

1. NY5A MIX Register Setting Notice

Contents: When programming NY5A series IC, initially users must set MIX to channel 2 no matter how many channel is used, i.e. set Mixer Control Register to 0xE or 0xF, then jump to main program and set actual channel number. It's to prevent the noise between DAC/PWM audio output switching. Besides, if users have to set the audio output by the AUD register, please do it before jumping to the main program.

Reason: Because the channel 0 and channel 1 of the NY5A IC are tone channels, its initial values are located at the middle value. It causes a noise when switching the DAC/PWM audio output.

```
Example: org 0x000000          ;Reset vector
         MVLA    0xE
         MVAT    MIX          ;Set MIX to channel 2 only
         MVLA    0x2
         MVAT    AUD          ;Set the audio output as PWM
         JMP     main        ;Jump to main program

main:
org 0x000800          ;Main program
.
.
.
```

2. NY5 SLOW Mode Notice

Contents: In NY5 series IC, when using the SLOW command, users must pause or stop all channels first and turn off the audio output. If using "Pause" function (stop timer), after the last command of stopping timer, users must execute 'n' instructions first before SLOW command. n=6 @1MHz; n=10 @2MHz.

Reason: Because the mixer is not shut down during the slow mode, it may cause data error if not stopping all channels.

Example: ;Assuming using 1MHz instruction and "Pause" function.

```
MVLA    0x0
CHNO                                ;Set CH# to channel 0
MVLRL   0x0, RPT0
MVLRL   0x0, RPT1
LDTM                                ;Pause the channel 0 playing
MVLA    0x1
CHNO                                ;Set CH# to channel 1
LDTM                                ;Pause the channel 1 playing
MVLA    0x2
CHNO                                ;Set CH# to channel 2
LDTM                                ;Pause the channel 2 playing
MVLA    0x3
CHNO                                ;Set CH# to channel 3
LDTM                                ;Pause the channel 3 playing
MVLA    0x4
MVAT    AUD                          ;Turn off the audio output
NOP
NOP
NOP
NOP                                ;Wait 6 instructions(including 2 command of turning off the audio
                                ;output and 4 NOPs)
SLOW                                  ;SLOW mode
```

3. NY5 INT Register Setting Notice

Contents: The MVLA instruction must be executed first before users write in the INT register.

Reason: If users don't follow this rule, the TOF (Timer Overflow) register may be cleared unexpectedly.

Example: ;Clear TOF

```
MVLA    0xC
```

```
MVAT    INT
```

```
;Clear Watch-dog-timer
```

```
MVLA    0xE
```

```
MVAT    INT
```

```
;Set the interrupt source to 0.128ms system base timer
```

```
MVLA    0x0
```

```
MVAT    INT
```