

Inconsistent LED Flash Rate of NY3DxxxA Between NY3_FDB and NY3PxxxA OTP

Description:

The LED flash rate, either 3Hz, 6Hz or 12Hz, of NY3_FDB is not the same as that of NY3P OTP. No matter what kind of voice quality defined by Factor, the LED flash rate of NY3P OTP is always slower than NY3_FDB. However, LED flash rate of NY3_FDB corresponds to that of production chips NY3DxxxA.

Reason:

The 3/6/12 Hz LED flash rate is derived from frequency of address counter used to fetch voice data. Because voice data of NY3DxxxA is 5-bit but ROM width of NY3P OTP is 8-bit. Therefore, the boundary is not aligned while voice data is stored in NY3P OTP ROM. As consequence, the address counter will stop 3 times for every 8 data fetches. Therefore, the LED flash rate of NY3P OTP is 5/8 times slower than that of NY3_FDB.

Solution:

This inaccurate LED flash rate is resulted from architecture of NY3P OTP and can not be adjusted by any programming skill.

If customer's application required accurate LED flash rate, please use *Quick-IO* to insert control mark to turn on/off LED to meet the goal of LED flash rate.