# INNOVATION, LIFE IN FOCUS

211 Arion Vacuum Tube Amplifier

z84 Hi-End Speaker

Hi-Fi Component

Sound-Bar & Wireless Woofer

Multiroom Speaker

Al Agent

**Smart Glass** 

Smart Audio-Visual Headphone



# 211 ARION VACUUM TUBE AMPLIFIER

Timeless Design and Hancrafted by Experts



Vacuum Tube Technology Dynamic Sound Quality The Power of High Voltage Expertly Crafted for Perfection



Using 6N6P at the pre-stage, which is a gold-grid tube, we have designed a new paradigm for tube amplifiers.

At the output stage, we utilize two single 211 tubes and have implemented our own design concept, the Optimized Grid Choke Circuit (OGCC). This innovative approach represents the latest flagship paradigm in electric tube circuitry.

This OGCC reproduces a silkier high frequency and a more rigid contour in the low range, resulting in a significant enhancement of overall musicality that cannot be found in any other tube amplifiers on the market today.



#### Classic Yet Next-Generation Tube Amplifier Circuit

Introducing the new 211 Vacuum Tube Amplifier, where classic craftsmanship converges with cutting-edge audio technology. This amplifier is equipped with two 211 output tubes, along with 6N6P and KT66 tubes serving as the pre-stage and drive stage.



#### Handcrafted to Perfection

By adopting point-to-point hardwiring, all internal assembly is done by an experienced crafftman manually. Each 211 amp is handcrafted, and all the components are hand picked and tested by experts in the tube industry.

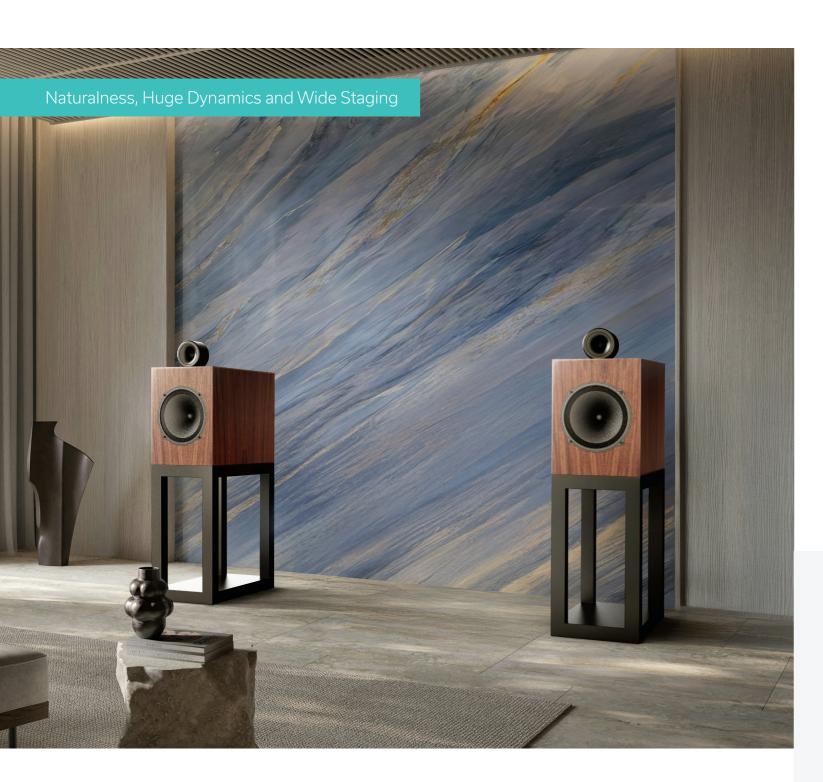
To enhance the sonic quality, the tube level plate and transformer level plate are robustly machined and kept separate. While the outer appearance of the 211 amp as beautiful as possible, all the precision circuits are residing in the huge cage that is built like a tank. All these efforts are dedicated only to the one object of Arion, 'Bring the Music Back' idea.



