USER MANUAL
VOICE RECORDING IC
DEMO BOARD
(P/N: APR9600-4081A DB)

APLUS INTEGRATED CIRCUITS INC.

- **MESSAGE MANAGEMENT MODES :**
    1. TAPE MODE (DEFAULT) : When recording multi-voice sections, the later recording voice section will automatically skip and save behind the former voice section(TACT SW only)-No voice section limitation.
    2. TAPE – NEXT MODE: Manually skip to the next section by pressing "M2 key"("TACT SW=M1" and "M2" key)-No voice section limitation.
    3. 1-FIXED-MESSAGE: Only one voice section could be recorded.
    4. 2-FIXED MESSAGE : The length of the section is divided equally into 2 section voice messages.
    5. 4-FIXED MESSAGE : The length of the section is divided equally into 4 section voice messages.
    6. 8-FIXED MESSAGE : The length of the section is divided equally into 8 section voice messages.

    THERE ARE J1,J2 & J3 BONDING OPTIONS FOR THE MODES ABOVE.

- APR9600: Reference Sampling Rate & Rosc Value.

SAMPLE RATE	DURATIONS	Rosc
8 K Hz	32 "	24K Ohm
6.4 K Hz	40 "	38 K Ohm
4.2 K Hz	60 "	84 K Ohm

- SLIDE SW. → RECORD / PLAY MODE SELECTED
- TACT SW. = M1 KEY → RECORDING VOICE / PLAY VOICE TRIGGER
- A. **TAPE MODE : (USE SLIDE SW. + TACT SW.)**
    MESSAGE MANAGEMENT MODES : SETUP TAPE MODE
    ➢ **RECORDING VOICE MESSAGE :**
    SLIDE SW. **= REC**
    → When pressing TACT SW., you will hear a short " BEEP" then you can start recording voice section (1). When you are recording sounds, please keep your fingers in pressing position of TACT SW, the RED LED will flash on and off and it means a sound (1) is recorded into ic. When releasing TACT SW., you will hear a short "BEEP"then stop recording a voice section (1)
    →When pressing TACT SW., you will hear a short " BEEP" then you can start recording a voice section (2). When you are recording sounds, please keep your fingers in pressing position of TACT SW, the RED LED will flash on and off and it means a sound(2) is recorded into ic. When releasing TACT SW., you will hear a short "BEEP"then stop recording a voice section (2)
    → Voice section (3)~ last etc..

➢ **PLAY VOICE MESSAGE :**

SLIDE SW. = **PLAY**

→ When PRESSING—RELEASING TACT SW., the RED LED will flash on and off, at the same time sounds(1) start playback. When you want to stop sounds(1) palyback, please press then release TACT SW **again**.

→ When PRESSING—RELEASING TACT SW., the RED LED will flash on and off, at the same time sounds(2) start playback. When you want to stop sounds(2) palyback, please press then release TACT SW **again**.

→ Voice section (3)~ last etc..

B. **TAPE-NEXT : (USE SLIDE SW. + M1 + M2 KEYS)**

(Please adjust jumper"J1,J2,J3" according to TAPE-NEXT MODE application note)

MESSAGE MANAGEMENT MODES : SETUP TAPE-NEXT MODE

➢ RECORDING VOICE MESSAGE :

SLIDE SW. = **REC**

→ When pressing TACT SW=M1., you will hear a short " BEEP" then you can start recording voice section (1). When you are recording sounds, please keep your fingers in pressing position of TACT SW=M1, the RED LED will flash on and off and it means the voice section (1) is recorded into ic. When releasing TACT SW=M1., you will hear a short "BEEP"then stop recording sounds(1)

→ **If you are going to record voice section (2), firstly press-release "M2" then re-press TACT SW=M1.,** you will hear a short " BEEP" then you can start recording a voice section (2). When you are recording sounds, please keep your fingers in pressing position of TACT SW=M1, the RED LED will flash on and off and it means a voice section (2) is recorded into ic. When releasing TACT SW=M1., you will hear a short "BEEP"then stop recording a voice section(2)

→ **If you are going to record a voice section (3), firstly press-release "M2" then re-press TACT SW=M1.,** you will hear a short " BEEP" then you can start recording a voice section (3). When you are recording sounds, please keep your fingers in pressing position of TACT SW=M1, the RED LED will flash on and off and it means a voice section (3) is recorded into ic. When releasing TACT SW=M1., you will hear a short "BEEP"then stop recording a voice section(3)

→ Voice section (4)~ last etc..

