## aSPI28W

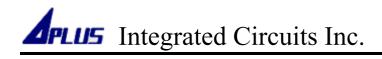
# User Guide

USB writer for aMTPxxM series

### **APLUS INTEGRATED CIRCUITS INC.**

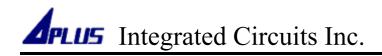
#### Address:

3 F-10, No. 32, Sec. 1, Chenggung Rd., Taipei, Taiwan 115, R.O.C. TEL: 886-2-2782-9266 FAX: 886-2-2782-9255 WEBSITE : <u>http://www.aplusinc.com.tw</u> Technology E-mail: <u>service@aplusinc.com.tw</u> Sales E-mail: <u>sales@aplusinc.com.tw</u>



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#### Install Software In Windows XP

1. Right-click on the aSPI28W zip file, and click [Extract All...].



2. Click [ Next ] .

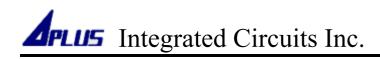


3. Click [Next].

解壁縮精靈	
選擇一個目的 ZIP保存檔中的檔	案將被解壓縮至您選擇的位置。
	選擇資料夾來解壓縮檔案。 檔案會解壓縮這個目錄①: ts and Settings\Writer\sSPI28W_V100 激覽(R) 密碼(P)
2	正在解壓縮
	<上一步(B) 下一步(D) 取消

4. Windows will start to extract files.

解壓縮精靈	×
選擇一個目的 ZIP保存檔中的檔	案將被解壓縮至您選擇的位置。
	選擇資料夾來解壓縮檔案。 檔案會解壓縮這個目錄(D): Its and Settings/Writer/aSPI28W_V100 瀏覽(R) 密碼(P)
	<上一步(B) 下一步(D) 取消



5. Select [ Show extracted files ], then click [ Finish ].

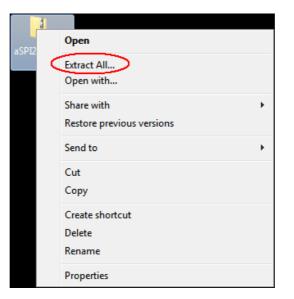


6. Windows will extract all files in the same directory with the zip file.

檔案(F) 編輯(E) 檢視(Y) 我的最愛(A) 工具(T) 說明(H)         ③ 上一頁 · ④ · ⑦       細址 □ □ D·LDocuments and Settings\Writer\aSPI28W_V100         檔案及資料夾工作       A         ⑦ 建立新的資料夾       ● SSPI28W_V100         ◎ 素及資料夾工作       ● SSPI28W_V100         簡素及資料夾工作       ● SSPI28W_V100         ◎ 素及資料夾工作       ● SSPI28W_V100         ◎ 素方面的資料夾       ● Doc         ◎ 方向に       檔案資料夾         ◎ Doc       檔案資料夾         ● Doilor       檔案資料夾         ● Dols       檔案資料夾         ● Tools       総案資料夾         ● SSPI28W.exe       885 KB 應用程式	😂 aSP128 ₩_¥100		
檔案及資料夾工作     名稱     大小     類型       / 違立新的資料夾     ● aSP128 W_V100     檔案資料夾       ※ 將這個資料夾發佈到網站     ● Doc     檔案資料夾       ● Tools     檔案資料夾	檔案(F) 編輯(E) 檢視(V) 我的最愛	(A) 工具(I) 說明(H)	
檔案及資料夾工作 <th>③上─頁 - ⑤ - 秒 🛄- 綿</th> <th>引北 ① ( D \Documents and Settings)</th> <th>Writer%SPI28W_V100</th>	③上─頁 - ⑤ - 秒 🛄- 綿	引北 ① ( D \Documents and Settings)	Writer%SPI28W_V100
📝 setup.ini 1 KB Notepad	<ul> <li>建立新的資料夾</li> <li>將這個資料夾發佈到網站</li> </ul>	Contemporary Conte	檔案資料夾 檔案資料夾 檔案資料夾 檔案資料夾

#### ■ Install Software In Windows 7

1. Right-click on the aSPI28W zip file, and click [Extract All...].



2. Select [ Show extracted files when complete ], then Click [ Extract ].

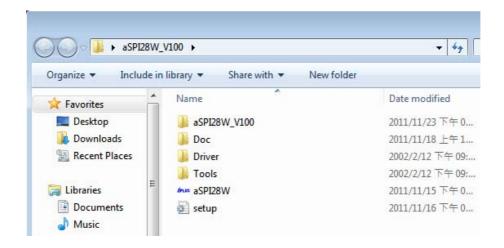
🕞 🚹 Extract Compressed (Zipped) Folders	<b></b>
Select a Destination and Extract Files	
Files will be extracted to this folder:	
C:\Users\APLUS\Desktop\aSPI28W_V100	Browse
Show extracted files when complete	
	$\frown$
	Extract Cancel



3. Windows will start to extract files.

	acted to this folder:	
C:\Users\APL	Copying 17 items (6.57 MB)	VSE
Show extra	Copying 17 items (6.57 MB)	
	from <b>aSPI28W_V</b> \aSPI28W_V1 to <b>aSPI28W_V</b> \aSPI28W_ Discovered 17 items (6.57 MB)	VI
	More details Cancel	

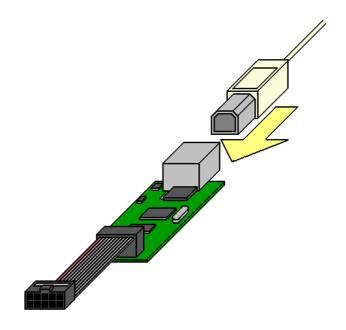
4. Windows will extract all files in the same directory with the zip file.



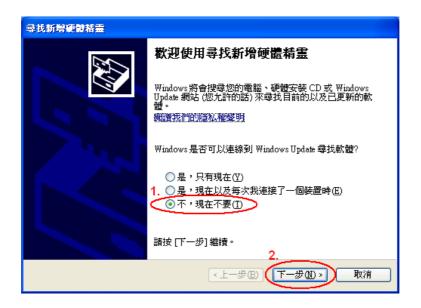


#### Install Driver In Windows XP

1. Connect aSPI28W to your computer by USB cable.



2. When first time connect aSPI28W to the computer, windows will show "Found New Hardware Wizard" windows, select [ No, not this time ], then click [ Next ].

