# Digital Acoustics qBridge

The Ultimate Solution to Streamline Quick-Serve Ordering

Every business is striving to do more with less, and quick-serve restaurants are no exception. They face challenges from all sides, including labor shortages, rising food costs, increased wage demands, and customers seeking value deals.

The qBridge from Digital Acoustics offers a cost-efficient solution designed to connect a restaurant's existing drive-thru system with a Cloud-based audio service. Cloud integration can support either an AI service provider or a call center.

## Product Details

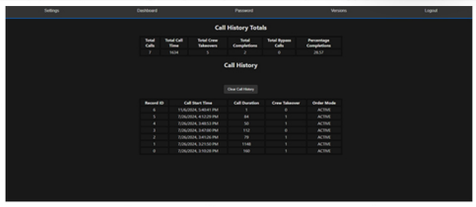
Below are the key capabilities of the feature-rich qBridge:

**Crew Member Takeover**
By connecting the qBridge to a restaurant's base station, a conference bridge is created, enabling seamless integration of VoIP calls via SIP. This setup connects the headset and microphone worn by the quick-serve employee, and the microphone and speaker at the lane with a third-party customer call, as well as with the AI provider or call center. With the qBridge, a crew member can hear both sides of the conversation in wide-band audio quality directly through the existing base station headset. The "Crew Member Takeover" feature allows the crew to unmute quickly and, when needed, take over the call from the AI provider or call center, ensuring smooth order handling as the order is processed through the POS system.

**Software Bypass Mode**
Placing the qBridge in Software Bypass Mode facilitates AI model training before going live, enhancing the onboarding experience. In this mode, only the crew member's voice is transmitted through the drive-thru speaker, simulating standard operation. Even though normal use of the drive-thru system is mimicked, an echo cancelled call to the AI service is still allowed to happen.

**Hardware Bypass Mode**
The flexible qBridge features a switch for activating Hardware Bypass Mode, allowing the user to completely bypass the device. This switch enables a crew member to disconnect the AI when necessary. If the qBridge loses power or is unplugged, it automatically switches to Hardware Bypass Mode. In this mode, the qBridge ceases all outbound calls. This feature gives restaurant owners peace of mind, knowing they can switch back to their previous system at any time if needed.

**Configurable Web Page**
The qBridge web page allows users to configure account settings, including phone numbers or SIP URI's to dial when a car enters the lane, as well as options for adjusting echo cancellation and codec settings. Through the dashboard, users can access valuable data such as the number of cars processed in the drive-thru over a specified time, the frequency of crew member takeovers, and the count of successful AI-handled orders.




**MQTT Protocol**
With the MQTT protocol, customers can establish a centralized portal to manage an entire fleet of qBridge devices, streamlining operations across multiple locations. This setup eliminates duplicate efforts, enabling users to aggregate call data for service provider analysis, adjust settings, integrate tools, and perform other management tasks efficiently from one central hub.

## Unprecedented Cost Savings

Unlike other solutions on the market, the qBridge does not require a costly "rip and replace" approach. Compact enough to fit in the palm of a hand, the qBridge integrates easily with current drive-thru setups. There is no need to buy new microphones, speakers, or incur the expense of rewiring and running conduit beneath the concrete to the outdoor equipment. Even crew members' existing headsets and microphones are compatible, making this a cost-effective solution without incurring capital expenses.

Furthermore, with labor shortages, the qBridge allows quick-serve restaurants to operate more efficiently by maximizing each crew member's productivity.

## Key Specifications:

### General Information

- Dimensions: 16.5cm x 10.75cm x 3.5cm
- Weight: 418 grams

### Technical Specifications

- Power Source: 12V wall wart power supply, 1.5A, barrel jack 2.1 ID 2.5 OD – center tip positive
- Power Requirements: 12V, 1.5A
- Operational Temperature Range: 0-60°C
- Frequency Range: Up to 8kHz (16kHz sampling frequency)
- Echo Cancellation: WebRTCAEC3 for software echo cancellation
- Supported Audio Codecs: G711, G722
- Supported Protocols: SIP/TLS, MQTT/S, HTTP/S, RTP/S, RTCP
- IPv6 Support: Yes
- Network Security Features: TLS

### Warranty/Support Plan

- Two-year warranty plan
- Support/replacement plan available for a monthly fee post-lease/warranty period

## About Digital Acoustics

Founded in 2003, Digital Acoustics is a true innovator in digital communications technology, producing practical solutions that enhance safety and security, and help serve people around the globe. The company offers HD IP audio communications for a wide variety of markets. Digital Acoustics serves clients in the education, transportation, retail, military and government, hospitality, corrections, industrial, and healthcare industries. Corporate headquarters are located in the Chicago suburb, Des Plaines. For more information, visit **DigitalAcoustics.com** or follow Digital Acoustics on **LinkedIn**.

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