YUNTU 云途半导体

# YTM32B1LE0x Test Flow Change Report



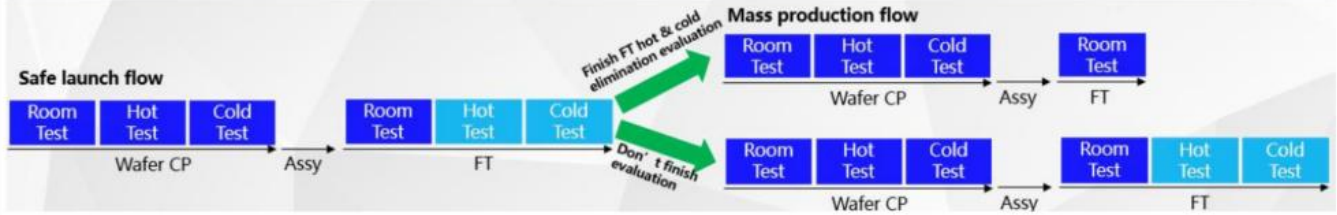
YUNTU MICROELECTRONICS

SAFETY & SECURITY & HIGH-QUALITY

# Production Test Flow Change Criteria

Production Test Flow Change Criteria has been Defined in 《Product Engineer Management Specifications》

| | | |
|---|---|---|
| **Test flow optimization (option)** | **Based on enough test coverage, finish FT hot & cold elimination evaluation(TTR)** | **Evaluation Quantity Requirement:**<br>Lead Package quantity >=50K, Other each package quantity >=25K. Total quantity>= 100K.<br>Each package samples must be picked from 3 wafer lots<br><br>**Evaluation Criteria Requirement: 0 failure on FT hot & cold**<br>If not, follow below action to do more check:<br><1> Failure on 1 wafer lot on FT hot & cold: Data analysis, sample verify and CP/FT1 test prog tighten optimization are necessary. After then, run 1 more wafer lot to check.<br><2> Failure on >1 wafer lot on FT hot & cold: Data analysis, sample verify and CP/FT1 test prog tighten optimization are necessary. After then, run another 3 wafer lots to check. |

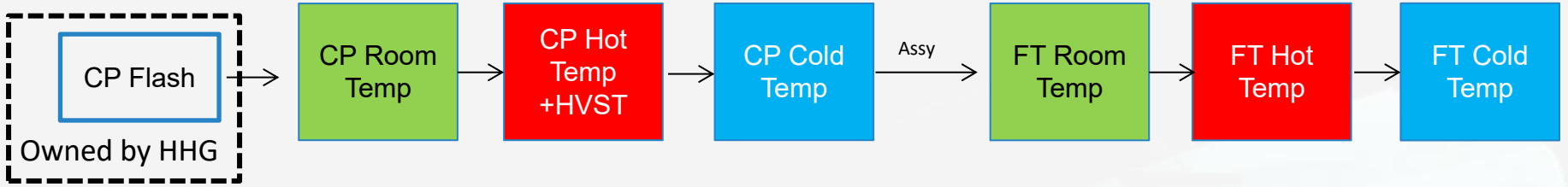



本资料为云途专有财产。未经许可，不得复制、翻印或转变成其他形式使用。

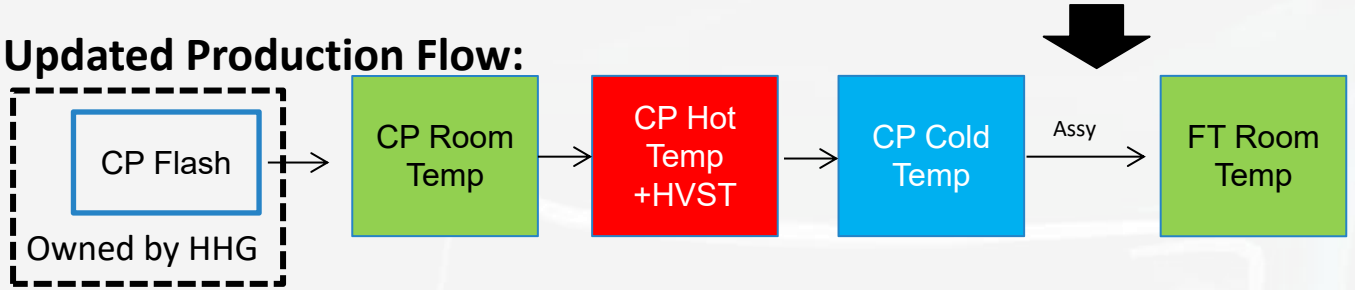
| Criteria | |
|---|---|
| **FT Hot Removal** | FT Hot removal after demonstrate 0 failure<br>➢ Sample size ≥100K data, from 3 wafer lots<br>➢ Lead package sample size: ≥50K<br>➢ Other package sample size: ≥25K |
| **FT Cold Removal** | FT Cold removal after demonstrate 0 failure<br>➢ Sample size ≥100K data, from 3 wafer lots<br>➢ Lead package sample size: ≥50K<br>➢ Other package sample size: ≥25K |

# Production Test Flow Change

**Production Flow:**




**Updated Production Flow:**




| Criteria | |
|---|---|
| **FT Hot Removal** | FT Hot removal after demonstrate 0 failure<br>➢ Sample size ≥100K data, from 3 wafer lots<br>➢ Lead package sample size: ≥50K<br>➢ Other package sample size: ≥25K |
| **FT Cold Removal** | FT Cold removal after demonstrate 0 failure<br>➢ Sample size ≥100K data, from 3 wafer lots<br>➢ Lead package sample size: ≥50K<br>➢ Other package sample size: ≥25K |

