# Release Note

2017-Dec-06

Yanchen Lu

## R16, armv7a

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Release date | Library archive name | Ver. | Note |
| 1 | 2017-Oct-20 | libtutuClear\_152\_20171020.a | 1.5.2 | First release for R16 integration |
| 2 | 2017-Nov-06 | libtutuClear\_161\_20171106.a | 1.6.1 | - Support stereo AEC  - Small-scale algorithm update  - Release DOA API |
| 3 | 2017-Nov-17 | libtutuClear\_162\_20171117.a | 1.6.2 | - Fix issue that no wakeup after 3 hours  - Speed optimization for armv7a |
| 4 | 2017-Nov-27 | libtutuClear\_163\_R16\_20171127.a | 1.6.3 | Remove Small-scale algorithm update on Ver.1.6.1 |
| 5 | 2017-Nov-29 | libtutuClear\_163\_R16\_20171129\_20b.a | 1.6.3 | Accept 32-bit PCM input; previously accept 16-bit PCM input |
| 6 | 2017-Dec-05 | libtutuClear\_163\_R16\_20171205\_W32.a | 1.6.3 | Algo update for 90 dBC AEC test |
| 7 | 2017-Dec-06 | libtutuClear\_164\_R16\_20171206.a | 1.6.4 | Support 16-bit and 32-bit input/output port simultaneously |
|  |  |  |  |  |

## R18, arm64-v8a

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Release date | Library archive name | Ver. | Note |
| 1 | 2017-Nov-18 | libtutuClear\_162\_armv8a\_20171118.a | 1.6.2 | Frist release for R18 integration |
| 2 | 2017-Nov-28 | libtutuClear\_162\_R18\_20171128.a | 1.6.3 | Sync to R16 Ver.1.6.3 |
| 3 | 2017-Nov-30 | libtutuClear\_163\_R18\_20171130\_20b.a | 1.6.3 | Accept 32-bit PCM input; previously accept 16-bit PCM input |
| 4 | 2017-Dec-06 | libtutuClear\_164\_R18\_20171206.a | 1.6.4 | Support 16-bit and 32-bit input/output port simultaneously |
| 5 | 2017-Dec-07 | libtutuClear\_165\_R18\_20171207.a | 1.6.5 | AEC performance upgrade with the penalty of additional computational complexity |
| 6 |  |  |  |  |

# Tuning guide

## TUTU\_PARAM\_SYS.uw32OpMode

|  |  |
| --- | --- |
| Bit | Mode description |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 | ASR assist |
| 5 |  |
| 6 |  |
| 7 | Multiple channel I/O data export |
| 8 |  |
| 9 |  |
| 10 | Stereo AEC |
| 11 |  |
| 12 |  |
| 13 |  |
| 14 |  |
| 15 |  |
| 16~31 | Reserved |

## TUTU\_PARAM\_SYS.uw32FuncMode

|  |  |
| --- | --- |
| Bit | Mode description |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
| 6 | Acoustic echo cancellation (AEC) |
| 7 | Array noise suppression |
| 8 |  |
| 9 |  |
| 10 | Auto gain control (AGC). Design for two-way communication |
| 11 | Dynamic range control (DRC) |
| 12 | High-pass filter (HPF) |
| 13 |  |
| 14 | Directional of arrival (DOA) |
| 15 |  |
| 16 |  |
| 17 |  |
| 18 |  |
| 19 |  |
| 20 |  |
| 21 |  |
| 22 |  |
| 23 |  |
| 24 |  |
| 25 |  |
| 26 |  |
| 27 |  |
| 28 |  |
| 29 |  |
| 30 |  |
| 31 |  |