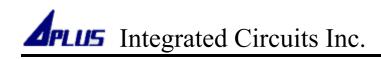


3. Select [ Install from a list or specific location (Advanced) ], then click [ Next ].



4. Select or click and follow below graph to assign the driver.

尋找新增硬體精靈	瀏覽資料夾 ? 🔀
請選擇您的搜尋和安裝選項。	▶選擇包含您的硬體的資料夾。
<ol> <li> <ol> <li> <ul> <li></li></ul></li></ol></li></ol>	<ul> <li>● 点面</li> <li>● 我的文件</li> <li>● 我的電腦</li> <li>● OS_Vista (C:)</li> <li>● OS_XP (D:)</li> <li>● Data (E:)</li> <li>● Data (E:)</li> <li>● aSP128W_V100 </li> <li>4 ● Dec</li> <li>● Driver</li> <li>● Teels</li> </ul>
6.	<b>要瀏覽任何子資料</b> 夾,請按上述+號。
<上一步图 下一步图 > 取消	5. 確定 取消

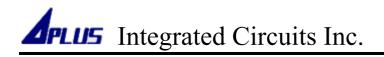


5. Windows will copy the driver to your PC and start to install.



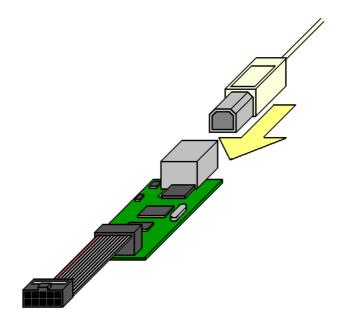
6. Click [Finish] to end of install driver.



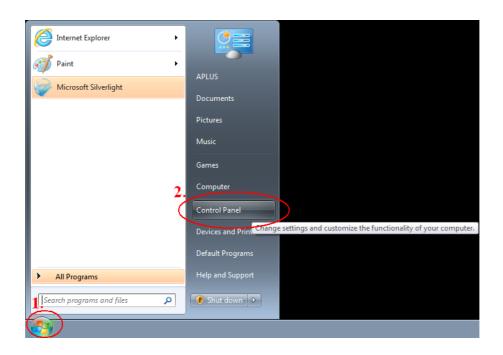


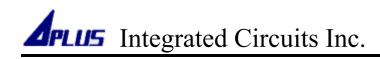
#### Install Driver In Windows 7

1. Connect aSPI28W to your computer by USB cable.

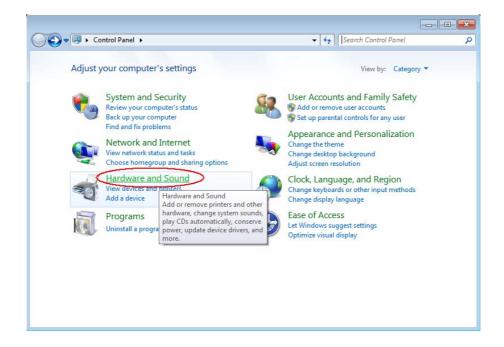


2. Click and follow below graph to open [ Control Panel ] .

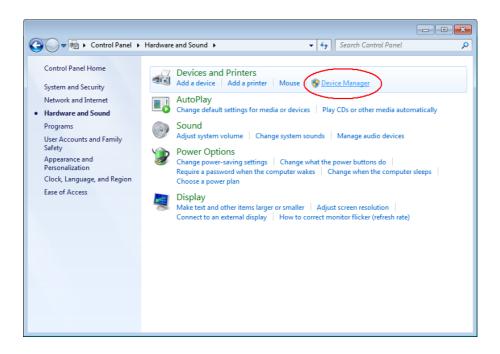


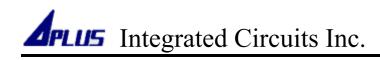


3. Click and follow below graph to open [ Hardware and Sound ] .

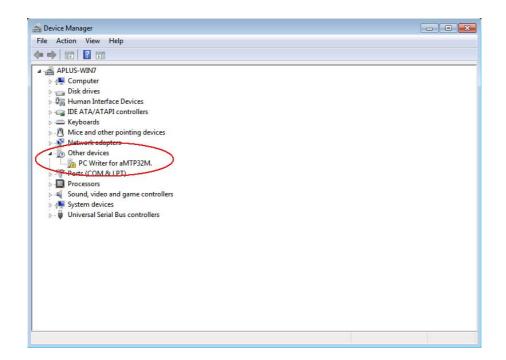


4. Click and follow below graph to open [ Device Manager ] .





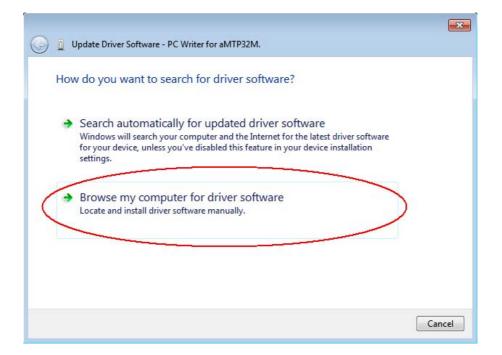
5. You can find aMTP32M in the list.



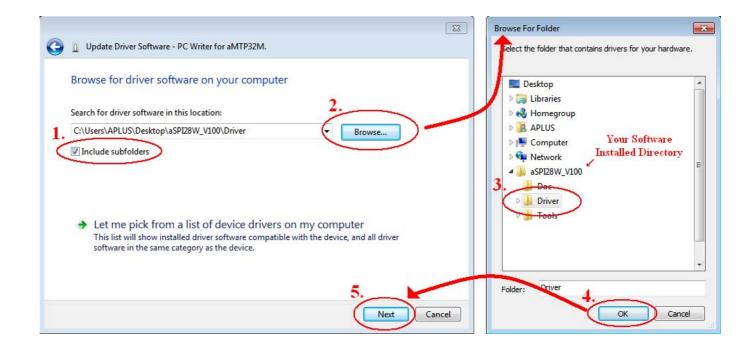
6. Right-click aMTP32M icon, and click [ Update Device Software... ].

🚔 Device Manager										
File Action View Help										
	R 🕅 🙀 🕫									
APLUS-WIN7										
D I Computer										
Disk drives										
Human Interface Device										
IDE ATA/ATAPI control	ollers									
Keyboards	> - Keyboards									
Mice and other pointing	ng devices									
Network adapters										
Other devices										
PC Writer for a	Update Driver Software									
Ports (COM & LRT)										
Processors	Disable									
Sound, video and g	Uninstall									
<ul> <li>Image: System devices</li> <li>Image: Universal Serial Bus</li> </ul>	Scan for hardware changes									
	Properties									
Launches the Update Driver Softwa	are Wizard for the selected device.									

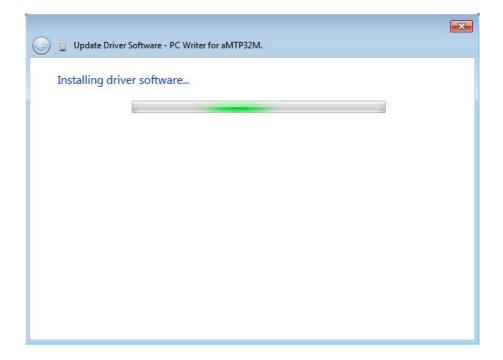
7. Click and follow below graph to install driver manually.



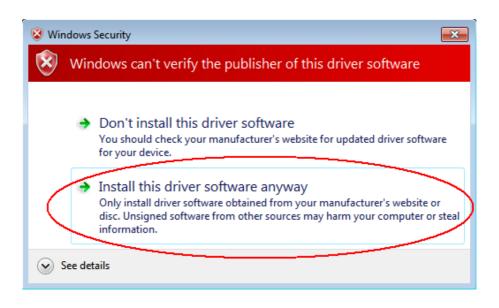
8. Select or click and follow below graph to assign the driver.

