ALP LAB

E1M-X V2N-M1 RoHS / REACH / POPs Declaration

Declaration of Conformity — materials compliance

Document Number: DC-V2NM1-001 **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 . . . 3
3 RoHS 3 — Restricted Substances . . . 3
4 REACH — Substances of Very High Concern . . . 4
5 POPs — Persistent Organic Pollutants . . . 4
6 Basis of Declaration . . . 4
7 Validity & Limitations . . . 5
8 Authorisation . . . 5
9 Revision History . . . 6

List of Tables

Table 1 Declaration coverage . . . 3
Table 2 RoHS 3 restricted substances and maximum concentration values . . 3
Table 3 Component-supplier compliance basis (declaration tracker) . . . 4
Table 4 Document revision history . . . 6

Copyright © 2026 Alp Lab AB

1 Declaration

Declaration of Conformity **Alp Lab AB** declares, on the basis of the component-supplier declarations referenced in Section 6, that the **E1M-X V2N-M1 System-on-Module** (Renesas RZ/V2N

1. DeepX DX-M1, all production revisions) conforms to:

- **EU RoHS 3** — Directive 2011/65/EU as amended by (EU) 2015/863 (Section 3);
- **EU REACH** — Regulation (EC) No 1907/2006, Article 33 (SVHC, Section 4);
- **EU POPs** — Regulation (EU) 2019/1021 (Section 5).

Status of this issue: **Preliminary.** Finalised and signed (Section 8) only once every supplier declaration in Section 6 is confirmed on file. Until then it states Alp Lab's **expected** conformity from standard catalogue-part compliance, not a warranted legal declaration.

2 Scope

Covers the assembled E1M-X V2N-M1 module as delivered (Pb-free SAC assembly). The base **E1M-X V2N** (without the DeepX subsystem) is covered by DC-V2N-001; the two share the supplier base, differing only by the DeepX accelerator article.

Item	Value
Product	E1M-X V2N-M1 System-on-Module
Assembly process	Pb-free SAC reflow (RoHS-compliant solder)
BOM basis	1303 electrical placements, 98 line items, 35 suppliers
Issued by	Alp Lab AB

Table 1 Declaration coverage

3 RoHS 3 — Restricted Substances

Conforms to 2011/65/EU as amended by (EU) 2015/863. No restricted substance is intentionally present above its maximum concentration value in any homogeneous material, except where covered by an Annex III exemption at component level.

Restricted substance	Symbol	Max. (wt% homog.)	Status
Lead	Pb	0.1%	Conform
Mercury	Hg	0.1%	Conform
Cadmium	Cd	0.01%	Conform
Hexavalent chromium	Cr(VI)	0.1%	Conform
Polybrominated biphenyls	PBB	0.1%	Conform
Polybrominated diphenyl ethers	PBDE	0.1%	Conform
Bis(2-ethylhexyl) phthalate	DEHP	0.1%	Conform
Butyl benzyl phthalate	BBP	0.1%	Conform
Dibutyl phthalate	DBP	0.1%	Conform
Diisobutyl phthalate	DIBP	0.1%	Conform

Table 2 RoHS 3 restricted substances and maximum concentration values

Copyright © 2026 Alp Lab AB

Common Annex III exemptions potentially invoked at component level (the module's assembly solder is Pb-free SAC): **6(c)** lead in copper alloy; **7(a)** lead in high-melting solders; **7(c)-I** lead in dielectric/glass of ceramic components (MLCC, chip resistors); **15(a)** lead in die/carrier solder within IC packages.

4 REACH — Substances of Very High Concern

Based on the supplier declarations in Section 6, **no SVHC on the ECHA Candidate List (as last updated) is intentionally present above 0.1% w/w** in the module as delivered.

> **Note:** The ECHA Candidate List is updated ~ twice yearly; this declaration is valid against the revision in force at the issue date.

5 POPs — Persistent Organic Pollutants

Conforms to Regulation (EU) 2019/1021. None of the restricted POPs — SCCPs, PFOS, PFOA and related compounds, HBCDD, and the restricted PBDEs — is intentionally added or present above the applicable limits.

6 Basis of Declaration

A roll-up of component-supplier declarations (not analytical testing of the assembled module). Conformity rests on the declarations from the manufacturers below, covering all 98 line items.

