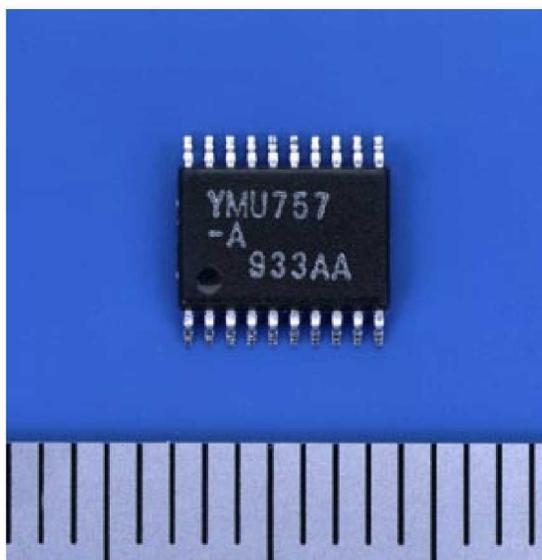


To allow a high-quality sound of the melody ringtones built-in FM sound

LSI sound chips for mobile phones capable of rich musical expression in a variety of tone

## Yamaha sound generator LSI "YMU757"

- Content provider for authoring tools provide -



Yamaha sound generator LSI "YMU757"  
Sample Price: 600 yen (excluding tax)

September 1999

As a sound source LSI for mobile phones, we will start from Thursday, September 30 sample shipments Yamaha sound generator LSI to achieve and melody ringtones high-quality sound of "YMU757".



### <Product Overview>

Since last year, and continues to grow in both the telephone company melody ringtone to inform in the melody ring tone of an incoming call, such as a mobile phone or PHS has attracted wide popularity, to provide service, support model. I show other data or delivery service of melody ringtone by e-mail function, a book for you to enter a melody to the phone on your own is hit, CD with bundled a guide for input as well as on the market, a variety of spread have.

To begin sampling recently "YMU757" is a general-purpose sound source LSI of mobile phone · PHS for the higher sound quality greatly, to multiple functions such melody ringtone. Melody ringtone of current, to're playing the melody is based on a monotonous electronic sound, the "YMU757" FM sound of our own, which is widely used in a PC sound card or synthesizer (Note 1 I have a built-in). In addition to have prepared the tone of the 128 species as the standard library, since the polyphony of up to 4 sound is

possible with different tones each, expressive power of the music of the incoming sound will be greatly improved. In addition, addition to being able to play melodies high-quality sound in the performance data of a compact size, and hardware sequencer that can also play a complex melody without putting a burden on the CPU of the mobile phone, to match the model of the speaker body and the shape of the phone In such a built-in equalizer circuit that can be corrected Te sound quality, It is designed in consideration the ease of use of the built-in to the phone. In addition, I am fit on one chip for the first time in the industry as a sound source LSI for single item, 300mW amplifiers capable of driving dynamic speaker. This eliminates the need for a separate speaker amplifier is eliminated, providing space saving.

The Company also developed authoring tools, including for due to this development of "YMU757", to maximize the performance of "YMU757", a library of sounds, board evaluation, the software of the performance data creation and editing We have. Authoring tool, will provide the content providers to develop performance data. Further, in order to realize the content of the various forms as well as music-on-hold phone melody or ringtone new multi media format that can be handled simultaneously with the melody still image data and text, and we are recommended.



In addition, demonstration ringtone with "YMU757", the Music on Hold < <http://www.yamaha.co.jp/news/ymudemo.html> you can audition from>.

The main features of the "YMU757" are as follows.

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## <Key Features>

### 1. Music in high-quality melody ringtone

The "YMU757", I have a built-in FM sound of Yamaha's original, which is widely used in a PC sound card or synthesizer. In addition to tone (GM (\*) or equivalent) of are provided 128 species as the standard library, in order to Umidaseru sounds infinitely the principle, the sound of a music box bell sound or of black telephone style, such as Ya what works sound basis FM sound rhythm instrument sound is also pronounceable. 4 maximum sound, polyphony is possible to assign a different tone each addition to the chord of four notes. For this reason, for the melody ringtones by monotonous electronic sound of current, expressive power of music as gives you better. Furthermore, because it can be provided from the outside of the "YMU757" not fixed, tone data can be reproduced by using the appropriate tone melodies each without being limited to the preset. \* The standard for voice allocation GM = General MIDI, MIDI (Note 2)

### 2. Performance data capacity compact

The FM sound system, the size of the performance data can be small while playing melody high quality expressive, data transfer rate of mobile phone in the current, has become the performance data of a size compact enough to fit memory capacity .

### 3. Design thought convenience of built-in time

In addition to a built-in hardware sequencer that can also play a complex melody without putting a burden on the CPU of the mobile phone, data input to the sequencer, to transfer performance data from the memory of the mobile phone inside via the serial port Because you are taking a system, there is no limit of data capacity (playing time). It also has a friendly design and ease of use of the built-in time and also support the earphone output terminal capable of independent volume control, and feature-rich.

### 4. Built-in equalizer circuit and speaker amplifier

"YMU757" has been built for the first time in the industry as a sound source LSI for single item, 300mW amplifiers capable of driving dynamic speaker mounted to a mobile phone is common in the future. This space saving Accordingly, it is not necessary to separately prepare amplifier. In addition, we have a built-in equalizer circuit for correcting the frequency characteristics that are different for each model of the speaker and the body shape of the phone. can be

pronounced in optimum sound quality.

## 5. Recommended data format authoring tools and the development

The content provider for, I am also developing authoring tools, including a library of sounds, board evaluation, the software of the performance data creation and editing. As a result, the melody of high-quality sound that can be developed content creators. In addition, not only the music on hold and melody ring tones, to be able to develop the content of a variety of forms and lyrics with melodies that can be used in practice, such as karaoke, and game function with music, at the same time that melody still image data and text It also developed a multi-media format that can be handled, and we are recommended.

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### <Release Date and Price>

Product Name	Product No.	Sample Price	Availability dates
Yamaha sound generator LSI	YMU757	600 yen	September 30

© sale planned initial number: 2,000,000 pcs / month

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### <Note>

#### 1) FM sound

I mean frequency modulation stands for Frequency Modulation and FM. The sound current method of Yamaha's original which can perform sound making on the basis of this principle. Electronic sound synthesis sound from natural instruments to, can be a wide range of sound making a relatively simple circuit using this method.

#### 2) MIDI (MIDI = Musical Instrument Digital Interface)

It is the one that has been digitized performance information in the international standards to control and electronic musical instrument, in which timing, such as, play on the strength of how much. With this data, I can be controlled from other electronic instruments and computer, the instrument corresponding to the MIDI standard.

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### <Main Specifications>

The main features and specifications	· FM sound source function deployment of its own (4 tone Allowed independent) 4 Sound and Maximum Polyphony hardware sequencer built-in speaker with built-in amplifier and sound quality correction equalizer circuit built-in power-down mode support (Typ 1 $\mu$ A below)
Power	3.0V $\pm$ 10%
Process	CMOS
Package	20-pin plastic TSSOP

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