

# SKULLCANDY TURNS UP THE VOLUME IN GROUNDBREAKING AUDIO BRANDS WITH JABIL'S UNPARALLELED ACOUSTICS, SUPPLY CHAIN & MANUFACTURING EXPERTISE

# JABIL

## Case Study



**Company:** Skullcandy

**Industry:** Consumer Electronics

**Country:** Park City, Utah, USA

**Employees:** 300

**Websites:** skullcandy.com



## CHALLENGES

- Needed new manufacturing partner to fulfill existing product vision.
- Required elevated acoustics and engineering expertise to drive product innovations.
- Faced intense time-to-market pressures in highly competitive segment.

## SOLUTION

- Jabil's acoustics and engineering experts went above and beyond to make product vision a reality.
- Jabil's real-time supply chain visibility alleviated constraints in commodities market.
- Jabil's collaborative approach fueled delivery of most innovative products to date.

## BENEFITS

- Crusher 360 completed on time and at cost, enabling Skullcandy to secure Best Buy distribution deal.
- Time to market for Venue cut in half; made holiday season target.
- Seamless integration of Jabil and Skullcandy teams ensures continued fast pace of new product innovations and introductions.

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**Jason Luthman,  
Product Line Manager,  
Skullcandy**



Skullcandy stands out in the incredibly competitive audio products market thanks to groundbreaking technology and revolutionary industrial designs in appealing colors and styles. Founded in 2003, the Park City, Utah-based company has experienced hyper growth following a rapid succession of iconic product introductions that redefine immersive audio experiences.

In 2016, Skullcandy became the No. 1 unit mover for products below \$100, thanks to an unwavering focus on delivering the right products at the right price points for young consumers. Over time, Skullcandy's unique industrial designs have embodied groundbreaking technology innovations and leading-edge features to support premium, multisensory experiences that take music, movies and media content to entirely new levels.

"Our goal is to make all forms of media more fun and engaging for our customers," explains Jason Hodell, CEO of Skullcandy. "If we continually build products that solve their problems, they'll choose Skullcandy before the rest."

## Crush the Competition

To stay a market leader, with sustained relevance and innovation while introducing more game-changing products, means the bar is raised every time around. "Competition never stops," Hodell adds. "There's an intense battlefield right now, and the only way we'll continue to win is to focus on our target consumer and what they want."

This certainly was the case when Skullcandy entered into production of its Crusher 360 headphone, a limited edition wireless model touting an unparalleled, immersive audio experience. Taking advantage of haptic technology, the Crusher 360 features patented Skullcandy know-how to deliver a unique sensory vibration to provide "bass you can feel."

To accomplish this, Skullcandy uses separate pressure drivers that vibrate the headphone in perfect unison with the bass sound. Considered the deepest bass experience available, the Crusher 360 also includes digital signal processing and accelerated charging capabilities.



"The level of technical complexity in our products is increasing exponentially," says Jeff Hutchings, VP of Product for Skullcandy. "Today, it's really a computer on your head. Having a partner that can play in that realm is really crucial." The Crusher 360, for example, has three microprocessors, digital signal processors and two different drivers in each ear cup.

The elevated expertise needed in acoustics, tuning and electrical engineering to build this sophisticated product was beyond the reach of several early manufacturing partners. "We'd worked on this project for a few years with different manufacturers that couldn't make our vision a reality," recalls Dylan Priest, director of sourcing for Skullcandy. "Luckily, the Jabil team was able to step in and get the final product to market."

Jabil not only brought superior acoustics experience, but the company's vertical integration capabilities also were instrumental. "We were looking for a team that could more or less be an extension of our internal team," says Jason Luthman, product line manager at Skullcandy. "From injection molding to SMT, all the way to assembly, finished goods and pack-out, we were looking for a very well-rounded, all-encompassing partner."

Jabil teams in Silicon Valley and Wuxi, China, immediately took control of the project and put it back on track to meet Skullcandy's stringent cost and quality requirements. "Whenever you're changing factories with a product that's already in motion, it's extremely difficult. It does keep you up at night," remembers Hodell. "Jabil literally took over the inventory of parts and delivered the final product on time and at cost, which was remarkable."

The Jabil team met with Skullcandy's existing supplier to determine how best to address problems and achieve a successful completion. "Jabil's ability to pivot quickly, pick up the pieces, fill in the gaps and really be a soundboard for problem solving played a gigantic role in getting that product to market," Luthman says. As a result, Skullcandy secured an exclusive distribution pact for Crusher 360 with Best Buy, the biggest consumer electronics retailer in the world, for the upcoming holiday season.

"Jabil has been an incredible partner on some of the most complex projects and products Skullcandy has ever produced," adds Luthman. "The lessons learned and the experience we've gained through developing those products really builds confidence moving forward." This confidence and partnership with Jabil proved invaluable when Skullcandy made its first foray into Active Noise Canceling (ANC) with the development of its premium Venue headphone.

