**PRODUCT/PROCESS**
CHANGE NOTIFICATION

PCN APMS/26/16210

# Analog, Power, MEMS & Sensors (APMS)

## Analog_EWS ONLY_ CTN to SGP :
## Qualification of SGP (Singapore) as new EWS Location.

Issue date: 3rd August 2026

**Description of the change**

Following Corporate PCI 15383 (Early Notification), about Company reshaping program, please be informed that EWS (Electrical Wafer Sorting) of Analog products listed here below will be transferred from ST Catania(Italy) to ST Singapore.

**Change Summary**:

| | Former | New |
|---|---|---|
| EWS/Location | ST Catania | ST Singapore |

**Traceability:**

Internal Traceability – Date code-
Step tracked in ST production systems and available real time on demand

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## Affected products

Refer to attached table for involved Commercial Products.
Specific devices not expressly listed in this table are included in this change.

| CP code involved in qualification |
|---|
| HXC1305TR |
| VN9D5D20FN |
| VN9D5D20FNK |
| VN9D5D20FNKTR |
| VN9D5D20FNTR |
| VNH7070BASTR |
| VNH7100AS-E |

| |
|---|
| Dual die (one of the dice qualified) |
| Qualification on going |
| Qualified |

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## Reason

Die manufacturing: ST manufacturing reshaping program - Corporate PCI - Early Notification.

## Date of implementation

First shipments forecast: one month after Qualification completion date (see below qualification results date for reference).

## Impact of change

| | |
|---|---|
| Form | Not Impacted |
| Fit | Not Impacted |
| Function | Not Impacted |
| Reliability | Not Impacted |
| Processibility | Not Impacted |

## Qualification of the change (plan)

Qualification will be performed according to ST guidelines and ZVEI (ID SEM-TF01) for Automotive products.

| | | Compliant with ST internal spec and ZVEI Guideline Product and Process Changes (PCN) 5.0 (Automotive products) | | |
|---|---|---|---|---|
| | | Line readiness | ED (Electrical Distribution, Cpk, analysis *) | Parametric analysis (Yield, Bin to Bin *) |
| Product | | • | • | • |

* Comparing wafers in old vs. new location

## Disposition of former products

Delivery of current products will be done until stock depletion.

## Qualification results

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Qualification report including qualification results is enclosed at the end of this document:

**Qualification completion date: Mar-2026.**

## Sampling plan

Customer samples are not planned; the switch of production will occur at product validation.

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# Qualification Report

## Analog_EWS ONLY_ CTN to SGP :
## Qualification of SGP (Singapore) as new EWS Location.

| General Information | |
|---|---|
| Commercial Product | See above list |
| Product perimeter | Analog |
| Product group | APMS |
| Maturity level | Qualified |

| Locations | |
|---|---|
| Diffusion Plant | Multiple |
| Assembly Plant | Multiple |
| Reliability Lab | N/A |

| Assessment | |
|---|---|
| Pass | X |
| Fail | |

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# 1. APPLICABLE AND REFERENCE DOCUMENTS

| | |
|---|---|
| **ZVEI** | Change Standard Methodology |

# 2. GLOSSARY

| | |
|---|---|
| **EWS** | Electrical Wafer Sorting |

# 3. RELIABILITY EVALUATION OVERVIEW

## 3.1. Objective

The objective of this report is to qualify the transfer of EWS (Electrical Wafer Sorting) from ST Singapore to ST Crolles for products listed in PCN.

Qualification plan conducted following ZVEI matrix as follow:

| | ZVEI DEFAULT | ZVEI WITH CONDITIONS | ST SELECTED | REASON FOR EXCEPTION OF TESTS |
|---|---|---|---|---|
| AEC-Q101 Revision E | • | • | X | |
| Parametric Verification | • | • | X | No characterization planned as only EWS is transferred* |
| Parameter-Analysis: Comparison of current with changed device characterization, electrical distribution | • | • | X | |

*Characterization is meant for Final Test transfer, not applicable for this EWS transfer

## 3.2. Conclusion

Qualification Plan requirements have been fulfilled without exception. Line readiness tests, Electrical Distribution, Cpk, Yield and Bin to Bin analysis and comparison have all shown positive results.
Based on these results, all devices are ready for the EWS transfer from ST Catania to ST Singapore.

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# 4. PRODUCT OR TEST VEHICLE CHARACTERISTICS

## 4.1. Device description

Refer to ST specification:

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### 4.2. Construction note

| | All parts listed in page PCN |
|---|---|
| **Wafer/Die fab. information** | |
| Wafer fab manufacturing location | multiple |
| Technology | multiple |
| **Wafer Testing (EWS) information** | |
| Electrical testing manufacturing location | ST Singapore |

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# 5. TEST RESULTS SUMMARY

## 5.1. Lot information

| Lot # | Part Number | Comment |
|---|---|---|
| Lot 1 | VN9D5D20FN | |
| Lot2 | VN9D5D20FNTR | |
| Lot 3 | VN9D5D20FNTR | |
| Lot 4 | HXC1305TR | |
| Lot 5 | VNH7070BASTR | |

Detailed results in below chapter will refer to these references.

## 5.2. Test plan

| Qualification of the change (plan) |
|---|
| Qualification will be performed according to and ST guidelines and ZVEI (ID SEM-TF01) for Automotive products. |

| | Compliant with ST internal spec and ZVEI Guideline Product and Process Changes (PCN) 5.0 (Automotive products) | | |
|---|---|---|---|
| | Line readiness | ED (Electrical Distribution, Cpk, analysis *) | Parametric analysis (Yield, Bin to Bin *) |
| Product | • | • | • |

*comparing wafers in ol vs. new location

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### 5.3. results summary

| Item | Qualification activity | Sample size | VN9D5D20FN | VN9D5D20FNTR | VN9D5D20FNTR | HXC1305TR | VNH7070BASTR |
|---|---|---|---|---|---|---|---|
| EWS line transfer | Line readiness | 1 lot | PASS | PASS | PASS | PASS | PASS |
| | ED (Electrical Distribition, Cpk analysis) | 1 full wafers | PASS | PASS | PASS | PASS | PASS |
| | Parametric analysis (Yield, Bin to Bin) | 1 full wafers | PASS | PASS | PASS | PASS | PASS |

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