# FT Hot and Cold Test Elimination Evaluation Result

| Part# | Package | Wafer Lot# | Assy Lot# | FT Test Lot# | FT Hot Input | FT Hot Output | Genuine Reject | FT Cold Input | FT Cold Output | Genuine Reject |
|---|---|---|---|---|---|---|---|---|---|---|
| YTM32B1LE05H0MLHT<br>YTM32B1LE05H0MLHR | 64LQFP | A547601.1 | M325051162 | FT20250621076 | 7,510 | 7,510 | 0 | 7,510 | 7,510 | 0 |
| | | A547614.1 | M325052462 | FT20250621075 | 11,523 | 11,523 | 0 | 11,523 | 11,523 | 0 |
| | | A547568.1 | M325053062 | FT20250702073 | 7,862 | 7,862 | 0 | 7,862 | 7,862 | 0 |
| | | | | **Total Qty:** | **26,895** | | **Total Qty:** | **26,895** | | |

| Part# | Package | Wafer Lot# | Assy Lot# | FT Test Lot# | FT Hot Input | FT Hot Output | Genuine Reject | FT Cold Input | FT Cold Output | Genuine Reject |
|---|---|---|---|---|---|---|---|---|---|---|
| YTM32B1LE0xH0MLFT | 48LQFP | A547614.1 | M325052362 | FT20250709110 | 7,560 | 7,560 | 0 | 7,560 | 7,560 | 0 |
| | | A547568.1 | M325053162 | FT20250709111 | 11,521 | 11,521 | 0 | 11,521 | 11,521 | 0 |
| | | A547569.1 | M3256032A2 | FT20250709112 | 31,617 | 31,617 | 0 | 31,617 | 31,617 | 0 |
| | | | | FT20250709113 | 32,575 | 32,575 | 0 | 32,575 | 32,575 | 0 |
| | | | | FT20250709114 | 34,650 | 34,650 | 0 | 34,650 | 34,650 | 0 |
| | | A279783.1 | M325716142 | FT20250805063 | 7,073 | 7,073 | 0 | 7,073 | 7,073 | 0 |
| | | A279783.4 | M325925242 | FT20251022092 | 51,468 | 51,468 | 0 | 51,468 | 51,468 | 0 |
| | | | | **Total Qty:** | **176,464** | | **Total Qty:** | **176,464** | | |

| Part# | Package | Wafer Lot# | Assy Lot# | FT Test Lot# | FT Hot Input | FT Hot Output | Genuine Reject | FT Cold Input | FT Cold Output | Genuine Reject |
|---|---|---|---|---|---|---|---|---|---|---|
| YTM32B1LE0xH0MLET<br>YTM32B1LE0xH0MLER | 32LQFP | A547601.1 | M325051062 | FT20250605012 | 11,374 | 11,374 | 0 | 11,374 | 11,374 | 0 |
| | | A547604.1 | M325050962 | FT20250605010 | 38,246 | 38,246 | 0 | 38,246 | 38,246 | 0 |
| | | | | FT20250605009 | 27,854 | 27,854 | 0 | 27,854 | 27,854 | 0 |
| | | | | FT20250605011 | 31,126 | 31,126 | 0 | 31,126 | 31,126 | 0 |
| | | A547614.1 | M325052262 | FT20250621074 | 19,722 | 19,722 | 0 | 19,722 | 19,722 | 0 |
| | | | | FT20250619001 | 9,997 | 9,997 | 0 | 9,997 | 9,997 | 0 |
| | | | | FT20250624083 | 23,264 | 23,264 | 0 | 23,264 | 23,264 | 0 |
| | | | | **Total Qty:** | **161,583** | | **Total Qty:** | **161,583** | | |

| Result Criteria | Result | Conclusion |
|---|---|---|
| Total Sample Size | 364,942 samples from > 3 wafer lots | Meet Criteria |
| Lead Package - 48LQFP | 176,464 samples from 5 wafer lots | Meet Criteria |
| Other Packages | • 64LQFP: 26,895 samples from 3 wafer lots<br>• 32LQFP: 161,583 samples from 3 wafer lots | Meet Criteria |
| Result after ATE Test | 0 Failures | Meet Criteria |

# Project Conclusion

## Conclusion

From the above data, YTM32B1LE0x 64LQFP/48LQFP/32LQFP meet the criteria, Production test flow implemented CP Room+CP Hot+CP Cold-->FT Room.

The detail as below table,

| Part# | Package | Production Test Flow |
|---|---|---|
| YTM32B1LE05H0MLHT<br>YTM32B1LE05H0MLHR | 64LQFP | CP Room+CP Hot+CP Cold-->FT Room |
| YTM32B1LE0xH0MLFT | 48LQFP | CP Room+CP Hot+CP Cold-->FT Room |
| YTM32B1LE0xH0MLET<br>YTM32B1LE0xH0MLER | 32LQFP | CP Room+CP Hot+CP Cold-->FT Room |

云途 YUNTU

# THANKS

## SAFETY SECURITY HIGH-QUALITY



Contact: business@ytmicro.com

Office 808, Building A10, NO.777 Jianzhu West Road, Binhu District, Wuxi

39F, Building 3(North) , NO.211 Changjiang Road, Huqiu District, Suzhou

Office 601, Building A, NO.58 Xiangke Road, Pudong New District, Shanghai