Tubes	First and Drive Stage Tube : 6N6P & KT66 Output Stage Tube : 211 Damper diode : CV1835
Input Types	RCA (2~3 pairs), XLR (1 pair)
Output Power	12 ~ 15 W
Output Impedance	4 and 8 ohm
Input Impedance	More than 100k ohm
Input Range	0 ~ 2 Vrms
Frequency & Gain Response	20Hz ~ 20KHz - 1dB
Power Consumption	Below 270 W
Size (WxHxD)	450 x 250 x 265 mm
Weight	35kg

### Z84 REFERENCE LOUDSPEAKER

Bring the Music Back



Performance-Level Sound High-Quality Sound Reproduction Special Crossover Network Natural Sound Reproduction



Creating speakers that well across all music genres is not an easy thing. Most speakers are limited to specific genreperforms of music. We have partnered with the renowned French legendary loudspeaker designer, Alain Pratali, to develop.

The Z84 2-way speaker system can play back any music, regardless of genre. To accomplish this requirements, we have developed the drivers from scratch. Driven by any well-designed amplification, you can not only hear the music as it was recorded but also experience the nuances of be-there staging to make you happy with the music. We designed this system to bring music back to you.

#### **Key Features**

The main driver, featuring a 9-inch midwoofer and a 1-inch horn tweeter, has been entirely newly developed. The cone and surround, made of specially formulated paper, were designed based on precise calculations. They are coated with specialized chemical materials in multiple layers, enabling high-quality sound reproduction. Custom-made voice coils, magnets, and magnetic poles ensure subtle response to detailed signals and also allow for dynamic playback.

Specially designed crossover network components are sourced from Rike Audio (Germany), while aluminum foil

coils midfrom Jentzen (Denmark). This sophisticated crossover ensures wide sound staging, dynamic range, and detail, making this 2-way speaker far more capable than expected. The cabinet features an open-back design that allows for natural sound reproduction across the range of 50 Hz to 20 kHz.









Impedance	6 Ohm
Amplifier requirement	10 ~ 150 W
Tweeter	1" with horn, custom designed by Alain Pratali
Woofer	9.5" custom designed
Sensitivity	95dB (1W 1m)
Frequency Performance	50Hz ~ 20KHz
Cabinet	tqwt short horizon type, specially designed for Z84
Terminal	WBT (Germany)
Size (WxHxD)	310 x 410 x 550 mm
Weight	21kg (speaker), 16kg (stand)
Finish	Oak, Rosewood High Gloss (special finish upon request)



#### GaN FET Amplifier Hi-Fi Component System

#### Cutting-Edge GaN FET Class D Amplifier

Utilizing the latest GaN FET technology, our Class D amplifier surpasses traditional Class A/AB amplifiers with exceptional efficiency and sound quality. Enjoy smooth, natural audio that flows effortlessly.

#### **Unparalleled Sound Quality**

Experience the pinnacle of audio excellence with powerful damping and superior linearity that transcend the boundaries of digital and analog technologies. Immerse yourself in pure, natural sound, close to the original.



#### **Customizable Sound Control**

Tailor your sound with adjustable Bass (100Hz) and Treble (10kHz) controls, offering a maximum adjustment of +/- 6dB. The high-fidelity Active EQ ensures personalized, perfect sound.

#### Design Follows Function

Our Hi-Fi component embodies the philosophy of internalizing external beauty. The robust aluminum chassis, matte finish, and precise grooves combine to offer both functionality and sophisticated aesthetics. Vintage-inspired buttons and controls add a touch of elegance to your space.



#### Hi-Fi AMP



Output Power	Stereo D-Class AMP (50W + 50W)
Main Chipset	SoC - MLC3740, HDMI - EP92A2S4
Audio Part	PWM : Discrete (AD825), GaN Driver & Gan FET : Infineon ADC : PCM1802 Function : ARC, USB/BT/OPTICAL/Phono EQ (MM)
Display	OLED
Size (WxHxD)	234 x 86 x 344 mm
Weight	6Kg

#### SPEAKER



Driver Type	1" dome tweeter x 1, 5" woofer x 1
Impedance	4 ohm
Frequency Range	Tweeter 800Hz~20kHz Woofer 20Hz ~ 6kHz
Crossover	2.5kHz
Size (WxHxD)	150 x 233 x 299 mm (x 2pcs)
Weight	5.4Kg (x 2pcs)





2 Color Available Rich & Realistic Sound







3pairs of Mid-Woofer and tweeter transducers on the sides spread sound into the room, delivering surprisingly deep and rich sound.