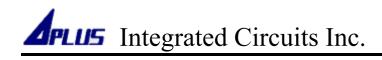


9. Windows will start to install driver to your PC.

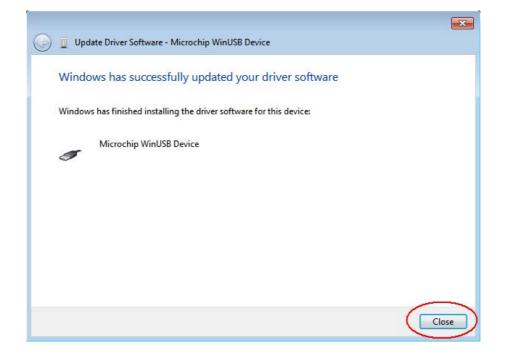


10. When the driver install, if windows show the below message, please click [ Install this driver software anyway ].





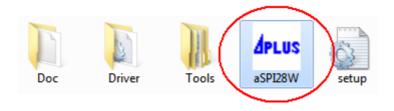
11.Click [ Close ] to end of install driver.





### **Build A Program Data**

1. Double click aSPI28W icon to open software.



2. Click [Tools]  $\rightarrow$  [Editor] to open "aMTP Series Sound editor".

aSPI28W USB writer	
Option Tools About	
Write Editor	Writer Connect
Erase	
Write	
Verify	100%

3. Click [ Device ] to select the device you want.

File Device Mode Vo		ut						×
aMTP16M	~			Section No.	Edge	Holdable	Retrigger	-
■ aMTP32M	h			Section 0	Level	UnHoldable	Retrigger	-0
aMTP64M				Section 1	Level	UnHoldable	Retrigger	
aMTP128M				Section 2	Level	UnHoldable	Retrigger	
diviTP120ivi				Section 3	Level	UnHoldable	Retrigger	
🗁 aSPI28W_V110				Section 4	Level	UnHoldable	Retrigger	
Doc				Section 5	Level	UnHoldable	Retrigger	
Driver				Section 6	Level	UnHoldable	Retrigger	
🛅 Tools				Section 7	Level	UnHoldable	Retrigger	
				Section 8	Level	UnHoldable	Retrigger	
				Section 9	Level	UnHoldable	Retrigger	
				Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	
				File Name		Rate	Busy	
aMTP32M Key T	rigger	PWM	Usage: 66608	3 / 4194304 (1%)				

4. Click [ Mode ] to select the mode you want.

aMTPxxM Sound Editor File Device Mode Vout	t Build Abou	ıt						×
🖃 c: [] 🛛 🔍 Key Tri	gger			Section No.	Edge	Holdable	Retrigger	•
C:\ Sequen	ntial			Section 0	Level	UnHoldable	Retrigger	
🗁 Users CPU Pa	arallel			Section 1	Level	UnHoldable	Retrigger	
				Section 2	Level	UnHoldable	Retrigger	
Desitop CPU Se	erial			Section 3	Level	UnHoldable	Retrigger	
ASPI2 MP3				Section 4	Level	UnHoldable	Retrigger	
Doc				Section 5	Level	UnHoldable	Retrigger	
Driver				Section 6	Level	UnHoldable	Retrigger	
Cols 🛅				Section 7	Level	UnHoldable	Retrigger	
				Section 8	Level	UnHoldable	Retrigger	
				Section 9	Level	UnHoldable	Retrigger	
				Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	Ŧ
				File Name		Rate	Busy	
aMTP32M Key Trig	gger P	WM	Usage: 66608	/ 4194304 (1%)				

• More detailed description of "Mode", please refer to aMTP32M data sheet.



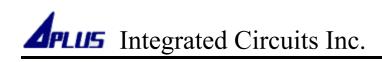
5. Click [ Vout ] to select the voice mode you want.

<sup>aus</sup> aMTPxxM Sou File Device M		id Abou	ł							X
■ c: []	PWN				s	ection No.	Edge	Holdable	Retrigger	
🗁 C:\	DAC		V		S	ection 0	Level	UnHoldable	Retrigger	
B Users		4			S	ection 1	Level	UnHoldable	Retrigger	
APLUS					S	ection 2	Level	UnHoldable	Retrigger	
🗁 Desktop					S	ection 3	Level	UnHoldable	Retrigger	
👝 aSPI28W_V	V110				S	ection 4	Level	UnHoldable	Retrigger	
Doc 📄					S	ection 5	Level	UnHoldable	Retrigger	
Driver					S	ection 6	Level	UnHoldable	Retrigger	
n Tools					S	ection 7	Level	UnHoldable	Retrigger	
					S	ection 8	Level	UnHoldable	Retrigger	
					S	ection 9	Level	UnHoldable	Retrigger	
					S	ection 10	Level	UnHoldable	Retrigger	
					S	ection 11	Level	UnHoldable	Retrigger	
File Name	B	Rate	Size	%	S	ection 12	Level	UnHoldable	Retrigger	
						ile Name		Rate	Busy	
MTP32M	Key Trigger	P	WM	Usage: 6660	8 / 419	94304 (1%)				

- PWM can directly drive speaker to save cost, but volume is smaller than DAC
- DAC need external amplifier to driver speaker. The volume depends on the amplifier and louder than PWM.
- More detailed description of DAC or PWM, please refer to aMTP32M data sheet.

6. Use Block-1 to select a directory, and Block-2 will list all of wave file in this directory.

		10K.wav		Section No.	Edge	Holdable	Petrioger	T
					-			
		18k.wav						
						UnHoldable		
	`	ψhiwav		Section 7	Level	UnHoldable		
_				Section 8	Level	UnHoldable		
•k-1		Bloc	k-2	Section 9	Level	UnHoldable		
		Dioc	<b>Χ Ζ</b>	Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	
				File Name		Rate	Busy	
				_				
				_				
				_				
				_				
				-				
				_				
	ck-1		12K.wav 14K.wav 16K.wav 18k.wav 20K.wav 8K.wav tp1.wav tp2.wav tp3.wav tp4.wav Bloc	12K.wav 14K.wav 16K.wav 16K.wav 20K.wav 20K.wav tp1.wav tp1.wav tp2.wav tp3.wav tp4.wav Block-2	tk-1 12K.wav 14K.wav 14K.wav 14K.wav 16K.wav 18k.wav 20K.wav	12K.wav     12K.wav       14K.wav     16K.wav       16K.wav     18k.wav       18k.wav     20K.wav       20K.wav     Section 1       20K.wav     Section 2       20K.wav     Section 3       19.wav     Section 4       19.wav     Section 5       19.wav     Section 6       19.wav     Section 7       19.wav     Section 9       19.wav     Section 1       10.wav     Section 1       11.wav     Section 1       12.wav     Section 1       13.wav     Section 1       14.wav     Section 1       15.wav     Section 1       16.wav     Section 1       17.wav     Section 1       18.wav     Section 1       19.wav     Section 1       19.wav     Section 1       10.wav     Section 1	12K.wav     12K.wav       14K.wav     16K.wav       16K.wav     16K.wav       18k.wav     20K.wav       20K.wav     20K.wav       gK.wav     20K.wav       tp1.wav     10Holdable       Section 1     Level       UnHoldable       Section 2     Level       UnHoldable       Section 3     Level       UnHoldable       Section 4     Level       UnHoldable       Section 5     Level       UnHoldable       Section 6     Level       UnHoldable       Section 7     Level       UnHoldable       Section 8     Level       UnHoldable       Section 9     Level       UnHoldable       Section 10     Level       UnHoldable       Section 11     Level       UnHoldable       Section 10     Level       UnHoldable       Section 11     Level       UnHoldable       Section 12     UnHoldable	12K.wav     12K.wav       14K.wav     16K.wav       13k.wav     16K.wav       13k.wav     20K.wav       20K.wav     20K.wav       8K.wav     20K.wav       92.wav     20K.wav       93.wav     10Holdable       193.wav     10Holdable       194.wav     10Holdable       195.wav     10Holdable       195.wav



