


**General Purpose Audio Codec 2ADC / 2DAC Ch 48-Pin VQFN  
EP T/R**

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	QFN48
<b>Product Type:</b>	Communication & Networking ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

## General Description

The TLV320AIC33IRGZR is an audio codec (coder/decoder) IC developed by Texas Instruments. It is designed to provide high-quality audio processing and interfacing capabilities for a variety of audio applications.

### Key Features

- Stereo Audio DAC
- 100-dBA Signal-to-Noise Ratio
- 16/20/24/32-Bit Data
- Supports Rates From 8 kHz to 96 kHz
- 3D/Bass/Treble/EQ/De-emphasis Effects
- Stereo Audio ADC
- 92-dBA Signal-to-Noise Ratio
- Supports Rates From 8 kHz to 96 kHz
- Ten Audio Input Pins
- Programmable in Single-Ended or Fully Differential Configurations
- 3-State Capability for Floating Input Configurations
- Seven AudioOutput Drivers
- Stereo 8-, 500-mW/Channel Speaker Drive Capability
- Stereo Fully Differential or Single-Ended Headphone Drivers
- Fully Differential Stereo Line Outputs

### Application

The TLV320AIC33IRGZR is commonly used in applications such as smartphones, tablets, portable audio players, digital voice recorders, voice communication systems, and other audio-related devices.

Fully Differential Mono Output

Low Power: 14-mW Stereo 48-kHz  
Playback With 3.3-V Analog Supply

Programmable Input/Output Analog Gains

Automatic Gain Control (AGC) for Record

Programmable Microphone Bias Level

Programmable PLL for Flexible Clock  
Generation

Control Bus Selectable SPI or I2C

Audio Serial Data Bus Supports I2S,  
Left/Right-Justified, DSP, and TDM Modes

Alternate Serial PCM/I2S Data Bus for Easy  
Connection to Bluetooth? Module

Digital Microphone Input Support

Extensive Modular Power Control

Power Supplies:

Analog: 2.7 V-3.6 V.

Digital Core: 1.65 V-1.95 V

Digital I/O: 1.1 V-3.6 V

Packages: 5 × 5 mm 80-VFBGA; 7 × 7 mm  
48-QFN



**Recommended For You**

**TLV320AIC23BIPWR**

Texas Instruments, Inc  
TSSOP28

**TLV320AIC3104IRHBR**

Texas Instruments, Inc  
QFN32

**TL16C554AIPN**

Texas Instruments, Inc  
LQFP80

**TLV320AIC3101IRHBR**

Texas Instruments, Inc  
QFN32

**TL16C554APN**

Texas Instruments, Inc  
LQFP80

**TLV320AIC24KIPFBR**

Texas Instruments, Inc  
TQFP-48

**TL16C554PN**

Texas Instruments, Inc  
QFP

**TLV320AIC24KIPFB**

Texas Instruments, Inc  
TQFP-48

**TL16C752BLPTREP**

Texas Instruments, Inc  
LQFP-48

**TL16C550DIPFBR**

Texas Instruments, Inc  
48-TQFP

**TLC320AC01CFN**

Texas Instruments, Inc  
PLCC28

**TL16C552AFN**

Texas Instruments, Inc  
PLCC

**TL16C450FN**

Texas Instruments, Inc  
PLCC44

**TL16C554FN**

Texas Instruments, Inc  
PLCC

**TLV320AIC311RHBR**

Texas Instruments, Inc  
VQFN32