



Accountability
Innovation
Teamwork

[Applications](#)[Solutions](#)[Worldwide Sales](#)[Product Search](#)[Product Reference](#)[RoHS Report](#)[Home](#) \ [Product & Sales](#) \ [Product Lines](#) \ [Consumer Electronics IC](#) \ [Speech ICs](#) \ [BandDirector™ Family](#)

BandDirector™ Family

Part No.	W566Bxxx
Datasheet	N/A
Description	<p>The W566Bxxx is a powerful embedded microcontroller (uC) dedicated for speech and melody synthesis application. This series IC is tailored for plush toy, educational toy or music instrument. With the help of 16 bits microprocessor (uP) W566-16, the W566Bxxx can synthesize multi-channel speech and melody. 3-track of synthesized speech can be in different kinds of format, for example ADPCM and MDPCM. Regarding synthesized melody, W566Bxxx can provide 2-track of Tone melody (T-melody) plus 2-track percussion sound (2T+2Per), or 3-track of High-Quality melody (HQ-melody) that can emulate the characteristics of musical instruments. These signals can be mixed flexibly through 4-input Mixer to produce colorful effect. The result of Mixer is converted to analog signal to drive speaker output.</p> <p>W566Bxxx has two kinds of power saving modes: one is HOLD mode and the other is STOP mode. In HOLD mode, the specific peripherals can be inactivated and IC can operate at the sub-clock. Consequently, the W566Bxxx can perform some special tasks periodically. In STOP mode, all the IC's peripherals are disable which is designated specially for try-me application. Besides, W566Bxxx can sink 8mA at most for high-current application.</p>
Features	<p>Wide operating voltage: 4MHz @ 2.4 volt ~ 5.5 volt 8MHz @ 3.6 volt ~ 5.5 volt</p> <p>Sophisticated power managements: dual system clocks, one is 8MHz and the other is 32768 Hz HOLD mode for dealing with interrupt events only STOP mode for stopping all IC operation</p> <p>4 input pins 16 I/O pins and 8 of them can sink 8mA in their output portion 10-bit Current type digital-to-analog converters (DAC) to drive speaker output Multiple synthesized speech formats: ADPCM/MDPCM/PCM 3 tracks synthesized ADPCM/MDPCM speech at programmable playback rate 2 tracks Tone melody which can emulate envelope of music instruments 3 tracks High-Quality melody that can emulate characteristic of musical instruments 4-input/10-bit-resolution Mixer can mix the speech and melody signals flexibly Built-in IR carrier generation circuit for simplification firmware IR application Built-in 4 timers for speech/melody synthesis and general purpose application Available package: COB</p>
Diagram	N/A
Package	N/A
Other Files	N/A
Development Tools	ICE
Others	N/A

Contact us: MicroC-PS@nuvoton.com