7. Double click file name in Block-2 to assign file into Block-3. Only Block-3 files will occupy memory space.

File Device Mode	Vout Build	About					
🖃 c: []	-	10K.wav		Section No.	Edge	Holdable	Retrigger
🔁 C:\		12K.wav 14K.wav		Section 0	Level	UnHoldable	Retrigger
🗁 Users		16K.wav		Section 1	Level	UnHoldable	Retrigger
APLUS		18k.wav 20K.wav		Section 2	Level	UnHoldable	Retrigger
🗁 Desktop		20K.wav 8K.wav		Section 3	Level	UnHoldable	Retrigger
🗁 wave		tp1.wav		Section 4	Level	UnHoldable	Retrigger
		tp2.wav		Section 5	Level	UnHoldable	Retrigger
		tp3.wav tp4.wav		Section 6	Level	UnHoldable	Retrigger
				Section 7	Level	UnHoldable	Retrigger
				Section 8	Level	UnHoldable	Retrigger
		Block	(-2	Section 9	Level	UnHoldable	Retrigger
		Dioci	` <b>-</b>	Section 10	Level	UnHoldable	Retrigger
	(			Section 11	Level	UnHoldable	Retrigger
File Name	Rate	s Size	%	Section 12	Level	UnHoldable	Retrigger
8K.wav	8000	) 73878	1.8%	File Name		Rate	Busy
10K.wav	1000	0 81268	1.9%				,
12K.wav	1200	0 57760	1.4%				
14K.wav	1400	0 279414	6.7%				
16K.wav	1600	0 1512866	36.1%				
18k.wav	1800	0 484079	11.5%				
20K.wav	2000	0 675901	16.1%				
tp1.wav	1204	8 41587	1.0%				
tp2.wav	1204		0.3%				
tp3.wav	1204		0.2%				
tp4.wav	1204	8 15639	0.4%				
	Bloc	/ 2					
	BIOCI	<b>C-D</b>					

The wave file must be 8-bit, mono format, and less then 20KHz sampling rate.

8. You can right-click a file name in Blick-3 and click [ Remove ] to remove it.

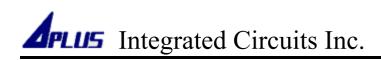
File Device Mode Vo	ut Build A	About						
🖃 c: []		)K.wav		Section No.	Edge	Holdable	Retrigger	T
🗁 C:\		2K.wav 4K.wav		Section 0	Level	UnHoldable	Retrigger	
🗁 Users	16	5K.wav		Section 1	Level	UnHoldable	Retrigger	
B APLUS		3k.wav )K.wav		Section 2	Level	UnHoldable	Retrigger	
🗁 Desktop		K.wav		Section 3	Level	UnHoldable	Retrigger	
📂 wave	tρ	1.wav		Section 4	Level	UnHoldable	Retrigger	
		2.wav 3.wav		Section 5	Level	UnHoldable	Retrigger	
		4.wav		Section 6	Level	UnHoldable	Retrigger	
				Section 7	Level	UnHoldable	Retrigger	
				Section 8	Level	UnHoldable	Retrigger	
				Section 9	Level	UnHoldable	Retrigger	
				Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	
8K.wav	0000	3878	1.8%	File Name		Rate	Busy	Т
10K.wav	Remove	1268	1.9%	- ne mane			cus,	
12K.wav	12000	57760	1.4%					
14K.wav	14000	279414	6.7%					
16K.wav	16000	1512866	36.1%					
18k.wav	18000	484079	11.5%					
20K.wav	20000	675901	16.1%					
tp1.wav	12048	41587	1.0%					
tp2.wav	12048	12290	0.3%					
tp3.wav	12048	10235	0.2%					
tp4.wav	12048	15639	0.4%					
		2						
	Block-	- <b>S</b>						

9. Selected a section in Block-4 and assign waves by double click file name in Block-3, Block-5 will show Bock-3 assigned files played in Block-4 sections.

ile Device Mode	Vout Build	About							
≡ c: []	•	10K.way			Section No.	Edge	Holdable	Retrigger	
→ C:\		12K.wa\ 14K.wa\			Section 0	Level	UnHoldable	Retrigger	
🗁 Users		16K.wav			Section 1	Level	UnHoldable	Retrigger	
APLUS		18k.way			Section 2	Level	UnHoldable	Retrigger	
🗁 Desktop		20K.wa\ 8K.way	/		Section 3	Level	UnHoldable	Retrigger	
📂 wave		tp1.wav	1		Section 4	Level	UnHoldable	Retrigger	
		tp2.wav			Section 5	Level	UnHoldable	Retrigger	
		tp3.wav			Section 6	Level	UnHoldable	Retrigger	
					Section 7	Level	UnHoldable	Retrigger	
					Section 8	Level	UnHoldable	Retrigger	
					Section 9	Level	UnHoldable	Retrigger	
					Section 10	Lev	UnHoldable	Retrigger	
					Section 11	Lever	UnHoldable UnHoldable	Retrigger	
File Name	Rat	te	Size	%	Section 12	Level	UnHoldable	Retrigger	
8K.wav	800	00	73878	1.8%	File Name		Rate	Busy	
10K.wav	100	00	81268	1.9%					
12K.wav	1200	00	57760	1.4%	10K.wav		10000	0	
14K.wav	140	00	279414	6.7%	12K.wav		12000	0	
16K.wav	1600	00	1512866	36.1%	14K.wav		14000	0	
18k.wav	180	00	484079	11.5%	tp3.wav		12048	0	
20K.wav	2000	00	675901	16.1%					
tp1.wav	120-	48	41587	1.0%					
tp2.wav	120-	48	12290	0.3%					
tp3.wav	1204	48	10235	0.2%					
	120-	48	15639	0.4%					
tp4.wav									
tp4.wav						Pla	ck-5		
tp4.wav	Dlas					DIC	<u>n K - 1</u>		
tp4.wav	Bloc	:k-3							

 In this example, when you trigger Section 1, the chip will play : 10K.wav + 12K.wav + 14K.wav + tp3.wav 10. You can right-click or double click a file name in Block-5 and click button to remove, change sequence or choose the Busy pin output when played.