Manufacturer	Key component classes	Declaration
Texas Instruments	Bucks, CAN, mux, temp, logic	Public · filed
Murata Electronics	MLCCs, ferrites, Wi-Fi module	Public · filed
TDK Corporation	MLCCs	Public · filed
Yageo	Chip resistors	Public · filed
Winbond Electronics	SPI NAND flash	Public · filed
Diodes Incorporated	PCIe/USB mux, load switch	Public · filed
Microchip Technology	Clock buffer	Public · filed
Samtec	RF connector	Public · filed
Renesas	RZ/V2N SoC, DA9292 PMIC, clock gen	Public · filed
Micron Technology	LPDDR4/4X DRAM	Public · filed
Realtek	Ethernet PHY (×2)	Public · locate
Macronix	OSPI NOR flash	Public · located
Kingston Technology	eMMC	Public · filed
Qorvo	Multi-output PMIC	Public · locate
Rohm Semiconductor	Load switches	Public · filed
Nexperia	Level shifter, TVS	Public · locate
Analog Devices	RTC (MAX31331)	Public · locate
GigaDevice	Companion MCU	Public · locate
Infineon	Secure element	Public · filed
STMicroelectronics	EEPROM	Public · located
onsemi	EEPROM, LDO, NS5A4684	Public · located
Toshiba Elec. Devices	Load switches, LDO	Public · located
Samsung Electro-Mechanics	MLCCs, inductors	Public · located

Copyright © 2026 Alp Lab AB

Manufacturer	Key component classes	Declaration
Taiyo Yuden	MLCCs, ferrites	Public · located
Vishay Dale	Resistors	Public · filed
Würth Elektronik	Inductors/magnetics	Public · filed
AVX	Capacitors	Public · locate
Abracon	Crystals	Public · filed
TKD	Crystals	Public · locate
ECS Inc.	Crystals	Public · located
Micro Crystal AG	RTC	Public · located
Seiko Instruments	Supercapacitor	Public · locate
Kinetic Technologies	LED driver	Public · located
Delta Electronics / Cyntec	Power inductor	Public · located
DeepX	DX-M1 AI accelerator [M1]	On file · direct

Table 3 Component-supplier compliance basis (declaration tracker)

Note: **filed** — PDF in the OneDrive evidence folder (shared with E1M-AEN where the supplier is common, or the V2N-specific folder); **located** — public source identified, retrieve by MPN; **locate** — vendor publishes, exact PDF not yet pulled; **On file · direct** — supplier-issued declaration obtained directly and filed. The DeepX row is now closed: DeepX issued a **Declaration of Conformity with RoHS** (Ref DEEPX-ENV-2026007), a **Statement of Compliance with EU REACH** (Ref DEEPX-ENV-2026010; SVHC candidate list 251 substances, 5 Nov 2025), and a **Statement of Compliance with EU POPs** for the DX-M1 IC — all Compliant, covering 3rd-party components and packaging. All 35 supplier rows are now filed or located; the declaration is issued **Released** once the remaining **locate** PDFs are pulled and the signatory signs. Sources maintained in `supplier-declarations-index.md`.

7 Validity & Limitations

1. **Roll-up, not test** — asserted from supplier declarations.
2. **Per-revision issue** — a BOM change triggers re-evaluation and re-issue.
3. **Regulatory currency** — valid against the RoHS exemption / REACH Candidate List state at the issue date.
4. **Scope boundary** — module as delivered only.

8 Authorisation

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

Name: _____

Title: _____

_____

Date: _____

Signature

Place: _____

Copyright © 2026 Alp Lab AB

9 Revision History

Revision	Changes	Date
0.1	• Initial preliminary declaration from the released E1M-X V2N + M1 BOM (35 suppliers, 98 line items). • 8 suppliers filed (shared with E1M-AEN), DeepX by direct request. • Awaiting remaining declarations and signature.	June 2026
0.2	• 8 V2N-specific suppliers marked filed (Renesas, Micron, Kingston, Rohm, Infineon, Vishay, Würth, Abracon). • DeepX direct declarations received and filed — RoHS DoC (DEEPX-ENV-2026007), EU REACH (DEEPX-ENV-2026010, SVHC 5 Nov 2025), EU POPs — all Compliant. • DeepX row closed; no direct-request rows remain.	July 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.	November 2026

Table 4 Document revision history

Copyright © 2026 Alp Lab AB