Support

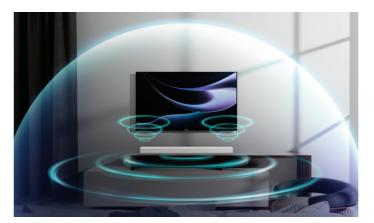
Bluetooth / Optical Input **Dolby** Dolby Atmos / DTS HD

HDMI 2.0 (eARC)

Wireless Subwoofer Support(Optional)

#### **Upward Firing Transducers**

Two upward-firing speakers located on the top of the soundbar reflect sound off the ceiling, creating realistic overhead effects.



#### Sound from Every Direction

Support 3 mode sound effects.

#### Stable and Balanced Sound

Applying Exclusive EQ Tuning to Improve the Balance of L/R)

#### Crystal Clear Audio

Create a theater-level experience with clear audio and a wide sound stage.



Speakers	8 total speakers 2" Tweeter x3, 1.7" Full-range x2, 4.3" x 2" Woofer x3
Frequency response	70 - 20,000 Hz
Sound Effect	Bass Boost, X-Surround, Game Sound
Connections Types	HDMI 2.0 / eARC/ Optical / USB /Bluetooth
Size (WxHxD)	1020 x 66.5 x 105 mm
Weight	3.0kg

<sup>\*</sup> Wireless woofer(BE-AW100) connectivity for base maximization

#### BE-AW100

# WIRELESS WOOFER

Breathe Bass into Every Corner

Supports Various Inputs Poweful Bass Wireless Deeper Bass Ready Unibody Design





#### **Supports Various Inputs**

Expand user functionality options: wired, wireless, analog line-in, crossover, and phase control.

#### Unibody Design

With its seamless features, the subwoofer for your Soundbar is compact and has a timeless unibody design that matches your home decoration.

#### Powerful Bass

Designed to complement the Arion soundbar, the subwoofer brings the sound even deeper; With a passive radiator, you can feel deeper bass even in a compact design.

#### Wireless Deeper Bass Ready

Set the subwoofer in your desired location to enhance your sound- bar's audio to get strong, rich bass throughout the room.





Connections Types	Wireless Active Subwoofer
Optional Function	Analog Line In, Crossover, Phase
Output Power	160 W
Frequency response	50 - 150 Hz
Speakers	2 Total Speakers 6.5" Woofer x1 , 8" Passive Radiator x1
Size (WxHxD)	250 x 253 x 250 mm
Weight	7.2kg
Body Material	Wood (MDF)

## MULTIROOM SPEAKER

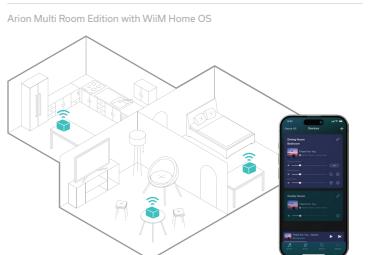
Every Room, Your Tune

Innovative Technology
Exceptional Sound Quality

Multi-Service Support Seamless Streaming







#### Multi-Service Support



### Experience the Future of Innovation : Smart Speaker Technology Today

Discover the perfect blend of innovative technology and exceptional sound quality with the Arion Multiroom Edition, featuring WiiM Home OS. Enjoy unparalleled music control and customization.

#### Crystal-Clear Hi-Res Audio

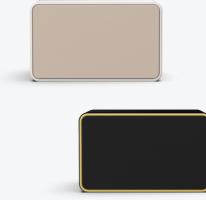
Stream music in stunning clarity with support for up to 192 kHz /32-bit, delivering studio-quality sound for the ultimate listening experience.

