



IC

语音合成LSI

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▶ 内置大容量P2ROM™ 语音合成LSI
▶ 内置中·小容量Flash/Mask ROM 语音合成LSI

内置大容量P2ROM™ 语音合成LSI

(LAPIS Semiconductor产品)

I²C接口 2ch同时播放/搭载功放												
Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (°C)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time(sec) ^{*1}	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22863	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 4M	4096 ^{*2}	258	I²C	0.7/ AB-class	2ch	16bit	—	SSOP30
ML22864	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 8M	4096 ^{*2}	520	I²C	0.7/ AB-class	2ch	16bit	—	SSOP30
ML22865	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 16M	4096 ^{*2}	1044	I²C	0.7/ AB-class	2ch	16bit	—	SSOP30
I²C接口 搭载语速音程变换功能/搭载功放												
ML22763	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 4M	4096 ^{*2}	258	I²C	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
ML22764	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 8M	4096 ^{*2}	520	I²C	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
ML22765	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 16M	4096 ^{*2}	1044	I²C	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
时钟同步串行接口 2ch同时播放/搭载功放												
ML22823	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 4M	4096 ^{*2}	258	Clock synchronous serial	0.7/ AB-class	2ch	16bit	—	SSOP30
ML22824	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 8M	4096 ^{*2}	520	Clock synchronous serial	0.7/ AB-class	2ch	16bit	—	SSOP30
ML22825	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 16M	4096 ^{*2}	1044	Clock synchronous serial	0.7/ AB-class	2ch	16bit	—	SSOP30
时钟同步串行接口 搭载语速音程变换功能/搭载功放												
ML22723	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 4M	4096 ^{*2}	258	Clock synchronous serial	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
ML22724	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 8M	4096 ^{*2}	520	Clock synchronous serial	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
ML22725	2.7 to 3.6 or 4.5 to 5.5	4.096MHz	-40 to +85	P2ROM™ 16M	4096 ^{*2}	1044	Clock synchronous serial	0.7/ AB-class	1ch	16bit	Speech-speed and pitch conversion	SSOP30
时钟同步串行接口 内置P2ROM™/OTP												
ML22802/ ML22P802	2.7 to 3.6	4.096MHz	-20 to +85	P2ROM™ /OTP 2M	512 ^{*3}	131	Clock synchronous serial	—	1ch	12bit	—	SSOP30
ML22804/ ML22P804	2.7 to 3.6	4.096MHz	-20 to +85	P2ROM™ /OTP 4M	1024 ^{*4}	262	Clock synchronous serial	—	1ch	12bit	—	SSOP30
ML22808/ ML22P808	2.7 to 3.6	4.096MHz	-20 to +85	P2ROM™ /OTP 8M	1024 ^{*4}	524	Clock synchronous serial	—	1ch	12bit	—	SSOP30

^{*1}: ADPCM2取样, 频率为4kHz时的最长播放时间 ^{*2}: 1024个短语(1Bank) × 4Bank ^{*3}: 256个短语(1Bank) × 2Bank ^{*4}: 256个短语(1Bank) × 4Bank

内置中·小容量Flash/Mask ROM 语音合成LSI

(LAPIS Semiconductor产品)

时钟同步串行接口型式 内置Mask ROM												
Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (°C)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time(sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22562	2.7 to 5.5	4.096MHz	-40 to +85	Mask 2M	1024	98 ^{*1}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30
时钟同步串行接口型式 内置Flash/Mask ROM												
ML22563/ ML22Q563	2.7 to 5.5	4.096MHz	-40 to +85	Mask/Flash 4M	1024	201 ^{*1}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30
ML22321/ ML22Q321	2.3 to 5.5	4.096MHz	-40 to +85	Mask/Flash 920K	62	43 ^{*1}	Clock synchronization Serial	1.0/ AB-class	1ch	16bit	Disconnection detection/ Temperature protection circuit / Analog volume control	SSOP30
时钟同步串行接口型式 内置Flash ROM												
ML22Q374	2.0 to 5.5	4.096MHz (Built-in)	-40 to +85	Flash 692K	30	27 ^{*2}	Clock synchronization Serial	1.0/ D-class	1ch	—	Disconnection/Short circuit detection Built-in oscillator	SSOP16
I²C接口型式 内置Flash ROM												
ML22Q394	2.0 to 5.5	4.096MHz (Built-in)	-40 to +85	Flash 692K	30	27 ^{*2}	I²C	1.0/ D-class	1ch	—	Disconnection/Short circuit detection Built-in oscillator	SSOP16