### Block the Noise

For Skullcandy, designing products for its target consumers is key to continued success. That's why the company's approach to ANC differed from the competition right out of the gate. Today, most audio brands block out noise in a narrow frequency, such as low-frequency airplane noise.

In contrast, Skullcandy focused on the specific needs of its target demographic. "Our engineers took a tact that we're going to block noise across a wide spectrum, because we want our consumers, in a dorm room or a library, to be able to block out human voices—not just airplane noises," Hodell explains. "So, we are building Venue with our core consumer in mind."

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Venue features a custom ANC system based on Skullcandy's custom-tuned acoustics and industrial design. "Acoustic tuning is a critical aspect and really at the forefront of every product that Skullcandy produces," says Luthman. "So, having a complement in Jabil is critical to making sure we hit our golden standard for those targets."

Together, Skullcandy and Jabil engineers started from custom tune driver selections, graduating into mechanical designs while addressing a host of dependencies to fine-tune product design and achieve ideal results. "When you're doing a project like this, close-knit collaboration between the manufacturing and design team is critical," says Hutchings. "To optimize time to market, we had to iterate fast and close loops as quickly as possible."

Jabil's San Jose team suggested design improvements, some of which took Skullcandy by surprise, to deliver more consistent performance. Overall collaboration and complementary expertise were huge factors in expediting Venue's development. "Normally, you have nine months just for the industrial rotation phase," explains Hutchings. "We only gave ourselves 10 to 11 months to go from zero to mass production. With Jabil's help, we cut our total time to market in half."

During a visit to Jabil's Blue Sky Innovation Center in San Jose, the Skullcandy team saw firsthand how Jabil's supply chain expertise would address supply constraints in the commodities market. In particular, a demo of Jabil's InControl supply chain decision support solution illustrated the benefits of real-time visibility, instant collaboration and risk management across the entire supply chain. "One of the issues we face is commodities that are constrained," says Priest. "So, to have a real-time look into these situations and think out-of-the-box together enabled us to find a solution for the commodities needed to fulfill the BOM (bill of materials) of the headphone."

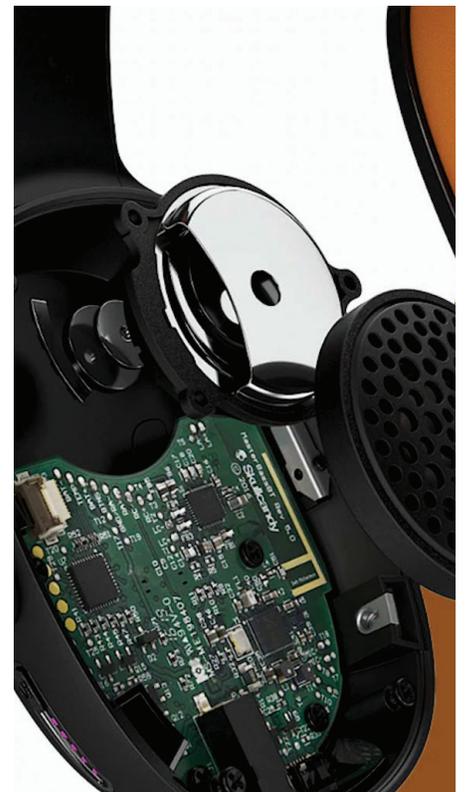


There were other unique challenges in Venue's design development, which included integrating Google and Tile smart location capabilities into the headphone. "We were feeding the Jabil team little sections of the headband or the ear cup design and they were doing DFM (design for manufacturing) iteratively," says Hutchings. "So, by the time we got to the RFQ phase, a lot of it was already done, and we were able to move so much more quickly."

The final result is a product that is receiving positive buzz and breaking records for pre-sales. "No headphone has ever come close to this," says Hodell. "Usually it takes more than a year to make a brand new product, and we only decided to make Venue as a headphone less than a year ago. But under the intense time pressures to have it ready for this holiday season, Jabil delivered."

## What's Next

Solidly established as an extension of Skullcandy's operations, Jabil's engineering, supply chain, business unit and manufacturing teams are partnering with Skullcandy to help bring the company's next wave of product breakthroughs to market. "The gritty approach to product development tends to be: Is it possible, can we do it and how can we do it?" concludes Luthman. "When you have a partner like Jabil who's willing to get gritty alongside you and understand the scope of your goals to pull those things off, that is something special."



### About Jabil

Jabil is a digital product solutions company providing comprehensive electronics design, production and product management services to global electronics and technology companies. Offering complete product supply chain management from facilities in 27 countries, Jabil provides comprehensive, custom solutions to customers in a broad range of industries. Nypro, a Jabil company, specializes in medical devices, with a global footprint of ISO 13485 and FDA registered facilities, manufacturing many of the most recognized medical brands for major healthcare and wellness companies. Jabil common stock is traded on the NYSE under the symbol, "JBL". Further information is available on Jabil's website: [jabil.com](http://jabil.com).