#### Powerful Output

Equipped with a 5" woofer, 1" tweeters x 2, this speaker provides rich, detailed sound that fills any room with immersive audio.

#### Multi-Service Support & Seamless Streaming

njoy easy access to over 21 popular music services, including Spotify, TIDAL, Amazon Music, and more, all from the WiiM Home App or stream directly via Apple AirPlay2, Google Chromecast, Spotify Connect, and TIDAL Connect.



System Componets	Network Speaker
Connections Type	Wi-Fi, Bluetooth, Optical, Analog Line-In, eARC
Supporting Audio Format	FLAC / AAC / ALAC / WAV / WMA / OGG / MP3
Amplification Type	D-Class Amplifier
Frequency Response	45 - 20,000 Hz
Output Power	56W
Sound Effect	EQ 24 preset & 10Band Graphic EQ
Speakers	3 Total speakers 1" Dome Tweeter x 2, 5" Woofer x 1
Connectivity Interfaces	Wi-Fi , Ethernet, Bluetooth
Size (WxHxD)	265 x 163 x 165.5 mm
Weight	3.05 kg



#### Lineup & Roadmap of XETT TM Integrated Devices.

#### XETT - Lite ™

Conersational AI Agent System for Audio only Smart Speaker & Smart Appliances



Voice Recognition

LLM-Based Smart Speaker System

Multi-Modal UX AI Agent System for Smart Display Devices & Smart Wearable Devices



Multi-Modal UX LLM Al Agent

Generative AI & Personal Al Agent System

Interactive Robot Platform for Automotive & Robot



On-Device Al SoC Platform

Self-Movement Interactive Reactive Motions/Sounds



#### Interactive Voice-Mode LLM AI Agent

LLM Model-Enabled interactive voice agent with OpenAI GPT, Anthropic Claude, Google Gemini and Meta Llama.

#### Multiple AI Agents & Wake-Words Support

- · EDNA General Purpose Al Agent
- DOCTOR Medical & Financial Research Al Agent
- · JOY Personal Lifecare Al Agent

#### Comparison & Analysis of LLM Agent Responses

A service that compares and highlights the similarities and differences between the responses of various LLM agents.

#### Multi-Modal UX Support

Weather information, music playback, and image creation and image sharing using Generative AI technology, Displays the requested service on the proper screen.

#### Personalized Agent Service

A service that organizes information about the user's daily activities a diary format through conversational interaction.

#### BUMJIN × \$\to\$-\text{PDNA NET}

This product was developed in collaboration with Bumjin Electronics and EDNANET Inc. It is built using EDNANET's XETT-Standard SoM (System-on-Module). For more detailed information on the module, please refer to the QR code below.