aMTPxxM Sound Ec ile Device Mode		pout						
≡ c: []		(.wav (.wav		Section No.	Edge	Holdable	Retrigger	
<u>→</u> C:\		(.wav		Section 0	Level	UnHoldable	Retrigger	
🗁 Users		C.wav		Section 1	Level	UnHoldable	Retrigger	
🗁 APLUS		.wav (.wav		Section 2	Level	UnHoldable	Retrigger	
🗁 Desktop		wav		Section 3	Level	UnHoldable	Retrigger	
🗁 wave		.wav		Section 4	Level	UnHoldable	Retrigger	
		.wav .wav		Section 5	Level	UnHoldable	Retrigger	
		wav		Section 6	Level	UnHoldable	Retrigger	
				Section 7	Level	UnHoldable	Retrigger	
				Section 8	Level	UnHoldable	Retrigger	
				Section 9	Level	UnHoldable	Retrigger	
				Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	
8K.wav	8000	73878	1.8%	File Name		Rate	Busy	T
10K.wav	10000	81268	1.9%					
12K.wav	12000	57760	1.4%	10K.way		10000	0	
14K.wav	14000	279414	6.7%	12K Rem	ove	12000	0	
16K.wav	16000	1512866	36.1%	17.		14000	0	
	18000	484079	11.5%	to3.\Up		12046	0	
18k.wav	20000	675901	16.1%	Dow	n	]		
		41587	1.0%	Busy	1	/		
20K.wav	12048	41207	1.0 /0					
20K.wav tp1.wav		12290	0.3%		/			
18k.wav 20K.wav tp1.wav tp2.wav tp3.wav	12048							
20K.wav p1.wav p2.wav p3.wav	12048 12048	12290	0.3%					
20K.wav p1.wav p2.wav p3.wav	12048 12048 12048	12290 10235	0.3%					
20K.wav tp1.wav tp2.wav tp3.wav	12048 12048 12048	12290 10235	0.3%					
20K.wav tp1.wav tp2.wav	12048 12048 12048	12290 10235	0.3%		Bloc	:k-5		
20K.wav tp1.wav tp2.wav tp3.wav	12048 12048 12048	12290 10235	0.3%		Bloc	:k-5		



11. You can right-click or double click a section in Block-4 and click button to choose edge, holdable and re-trigger function .

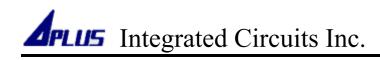
aMTPxxM Sound ile Device Mod		About								2
										_
≡ c: []	•	10K.wav			Section No.		Edge	Holdable	Retrigger	
<mark>}</mark> C:\		14K.wav	/		Section 0	1	Level	UnHoldsble	Retrigger	
🗁 Users		16K.wav 18k.wav			Section 1		Edge		Retrigger	
APLUS		20K.wav			Section 2		-		Retrigger	
🗁 Desktop		8K.wav			Section 3	•	Level		Retrigger	
📂 wave		tp1.wav tp2.wav			Section 4		Holdable		Retrigger	
		tp3.wav			Section 5				Retrigger	
		tp4.wav			Section 6	•	UnHoldable	2	Retrigger	
					Section 7		ReTrigger		Retrigger	
					Section 8	•			Retrigger	
					Section 9		Non-Retrig	-	Retrigger	
					Section 10		Level	UnHoldable	Retrigger	
					Section 11	B	d∕čk-4	UnHoldable UnHoldable	Retrigger	
File Name	Rat	te	Size	%	Section 12	_	Level	UnHoldable	Retrigger	
8K.wav	800	00	73878	1.8%	File Name			Rate	Busy	
10K.wav	100	00	81268	1.9%	10K.way			10000	0	
12K.wav	120	00	57760	1.4%	12K.wav			12000	ŏ	
14K.wav	140	00	279414	6.7%	14K.wav			14000	ŏ	
16K.wav	160	00	1512866	36.1%	tp3.wav			12048	ő	
18k.wav	180	00	484079	11.5%	φonut			12010		
20K.wav	200	00	675901	16.1%						
tp1.wav	120		41587	1.0%						
tp2.wav	120		12290	0.3%						
tp3.wav	120		10235	0.2%						
tp4.wav	120	48	15639	0.4%						

 More detailed description of "Edge", "Holdable" and "Re-Trigger", please refer to aMTP32M data sheet.



12. You can also click top entry [ Edge ], [ Holdable ] or [ Retrigger ] in Blick-4 to choose a trigger function for all sections.

aMTPxxM Sound Eo ile Device Mode		About						_ 0	2
									_
■ c: []	•	10K.wav 12K.wav			Section No.	Edga		Dotriggor	
<u>→</u> C:\		14K.wav			Section 0	evi	Set All Section To	Edge	
🗁 Users		16K.wav			Section 1	Love	Set All Section To	Level	
🗁 APLUS		18k.wav 20K.wav			Section 2	Level	UnHoldable	Retrigger	-
🗁 Desktop		8K.wav			Section 3	Level	UnHoldable	Retrigger	
📂 wave		tp1.wav			Section 4	Level	UnHoldable	Retrigger	
		tp2.wav tp3.wav			Section 5	Level	UnHoldable	Retrigger	
		tp4.wav			Section 6	Level	UnHoldable	Retrigger	
					Section 7	Level	UnHoldable	Retrigger	
					Section 8	Level	UnHoldable	Retrigger	
					Section 9	Level	UnHoldable	Retrigger	
					Section 10	Level	UnHoldable	Retrigger	
					Section 11	Block	- 4UnHoldable	Retrigger	
File Name	Rat	e	Size	%	Section 12	Level	UnHoldable	Retrigger	
8K.wav	800	0	73878	1.8%	File Name		Rate	Busy	T
10K.wav	1000	00	81268	1.9%	10K.way		10000	0	
12K.wav	1200	00	57760	1.4%	12K.wav		12000	0	
14K.wav	1400	00	279414	6.7%	14K.wav		14000	0	
16K.wav	1600	00	1512866	36.1%			14000	0	
18k.wav	1800	00	484079	11.5%	tp3.wav		12048	0	
20K.wav	2000	00	675901	16.1%					
tp1.wav	1204	48	41587	1.0%					
tp2.wav	1204	48	12290	0.3%					
tp3.wav	1204	48	10235	0.2%					
tp4.wav	1204	48	15639	0.4%					



13.You can use [File] → [Save] / [Load] to save current editing or load previous editing..

