5	• Product name on page 1 links to the product page on alplab.ai. • On-module parts named by function; component designators removed.	November 2026

Table 5 Document revision history

Copyright © 2026 Alp Lab AB