DEFENSE LOGISTICS AGENCY
LAND AND MARITIME
POST OFFICE BOX 3990
COLUMBUS, OH 43218-3990

March 18, 2025

Mr. Brad Little
General Manager
Teledyne e2v Hirel Electronics
765 Sycamore Drive
Milpitas, CA 95035

Dear Mr. Little:

Re: Full Certification Class Q (B, M), V(S) for MIL-PRF-38535; FSC 5962; VQC-25-039394; Tran.

Teledyne e2v Hirel Electronics has demonstrated DLA Land and Maritime compliance with MIL-PRF-38535, the QML specification used by the Department of Defense (DoD) for monolithic integrated circuits that operate in severe environments.

This letter supersedes DLA Land and Maritime-VQ (VQC-17-030818) to reflect the current certification status of Teledyne e2v Hirel Electronics as documented in their current QM Plan, dated 09/08/2023.

In addition, the parts that are manufactured using the certified technology flows are being listed on the QML-38535. This will allow Teledyne e2v Hirel Electronics to mark parts with "QML" or "Q". These designators have been authorized by the DoD for parts that have been produced to a QML specification (i.e., one which allows less government oversight), the use of world-wide commercial production lines, reduced finished product testing based on statistical process control (SPC), and other cost advantages.

Testing must be performed using the facilities and methods listed in the Laboratory Suitability letter (VQC-25-039395), or at facilities approved by the Teledyne e2v Hirel Electronics Technical Review Board using its MIL-PRF-38535 QML Quality System.

This certification is subject to the conditions in DoD 4120.24-M, Defense Standardization Program and SD-6.

Any and all of the facilities mentioned on the enclosure are subject to an audit by the Qualifying Activity at any time. Offshore facilities are subject to the conditions of MIL-PRF-38535.

QPL/QML manufacturers shall notify the qualifying activity immediately after learning of a potential issuance of a GIDEP alert, problem advisory or major quality/reliability problem on their QPL/QML products. Failure to provide prior notification may be grounds for removal from

QML-38535.

In addition, it is requested that the following activities be reported promptly to DLA Land and Maritime:

1. Changes to certified facilities, process flows, or approved testing subcontractors
2. Problem evaluation and a corrective action when:
   a. A Technology Conformance Inspection (TCI) failure has been validated
   b. The reliability of shipped parts is questionable.
3. Test optimization, including:
   a. Implementation - paragraph J.3.12, Appendix J, MIL-PRF-38535
   b. Changing, suspending or canceling a prior test optimization
4. Additions or deletions of parts in the QML-38535
5. Change of company QML contact or other key QML personnel

This certification is valid until terminated by written notice from DLA Land and Maritime, and, if warranted, may be withdrawn at any time.

If you have any questions, please contact Mr. Vinh V Tran at (614) 692-0606.

Sincerely,

ADAMS.MICHAEL.S.1230230427

Digitally signed by ADAMS.MICHAEL.S.1230230427
Date: 2025.03.21 07:24:13 -04'00'

MICHAEL S. ADAMS
Chief
Custom Devices Branch

Enclosure

Operation / Facility	**Location**	**Technology and Process Capabilities**						
Design: Teledyne e2v	- Milpitas, CA	- As defined in e2v Doc SCD-14, "Device Design Requirements"	**Level:** n/a	**Die Attach Material:** n/a	**Wire Bond Material:** n/a	**Lead Finishes:** n/a	**Wafer Saw:** n/a	**Marking:** n/a
Wafer Fabrication: Macronix	Hsinchu, Taiwan	6" CMOS, 0.5um	n/a	n/a	n/a	n/a	n/a	n/a
Microchip Technology (Micrel Semiconductor)	California (San Jose)	6", 8" Bipolar, 1.2um	n/a	n/a	n/a	n/a	n/a	n/a
X-Fab	Lubbock, TX	6" and 8" CMOS, Bipolar, 0.6um	n/a	n/a	n/a	n/a	n/a	n/a
Assembly: *(PS-107)		**Package Types:**	**Level:**	**Die Attach Material:** *(PS-101), (SOP-10-0014)	**Wire Bond Material:** *(PS-104)	**Lead Finishes:** *(SOP-06-0043)	**Wafer Saw:** *(SOP-10-0018)	**Marking:** *(PS-108)
Teledyne e2v	Milpitas, CA	Cerdip (8 - 32), Cerpak (14 - 28), Cerquad (24 - 208),CQFP (24 - 208), Flatpack (10 - 56), JLCC (28 - 84), LCC (16 - 84), PGA (40 - 160), Sidebraze (8 - 64)	Q & V	Silver Glass QMI 2569, AuSi Eutectic	Al 1.0, 1.25	Solder dip using Sn63Pb37, Gold plated	Kerf line width: >.003" Wafer thickness: .011 - .025"	Ink Laser: HGM
Millenium Microchip Technology (MMT Thailand) Uses an Approved QML Flow	Bangkok, Thailand	Cerdip (8 - 40), Cerpak (14 - 28), Cerquad (24 - 208), CQFP (24 - 208), Flatpack (10 - 56), JLCC (28 - 84), LCC (16 - 84), PDIP (24, 28), PGA (40 - 160), PLCC (28 - 84), Sidebraze (8 - 64), SOIC (8),	Q & V	Silver Glass QMI 2419 and QMI 3555, AuSi Eutectic, , JMI-7000	Al 0.8, 1.0, 1.25, 2 mils Au 1.0, 1.3 mils	Solder dip using Sn63Pb37, Gold plated	Kerf line width: >.0016" Wafer thickness: .010 - .016"	Ink Laser
Team Pacific QML Assembly per e2v procedure SCD-12	Taguig City, Philippines	TO Cans (2 12)	n/a	AuSi Eutectic, 84-1 LMI conductive epoxy	Al 1.25, 2, 3, 5, 8, 10, 15 mils	Solder dip using Sn63Pb37 or Sn96.5/Ag3/Cu0.5	Kerf line width: >.002" Wafer thickness: .003 - .030"	N/A
QCI / Tests / Screening / Misc. Operations:			**Level:**	**Die Attach Material:**	**Wire Bond Material:**	**Lead Finishes:**	**Wafer Saw:**	**Marking:**
As baselined in the Laboratory Suitability Letter	As baselined in the Laboratory Suitability Letter	As baselined in the Laboratory Suitability Letter	n/a	n/a	n/a	n/a	n/a	n/a

*Applicable Teledyne Hirel Electronics Process procedures

Teledyne e2v Hirel Electronics Current SMD die Bank

Die Manufacturer	Mark	Class
AMD	QD	Q
Cypress	Q, C	Q
Harris	QD	Q
Lattice	C	M
Maxim Integration	C	M
National	Q	Q
QP Semi 11	Q	Q
QP Semi 3	Q	Q
QP Semi 7	Q	Q
Raytheon	Q	Q
TRW	C	M
Zilog	C	M
Atmel	C, QD	M
Fairchild	QD	Q
IDT	Q	Q
Linear Technology	Q	Q
Motorola	QD, Q	Q
QP Semi 12	Q	Q
QP Semi 5	Q	Q
QP Semi 8	Q	Q
TI	Q	Q
Waferscale	C	M