aMTPxxM Sound Ec	litor								×
File Device Mode	Vout Build A	About							
Save		)K.wav			Section No.	Edge	Holdable	Retrigger	
Load 🗾		2K.wav ¶K.wav			Section 0	Level	UnHoldable	Retrigger	
Users	16	5K.wav			Section 1	Level	UnHoldable	Retrigger	
APLUS		3k.wav )K.wav			Section 2	Level	UnHoldable	Retrigger	
🗁 Desktop		(.wav			Section 3	Level	UnHoldable	Retrigger	
👝 wave		1.wav			Section 4	Level	UnHoldable	Retrigger	
		2.wav 3.wav			Section 5	Level	UnHoldable	Retrigger	
		4.wav			Section 6	Level	UnHoldable	Retrigger	
					Section 7	Level	UnHoldable	Retrigger	
					Section 8	Level	UnHoldable	Retrigger	
					Section 9	Level	UnHoldable	Retrigger	
					Section 10	Level	UnHoldable	Retrigger	
					Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%		Section 12	Level	UnHoldable	Retrigger	
8K.wav	8000	73878	1.8%		File Name		Rate	Busy	
10K.wav	10000	81268	1.9%		10K.way		10000	0	
12K.wav	12000	57760	1.4%		12K.wav		12000	0	
14K.wav	14000	279414	6.7%		14K.wav		14000	ŏ	
16K.wav	16000	1512866	36.1%		tp3.wav		12048	ő	
18k.wav	18000	484079	11.5%		(poind)		12010	Ŭ	
20K.wav	20000	675901	16.1%						
tp1.wav	12048	41587	1.0%						
tp2.wav	12048	12290	0.3%						
tp3.wav	12048	10235	0.2%						
tp4.wav	12048	15639	0.4%						
MTP32M Ke	ey Trigger	PWM	Usage: 33115	525 /	4194304 (78%)				

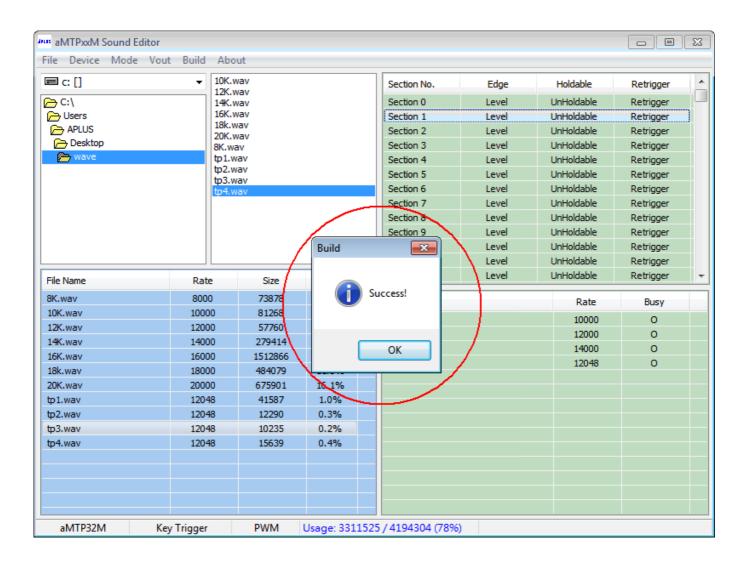
14. When you finish edit, use [ Build ] to build a program file.

aMTPxxM Sound Edite a Device Mode		out						2
								_
≡ c: []		wav wav		Section No.	Edge	Holdable	Retrigger	
<mark>∕→</mark> C:\		wav		Section 0	Level	UnHoldable	Retrigger	
🗁 Users		wav		Section 1	Level	UnHoldable	Retrigger	
🗁 APLUS		wav .wav		Section 2	Level	UnHoldable	Retrigger	
🗁 Desktop	8K.1			Section 3	Level	UnHoldable	Retrigger	
🗁 wave		wav		Section 4	Level	UnHoldable	Retrigger	
	tp2.			Section 5	Level	UnHoldable	Retrigger	
	tp4.			Section 6	Level	UnHoldable	Retrigger	
				Section 7	Level	UnHoldable	Retrigger	
				Section 8	Level	UnHoldable	Retrigger	
				Section 9	Level	UnHoldable	Retrigger	
				Section 10	Level	UnHoldable	Retrigger	
				Section 11	Level	UnHoldable	Retrigger	
File Name	Rate	Size	%	Section 12	Level	UnHoldable	Retrigger	
8K.wav	8000	73878	1.8%	File Name		Rate	Busy	Т
10K.wav	10000	81268	1.9%	10K.way		10000	0	
12K.wav	12000	57760	1.4%	12K.way		12000	0	
14K.wav	14000	279414	6.7%	14K.wav		14000	0	
16K.wav	16000	1512866	36.1%	tp3.wav		12048	0	
18k.wav	18000	484079	11.5%	ψo.wav		12046	- U	
20K.wav	20000	675901	16.1%					
tp1.wav	12048	41587	1.0%					
tp2.wav	12048	12290	0.3%					
tp3.wav	12048	10235	0.2%					
tp4.wav	12048	15639	0.4%					

15.Select a directory, and give it a name to save it.

aMTPxxM Sound Editor File Device Mode Vout Build About				23
	×	Idable	Retrigger	-
		oldable	Retrigger	
Search Desktop	٩	oldable	Retrigger	
Organize 🔻 New folder	2	oldable	Retrigger	
	0	oldable	Retrigger	
Name Size Item type Date modif	fie 🔺	oldable	Retrigger	
× Favorites		oldable	Retrigger	
E Desktop 🧧 Cibraries		oldable	Retrigger	
🐌 Downloads 🗮 🚜 Homegroup		oldable	Retrigger	
🖳 Recent Places 🛛 🙀 APLUS	=	oldable	Retrigger	
Computer	_	oldable	Retrigger	
		oldable	Retrigger	
Carlies Carlies		oldable	Retrigger	
Documents		oldable	Retrigger	-
J Music				
Not the second s		Rate	Busy	
Videos		10000	0	_
		12000	0	
	Ŧ	14000	0	
Nomegroup 2 III		12048	0	
File name: Sample	•			
Save as type: aMTPxxM Log File (*.log)	-			
Save as type: law Pxxivi Log File ( .log)				
	_			
Hide Folders     Cancel     Cancel				
		-		
aMTP32M Key Trigger PWM Usage: 3311525 / 4194304 (78%)				

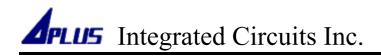
16. Wait few seconds, software will show build result.





17. You will get a program data (\*.data), and function table (\*.log) as below :

Sample.log Sample.data

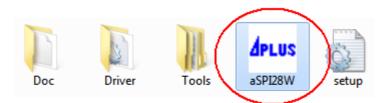


#### Program Data To aMTPxxM (DBMFL-STD2)

1. Connect aSPI28W USB writer to the demo board DBMFL-STD2.



2. Double click aSPI28W icon to open software.



3. Check writer already connected.

aSPI28W USB writer	
Option Tools About	
Writer	Writer Connect
Erase	
Write Verify	100%

4. Click [ ... ] to load a aMTPxxM program file (\*.data).

aSPI28W USB writer	r			
Option Tools Abo	ut			
Writer			Writer Co	nnect
Erase Write Verify				100%
aus Open				<b>—</b>
🔾 🗢 💻 Desktop 🕨		<b>- - ∮</b>	Search Desktop	٩
Organize 🔻 New fold	der			
<ul> <li>★ Favorites</li> <li>▲ Desktop</li> <li>▲ Downloads</li> <li>▲ Recent Places</li> <li>■ Libraries</li> <li>▲ Documents</li> <li>▲ Music</li> <li>▲ Pictures</li> <li>▲ Videos</li> </ul>	Name Cibraries Cibraries Computer Computer Network Cample.data		Item type DATA File	Date modified 2011/12/5 上午 :
Image: Weight of the second secon	∢ name: Sample.data	m •	D <del>ata Memory F</del> ile (*.c	lata) ▼ Cancel