^{*1}: HQ-ADPCM取样, 频率为6.4kHz时的最长播放时间 ^{*2}: 用ADPCM2取样, 频率为6.4kHz时的最长播放时间

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对应外挂存储器 语音合成LSI

(LAPIS Semiconductor产品)

4ch同时播放串行外挂存储器												
Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (°C)	ROM Capacity (bit)	Number of Phrase	Maximum Playback Time	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package
ML22460	2.7 to 5.5	4.096MHz	-40 to +85	External maximum 128M	1024	139min ^{*1}	I ² C	0.7/ AB-class	4ch	16bit	—	SSOP30
ML22420	2.7 to 5.5	4.096MHz	-40 to +85	External maximum 128M	1024	139min ^{*1}	Clock synchronization Serial	0.7/ AB-class	4ch	16bit	—	SSOP30
ML22594	4.5 to 5.5	4.096MHz	-40 to +105	Mask 6M ^{*4} External maximum 128M	1024 ^{*5} (Built-in 512/ External 512)	Built-in 303sec ^{*2} External 109min ^{*3}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Speaker terminal short circuit detection function	SSOP30

^{*1}: 用ADPCM取样, 频率为4kHz时的最长播放时间 ^{*2}: 用HQ-ADPCM取样, 频率为6.4kHz时的最长播放时间
^{*3}: 使用外挂存储器(Max.128Mbit)时, 用HQ-ADPCM取样, 频率为6.4kHz时的最长播放时间
^{*4}: 内置Mask ROM可用6Mbit与外挂存储器(Max.128Mbit)连接。
^{*5}: 内置Mask的512个短语和外挂存储器512个短语的合计值

车载用 语音合成LSI

(LAPIS Semiconductor产品)

可在105°C下使用 4ch同时播放内置Mask ROM+串行外挂存储器												
Part No.	Operating Voltage (V)	Operating Frequency	Operating Temperature (°C)	ROM Capacity (bit)	Number of Phrases	Maximum Playback Time(sec)	CPU I/F	SP Amp Output (W) /Class	Number of Mixing (Internal)	DAC	Others	Package Automotive Grade
ML22594	4.5 to 5.5	4.096MHz	-40 to +105	Mask 6M ^{*4} External maximum 128M	1024 ^{*5} (Built-in 512, External 512)	Built-in 303sec ^{*1} External 109min ^{*3}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Speaker terminal short circuit detection function	SSOP30 YES
可在105°C下使用 4ch同时播放内置Mask ROM												
ML22572	2.7 to 5.5	4.096MHz	-40 to +105	Mask 2M	1024	98 ^{*1}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30 YES
可在105°C下使用 4ch同时播放内置Flash/Mask ROM												
ML22573/ ML22Q573	2.7 to 5.5	4.096MHz	-40 to +105	Mask/Flash 4M	1024	201 ^{*1}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Fail safe	SSOP30 YES
可在105°C下使用 4ch同时播放内置Flash ROM												
ML22Q553	4.5 to 5.5	4.096MHz	-40 to +105	Flash 4M	1024	201 ^{*1}	Clock synchronization Serial	1.0/ AB-class	4ch	16bit	Speaker terminal short circuit detection function	SSOP30 YES
85°C对应 内置Flash/Mask ROM												
ML22321/ ML22Q321	2.3 to 5.5	4.096MHz	-40 to +85	Mask/Flash 920K	62	45 ^{*1}	Clock synchronization Serial	1.0/ AB-class	1ch	16bit	Disconnection detection/ Temperature protection circuit/ Analog volume control	SSOP30 YES
85°C对应 内置Flash ROM												
ML22Q374	2.0 to 5.5	4.096MHz (Built-in)	-40 to +85	Flash 692K	30	27 ^{*2}	Clock synchronization Serial	1.0/ D-class	1ch	—	Disconnection/ Short circuit detection Built-in oscillator	SSOP16 YES
ML22Q394	2.0 to 5.5	4.096MHz (Built-in)	-40 to +85	Flash 692K	30	27 ^{*2}	I ² C	1.0/ D-class	1ch	—	Disconnection/ Short circuit detection Built-in oscillator	SSOP16 YES

^{*1}: HQ-ADPCM取样, 频率为6.4kHz时的最长播放时间 ^{*2}: 用ADPCM2取样, 频率为6.4kHz时的最长播放时间
^{*3}: 使用外挂存储器(Max.128Mbit)时, 用HQ-ADPCM取样, 频率为6.4kHz时的最长播放时间
^{*4}: 内置Mask ROM可用6Mbit与外挂存储器(Max.128Mbit)连接。
^{*5}: 内置Mask的512个短语和外挂存储器512个短语的合计值