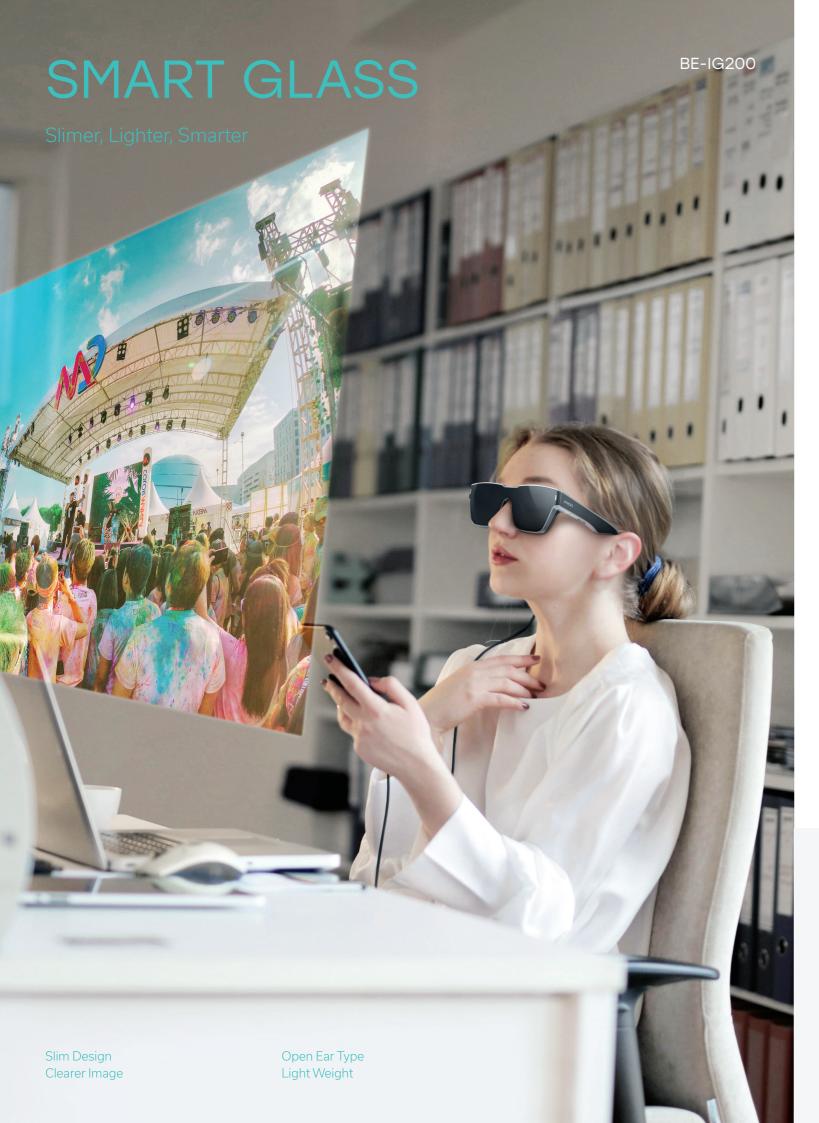








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Main Processor	Samsung Exynos 850 Octa core up to 2.0GHz ARM Cortex-A55
Memory / Storage	4GB LPDDR4 / 64GB eMMC v5.1
Connectivity	10/100Gbps + WiFi 2.4/5GHz + BT5.0Ethernet
Display	HDMI (v1.4 TYPE-A) MAX Resolution - FHD (1920x1080)
Audio & Mic	60W AMP Speaker, 2-Microphone





Hybrid structure plastic lenses provides better form factor, power consumption, solid durability, thickness and image quality enabling next-level AR experiences.



Simple & Compact

Slim design compared to market products. Light weight of 80g range



Directional Sound Design

Sound quality of open ear type ear-phone.



High Contrast & Resolution

Brighter and clearer image than any other optical system.