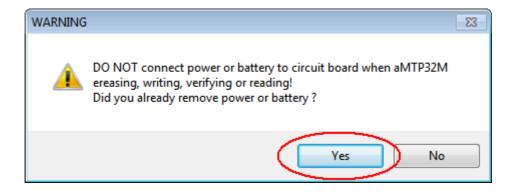
5. Software will get programmed file check sum , then show on the file path left.

aSPI28W USB writer	- • •
Option Tools About	
Writer	Writer Connect
Erase	
Write Getting Check Sum	
Verify	31%
aSPI28W USB writer	
Option Tools About	
	Writer Connect
Option Tools About	
Option Tools About Writer	Writer Connect

6. Click [ Write ] to program the file to aMTPxxM chip.

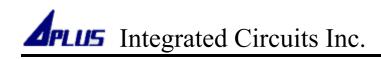
aSPI28W USB writer	- • ×
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Load Completed!	
Verify	100%

7. Check power or battery already removed, then click [Yes].



8. Software will start to erase, program and verify automatically.

aSPI28W USB writer	- • •
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Erasing	
Verify	34%



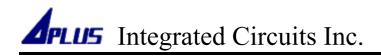
9. When write successfully, software will show "Verify completed".

aSPI28W USB writer	- • •
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Verify completed!	
Verify	100%

10. You can do erase or verify only by [ Erase ] or [ Verify ] .

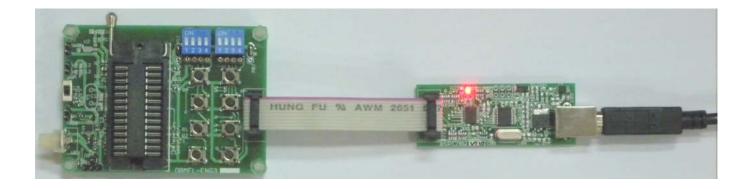
aSPI28W USB writer	- • 💌
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Verify completed!	
Verify	100%

11.Now, you can remove aSPI28W USB writer , connecting power and speaker to play . About how to use DBMFL-STD2, please refer [ DBMFL-STD2 user guide] .

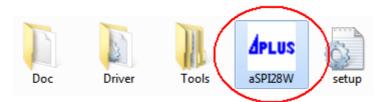


## Program Data To aMTPxxM (DBMFL-ENG2)

1. Connect aSPI28W USB writer to the demo board DBMFL-ENG2.



2. Double click aSPI28W icon to open software.



3. Check writer already connected.

aSPI28W USB writer	
Option Tools About	
Writer	Writer Connect
Erase	
Write	
Verify	100%

4. Click [ ... ] to load a aMTPxxM program file (\*.data).

aSPI28W USB writer			l	
Option Tools Abou	t			
Writer			Wri	ter Connect
Erase Write Verify				
Jus Open				×
🚱 🗢 💻 Desktop 🕨		<b>- - 4</b> <del>9</del>	Search Deskt	op 🔎
Organize 🔻 New folde				:= - 1 0
★ Favorites ▶ Desktop ▶ Downloads ₩ Recent Places ■ Libraries ■ Documents ▶ Music	Name	Size 3,172 KB	Item type DATA File	Date modified 2011/12/5 上午:
E Pictures Videos Homegroup Computer File n	∢ ame: Sample.data		Data Memory	File (*.data) ▼
		(	Open	Cancel

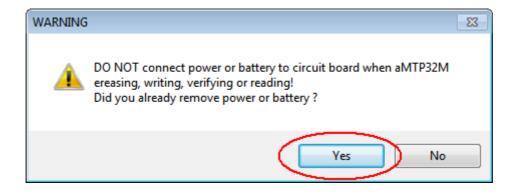
5. Software will get programmed file check sum, then show on the file path left.

aSPI28W USB writer	- • •
Option Tools About	
Writer	Writer Connect
Erase	
Write Getting Check Sum	
Verify	31%
aSPI28W USB writer	
Option Tools About	
Option Tools About Writer	Writer Connect
Writer Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	Writer Connect
Writer	

6. Click [ Write ] to program the file to aMTPxxM chip.

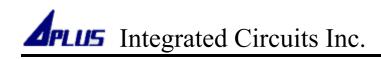
aSPI28W USB writer	- • ×
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Load Completed!	
Verify	100%

7. Check power or battery already removed, then click [Yes].



8. Software will start to erase, program and verify automatically.

aSPI28W USB writer	
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Erasing	
Verify	34%



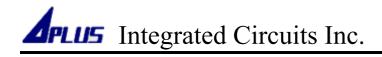
9. When write successfully, software will show "Verify completed".

aSPI28W USB writer	- • •
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Verify completed!	
Verify	100%

10. You can do erase or verify only by [ Erase ] or [ Verify ] .

aSPI28W USB writer	- • 💌
Option Tools About	
Writer	Writer Connect
Erase D0C2 C:\Users\APLUS\Desktop\Sample.data	
Write Verify completed!	
Verify	100%

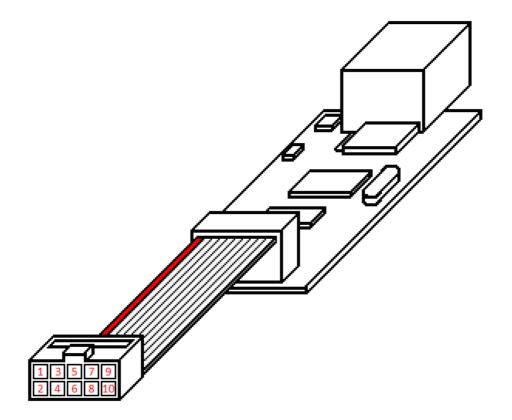
11.Now, you can remove aSPI28W USB writer, connecting power and speaker to play. About how to use DBMFL-ENG2, please refer [ DBMFL-ENG2 user guide].



## Program Data To aMTPxxM (Single Chip Program)

◆ aSPI28W PIN CONFIGURATIONS

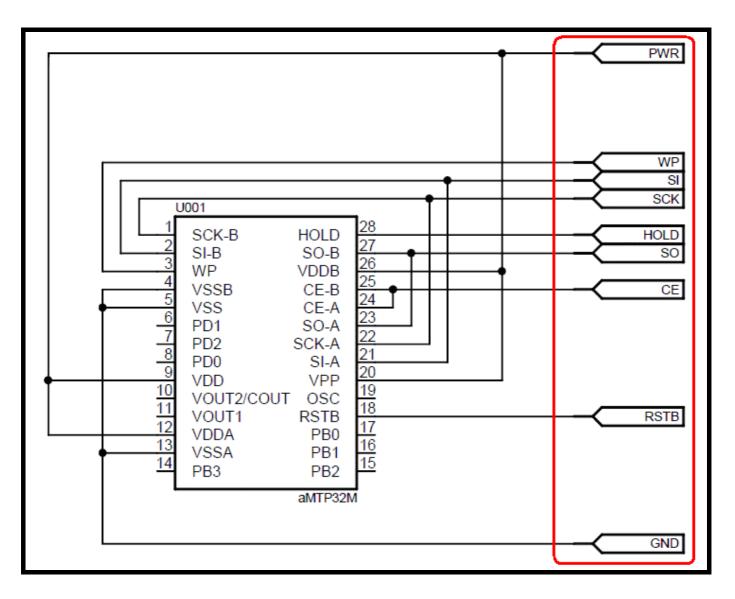
Ver 1.2



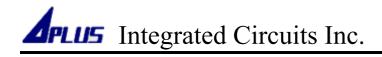
Pin Number	Pin Name	Description
1	WP	Write Protect
2	RSTB	Reset Pin
3	SCK	Serial Data Clock
4	CE	Chip Enable
5	PWR	Power VDD
6	NC	
7	SO	Serial Data Output
8	SI	Serial Data Input
9	GND	Power Ground
10	HOLD	Data Hold

• Single Chip Program

Connected aSPI28W USB writer to below circuit through program pin, then you can start to program aMTPxxM.