➢ PLAY VOICE MESSAGE :

SLIDE SW. = **PLAY**

→ When PRESSING—RELEASING TACT SW., the RED LED will flash on and off, at the same time sounds(1) start playback.

→ **If you are going to play a voice section (2), firstly press-release "M2" then re-press-release TACT SW=M1.to make a voice section(2) playback.**

→ **If you are going to play a voice section (3), firstly press-release "M2" then re-press-release TACT SW=M1.to make a voice section(3) playback.**

→ Voice section (4)~ last etc..

C. 1-FIXED-MESSAGE : (USE SLIDE SW. + TACT SW.)
MESSAGE MANAGEMENT MODES : SETUP TAPE-NEXT MODE
(Please adjust jumper"J1,J2,J3" which is the same as TAPE-NEXT MODE)

➢ RECORDING VOICE MESSAGE :

SLIDE SW. **= REC**

→ When pressing TACT SW., you will hear a short " BEEP" then you can start recording voice section. When you are recording sounds, please keep your fingers in pressing position of TACT SW, the RED LED will flash on and off which means the sound is recorded into ic

→ When releasing TACT SW., you will hear a short "BEEP"then stop recording.

➢ PLAY VOICE MESSAGE :

SLIDE SW. **= PLAY**

→ When PRESSING—RELEASING TACT SW., the RED LED will flash on and off, at the same time sounds start playback. When you want to stop sounds palyback, please press then release TACT SW **again**.

D. 2-FIXED MESSAGE :
(USE SLIDE SW. + M1 + M2 KEYS)
(Please adjust jumper"J1,J2,J3" according to 2-FIXED MESSAGE
APPLICATION NOTE)

➢ RECORDING VOICE MESSAGE :

SLIDE SW. **= REC**

→ When pressing M1 KEY, you will hear a short"BEEP" then start recording voice section (1). When RED LED flashs on and off, it means voice section   is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (1).

→ When pressing M2 KEY, you will hear a short"BEEP" then start recording voice section (2). When RED LED flashs on and off, it means voice section   is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (2).

➢ PLAY VOICE MESSAGE :

SLIDE SW. = **PLAY**

→ When PRESSING—RELEASING M1 KEY, the RED LED will flash one and off, at the same time, voice section (1) start playback.

→ When PRESSING—RELEASING M2 KEY, the RED LED will flash one and off, at the same time, voice section (2) start playback.

E. 4-FIXED MESSAGE :

(USE SLIDE SW. + M1 + M2 + M3 + M4 KEYS)

(Please adjust jumper"J1,J2,J3" according to 4-FIXED MESSAGE APPLICATION NOTE)

➢ RECORDING VOICE MESSAGE :

SLIDE SW. = **REC**

→ When pressing M1 KEY, you will hear a short"BEEP" then start recording voice section (1). When RED LED flash on and off, it means voice section is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (1).

→ When pressing M2 KEY, you will hear a short"BEEP" then start recording voice section (2). When RED LED flashs on and off, it means voice section is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (2).

→ M3, M4 KEY etc..

➢ PLAY VOICE MESSAGE :

SLIDE SW. = **PLAY**

→ When PRESSING—RELEASING M1 KEY, the RED LED will flash one and off, at the same time, voice section (1) start playback.

→ When PRESSING—RELEASING M2 KEY, the RED LED will flash one and off, at the same time, voice section (2) start playback.