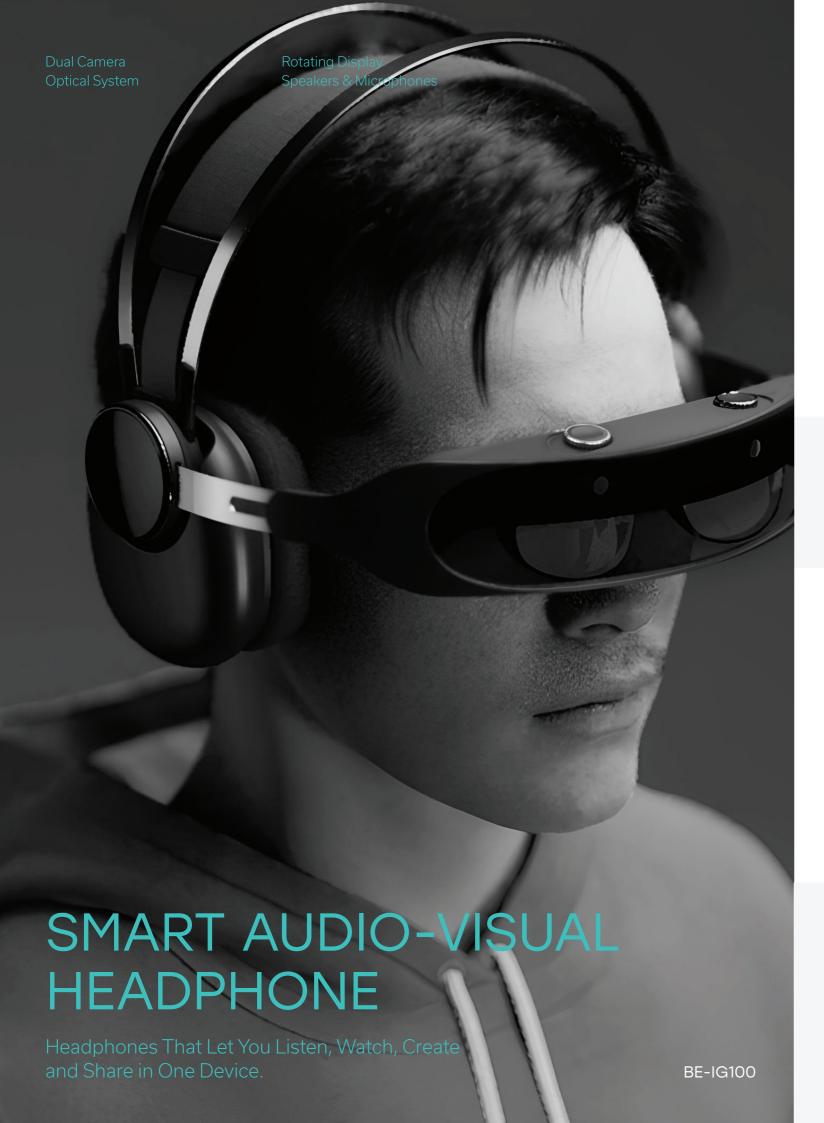


Next Level of Image Quality

Designed to display as up to 45 degrees of diagonal Field of View (FoV). 100 inch view.



Lens	LetinAR Pin-tilt type
Display	Micro OLED
Resolution	1920 * 1080 (per eye)
FOV	45°
Contrast	1:1000
Max Brightness	1000 nits
SoC	STM32L422(MCU), LT7211B(DP2LVDS)
Audio	CM6533N chip, 2 channel micro-speaker
Function	Proximity sensor, Volume/Brightness control
Connection	USB-C





#### Speakers & Microphones

- · Clear sound through ultrahigh resolution speakers
- High-fidelity sound capture through dual microphones on both sides

#### Optical System

- Clear image quality of FHD OLED Micro display
- · Wide field of view of about 50 degrees
- · Birdbath optical system with high light efficiency

#### **Rotating Display**

- Display band above the user's head, rotating down in front of the eyes
- Delivering a fully immersive audiovisual experience, anytime, anywhere

#### **Dual Camera**

- Two cameras, one on each side
- Capturing and sharing
   3D content in real-time

Perisphere wirelessly integrates all audio and visual functions of connected smart devices.



to Perisphere's Displays & Speakers

Input

from Perisphere's Cameras & Microphones

#### Use Case



Perisphere offers premium headphone quality and can be used solely as headphones.



Watch & Play
It also serves as a multi-sensory device
for streaming OTT content and playing
games.



#### Create & Share

It functions as a 3D action camera for capturing and sharing real-time with ease.



Visual Output

Left and right transparent displays of birdbath optics

Visual Input

Left and right cameras above the displays

Audio Output

Left and right speakers

Audio Input

Left and right microphones

Network

Bluetooth for audio input & output,
Wi-Fi Direct for video input & output

Control

Touchpad on the ear cover surface

Charge

USB-C port

## **BUMJIN GROUP**

Challenge and Innovation

Company At Glance

\$400+ MILLION

Million Sales Revenue Yr. 2023

100% IN-HOUSE

Vertical integration facility for audio product

8 FACILITIES

Across manufacturing bases in global

80% OVER

**Automation lines** 

Company	Bumjin Co., Ltd.
Found	1st. October, 1991
Chairman	Jung-Kil Park
HQ	217, Saneop-Ro 155 Beon-Gil, Gwonseon-Gu, Siwon-Si, Gyeonggi-Do
Business	Consumer Electronics (Audio Product, Speaker Unit, IT Product etc.), Mold Manufacturing, Injection, etc.
Employee	3,565 (Include Global Manufacturing Base)
Subsidiary	Korea, China, Vietnam, Indonesia, Hungary, Mexico