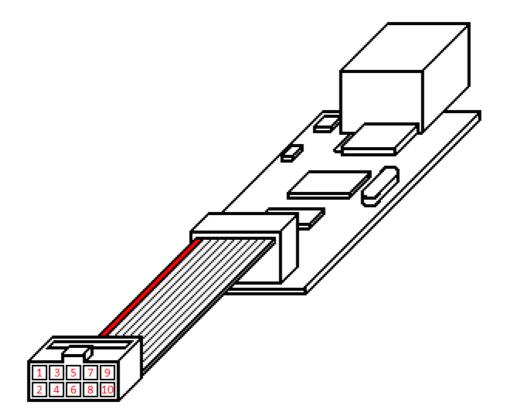


• Warning: aSPI28W PWR pin will offer power to circuit. So before connecting to aSPI28W, you must remove any other power source and device which may input signal to circuit.



## Program Data To aMTPxxM (In-Circuit Program)

◆ aSPI28W PIN CONFIGURATIONS

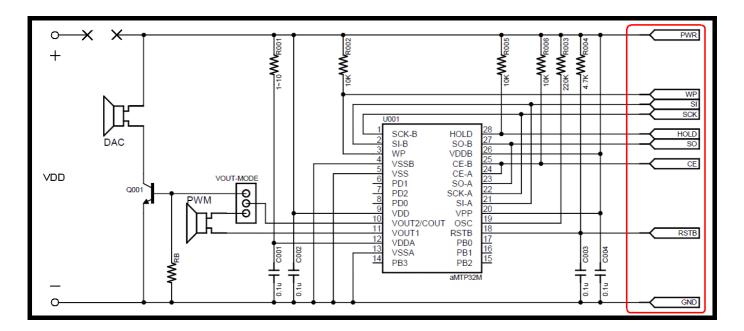


Pin Number	Pin Name	Description
1	WP	Write Protect
2	RSTB	Reset Pin
3	SCK	Serial Data Clock
4	CE	Chip Enable
5	PWR	Power VDD
6	NC	
7	SO	Serial Data Output
8	SI	Serial Data Input
9	GND	Power Ground
10	HOLD	Data Hold

aSPI28W

• In-Circuit Program (Writer Provide Supply)

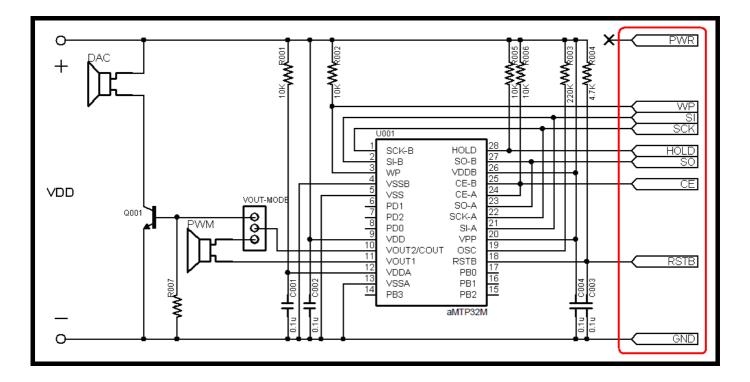
Connected aSPI28W USB writer to your application circuit through program pin, then you can start to program aMTPxxM with your application circuit.



• Warning: aSPI28W PWR pin will offer power to circuit. So before connecting to aSPI28W, you must remove any other power source and device which may input signal to circuit.

• In-Circuit Program With (User Provide Supply)

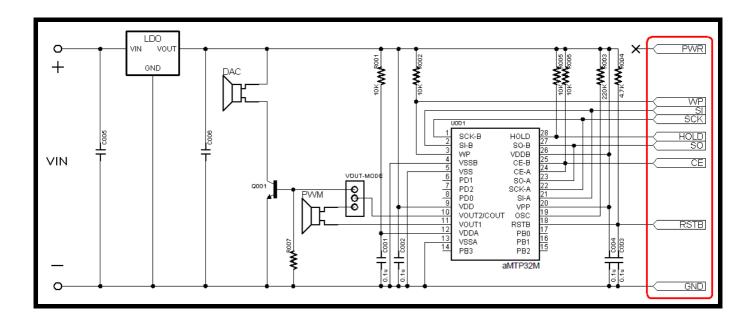
Connected aSPI28W USB writer to your application circuit through program pin and provide VDD, then you can start to program aMTPxxM with your application circuit.



• User provide supply VDD, VDD need between 3.3V and 3.6V.

• In-Circuit Program With LDO (User Provide Supply)

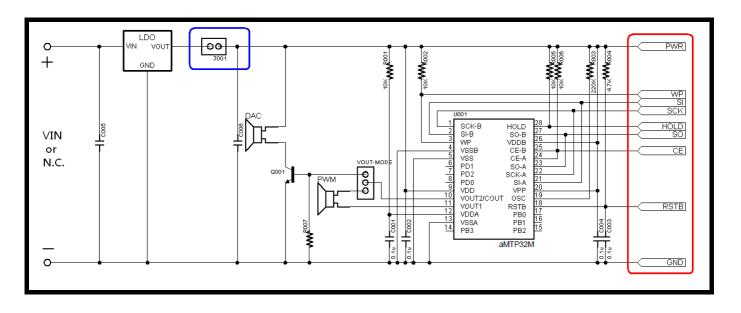
Connected aSPI28W USB writer to your application circuit through program pin and provide VDD, then you can start to program aMTPxxM with your application circuit.



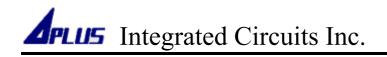
• User provide supply VDD, VDD need between 3.3V and 3.6V.

• In-Circuit Program With LDO (Writer Provide Supply)

Open J001, then connected aSPI28W USB writer to your application circuit through program pin. Now you can start to program aMTPxxM with your application circuit.



- Warning: aSPI28W PWR pin will offer power to circuit. So before connecting to aSPI28W, you must open J001 to prevent power into LDO VOUT pin.
- When program finished, remove aSPI28W first, then close J001 to start voice play.



## HISTORY

2012/01/06
2012/01/04
2011/12/05