→ M3, M4 KEY etc..

F. 8-FIXED MESSAGE :

(USE SLIDE SW. +M1+M2+M3+M4++M5+M6+M7+ M8 KEYS)

(Please adjust jumper"J1,J2,J3" according to 8-FIXED MESSAGE APPLICATION NOTE)

➢ RECORDING VOICE MESSAGE :

SLIDE SW. = **REC**

→ When pressing M1 KEY, you will hear a short"BEEP" then start recording voice section (1). When RED LED flash on and off, it means voice section is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (1).
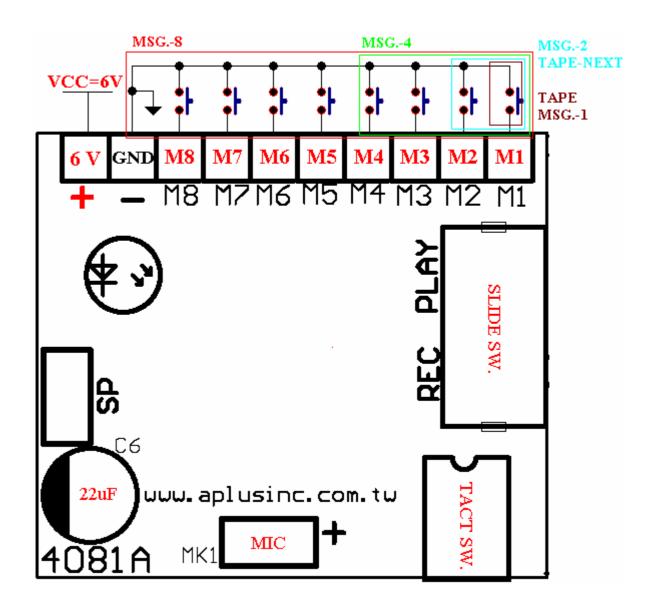
→ When pressing M2 KEY, you will hear a short"BEEP" then start recording voice section (2). When RED LED flashs on and off, it means voice section is recorded into ic. When you hear two short"BEEP,BEEP", RED LED will be off, at the same time stop recording voice section (2).

→ M3, M4, M5, M6, M7 & M8 KEY etc..

➢ PLAY VOICE MESSAGE :

SLIDE SW. = PLAY

→ When PRESSING—RELEASING M1 KEY, the RED LED will flash one and off, at the same time, voice section 1 start playback.

→ When PRESSING—RELEASING M2 KEY, the RED LED will flash one and off, at the same time, voice section 2 start playback.

→ M3, M4, M5, M6, M7 & M8 KEY etc..

TAPE   TAPE MODE APPLICATION NOTE

TAPE-NEXT   "TAPE-NEXT" & "1-FIXED MESSAGE APPLICATION NOTE

MSG. - 2   **2-FIXED MESSAGE APPLICATION NOTE**

SLIDE SW.

39K
ROSC
R6   R8   J3 1 2 0 R83
104   R6   R8   C2
C3   100K   100K   C2
C5   C4   C4   104   1K
C5   104   104   R7
J1 1 2 3 0   R2   R3 R4   R7
J2 1 2 3 0 1   R2   10K   R3   R4
C1   R1   1K   1M5   10K
C1   R1   104
T1   R5   R5   2K2

MSG. - 4   **4-FIXED MESSAGE APPLICATION NOTE**

SLIDE SW.

39K
ROSC
R6   R8   J3 1 2 0 R83
104   R6   R8   C2
C3   100K   100K   C2
C5   C4   C4   104   1K
C5   104   104   R7
J1 1 2 3 0   R2   R3 R4   R7
J2 1 2 3 0 1   R2   10K   R3   R4
C1   R1   1K   1M5   10K
C1   R1   104
T1   R5   R5   2K2

ROSC-D

MSG. - 8   **8-FIXED MESSAGE APPLICATION NOTE**