#### A. Korea (Suwon)

Core Business R&D, Sales, Admin Size 8,316m²



#### B. China (Huizhou)

Product Spk Unit Size 5,640m<sup>2</sup>



#### C. Indonesia

Product TV Spk, Car Parts
Size 31,503m<sup>2</sup>



#### D. Vietnam (Quang Ninh)

Product Audio Set, Sound Bar Size 49,195m<sup>2</sup>





#### 1. Korea (Suwon)

Core Manufacturing mold,
Business Mold design
Size 6,186m<sup>2</sup>



#### 2. Korea (Ansung)

Product Injection Parts (Car, VD, etc.)

Size 24,250m²



#### 3. Hungary (Heredi)

Product Injection Parts (Home Appliances)

Size 45,048m²



#### 4. Mexico (Tijuana)

Product Injection Parts (Home Appliances)

Size 37,500m<sup>2</sup>





#### 5. Vietnam (Quang Ninh)

Product Injection Parts (TV TOC, Soundbar, Audio)

Size 30,000m<sup>2</sup>

# BRING HAPPINESS TO THE CUSTOMERS

Like in the past when we reached our goals, deemed by others to be impossible, Bumjin will incessantly step towards the future. Moreover, Bumjin will strive to be a company that not only pursues profits but one that contributes to the global society as well.



#### **ESTABLISHMENT**

**Business Foundation** 

#### 1991

Established Bumjin Industrial

#### 1992

Registered as a Samsung Electronics Approved Company

#### 2005

Established Bumjin Industry's Injection Business division

#### 2007

Receiving Certificate of Bumjin Industry's Annexed R&D Center

#### 2008

Established Tianjin Bumjin in China (for Large Injection)

#### 2009

Established Bumjin Hungry

#### 2010

Established Bumjin Indonesia (PT)

#### **GROWTH**

World-class Production Capacity

#### 2011

Awarded \$5M Top Export Company

#### 2013

Established Suwon Factory

#### 2014

Establishment of Hungary Bumjin Electronics

#### 2015

Launch House Brand "Tonn" Speaker

#### 2016

53th Trade Day Awarded the Trophy \$ 30 Million Export

#### 2017

Construction of New Bumjin Headquarters Building

#### 2018

Established Bumjin America (for Large Injection)

#### LEAP

New Business and Market Development

#### 2018

Established Multi Media R&D Lab (Develop for Sound bar)

#### 2019

Established Bumjin Vietnam

#### 2020

Begin production in Vietnam

#### 2023

Produce AV Receiver

#### **VISION 2025**

Bumjin grows through the companionship of customers and our staffs.

#### **Creative & Life**

Always by your side, Bumjin Electronics

- Professional ODM, OEM, EMS
- · Sound Bar
- · Al Speaker
- · AV Receiver
- · Smart Glass
- · All kinds of audio product

#### A Partner For Your Life Style

Every moment in your life

#### топп

Interior Mud Light Bluetooth Speaker, Smartphone Charger, LED Stand Bluetooth Speaker

#### · arion

Vacuum Tube Amplifier, Hi-End Speaker, — Mini Hi-Fi Component, Al Agent



House Brand

#### **Business Area**



Startup
Support Program

#### **Customer Satisfaction**

High-value and high-tech solutions to the customers

- General Injection Molding
- · Special Injection Molding (High gloss, double-shot injection, etc.)
- · High-Value and High-Tech Mold/Molding Solutions

#### Start, Build, Grow Together

Bumjin supports your ideas

- $\cdot \ \ \text{comprehensive production support}$
- · Mold Creation / Injection Molding
- Assembly / Production of Finished Products
  - In advanced product developments incorporating future technologies

# INNOVATION, LIFE IN FOCUS

Creating bundant values through continuous challenges and innovations.









Product Video