GUI-SOUND ELECTRONICS

AUTOMOTIVE SPEAKER SOLUTIONS

OEM / ODM PRODUCT CATALOG 2026

Advanced glass and magnesium-lithium two-way systems for application-specific acoustic development.

GC-26 | GLASS TWO-WAY SERIES

FULL-GLASS COMPONENT SPEAKER SYSTEM

ML-26A | MGLi TWO-WAY SERIES

MAGNESIUM-LITHIUM COMPONENT SPEAKER SYSTEM

FULL-GLASS DIAPHRAGM PRODUCTS USED IN CUSTOMER HI-RES AUDIO CERTIFICATION PROGRAMS, WITH ACOUSTIC PERFORMANCE VALIDATED

SINCE 1991	CUSTOM DEVELOPMENT	QUALITY VALIDATION	SCALABLE PRODUCTION

D-U-N-S® REGISTERED | 66-928-3959 | ENGINEERING SOUND. EMPOWERING BRANDS.

COMPANY PROFILE

Engineering Sound. Building Long-Term Partnerships.

GUI-SOUND ELECTRONICS INDUSTRIAL COMPANY LIMITED is the Hong Kong customer-facing entity within our speaker business. Working with Guide-Sound Electronics' Dongguan manufacturing operation, we support customers from acoustic concept and component selection through prototyping, validation and mass production.

Established in 1991, our technical roots in Hi-Fi loudspeaker development continue to shape our work in automotive audio, home audio, smart devices, laptops, headphones and customized speaker modules.

SINCE 1991	4,900 m² SITE AREA	8,000 m² TOTAL GROSS FLOOR AREA	500+ PROFESSIONALS	>1M UNITS / MONTH
Speaker engineering	Dongguan operations	Production facilities	Engineering and production	Published capacity

Our B2B Commitment

OEM/ODM DEVELOPMENT Application-driven design based on acoustic, mechanical, electrical and commercial targets.

QUALITY VALIDATION Structured prototype review, acoustic testing and project-specific approval controls.

MATERIAL OPTIONS Full-glass, glass-fiber coaxial, woven and magnesium-lithium diaphragm constructions.

GLOBAL PROGRAM SUPPORT Flexible documentation and supply-chain planning for international customers.

D-U-N-S® REGISTERED GUI-SOUND D-U-N-S® Number 66-928-3959; registration valid May 12, 2026 to May 11, 2027.

AUTOMOTIVE PORTFOLIO

Choose the Right Architecture

Representative platforms can be adapted by size, impedance, power, material, mounting and target response.

Architecture	What the customer gains	Representative models
Single Driver	Flexible building block for door, dashboard, center-channel or multi-way integration.	FR165B4-41M / FR165B4-42M / UR91B4-18F / UR91B4-17F
Coaxial	Broad-band reproduction from one mounting position with simplified installation.	FR165B4-18C / FR165B4-19C
2-Way Component	Independent woofer and tweeter placement for better staging and crossover control.	GC-26 / ML-26A
3-Way Component	Dedicated low-, mid- and high-frequency drivers for premium tuning flexibility.	GC-236

Quick Selection Guide

Model	Type	Nominal Z	Rated Power	Sensitivity	Key Material
FR165B4-18C	Coaxial	4 ohm	50 W	88.0 dB	Glass fiber
FR165B4-19C	Coaxial	4 ohm	50 W	88.0 dB	Kevlar® aramid
FR165B4-41M	Midwoofer	4 ohm	30 W	87.7 dB	Full glass
FR165B4-42M	Midwoofer	4 ohm	50 W	89.5 dB	Mg-Li
UR91B4-18F	Mid / full-range	4 ohm	15 W	81.7 dB	Full glass
UR91B4-17F	Mid / full-range	4 ohm	50 W	85.5 dB	MGLi
GC-26	2-way	4 ohm	60 W woofer	87 / 89 dB	Full glass
ML-26A	2-way	4 ohm	60 W woofer	88.2 / 89 dB	Mg-Li
GC-236	3-way	4 ohm	60 W woofer	System-specific	Full-glass diaphragms

6.5-INCH COAXIAL SPEAKER

FR165B4-18C

A glass-fiber coaxial platform designed for broad-band in-car sound with practical power handling.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Coaxial	4 ohm	50 W	88.0 dB/W/m

Frequency Range	70 Hz to 40 kHz
Music Power	75 W
Resonance / Fs	70.2 Hz
Linear Excursion	4.0 mm
Materials	Aluminum frame; glass-fiber cone; NBR surround; CONEX damper
Motor / Voice Coil	25 mm voice coil; 80 x 32 x 15 mm Y30 magnet

Why It Stands Out

BROAD-BAND COAXIAL ARCHITECTURE Combines mid-bass and high-frequency reproduction in a space-efficient format.

RIGID, LIGHTWEIGHT DIAPHRAGM Glass-fiber construction supports detail and controlled breakup behavior.

PRACTICAL OEM PLATFORM A balanced starting point for door and rear-deck speaker programs.

BEST FIT Entry-to-mid-tier OEM or aftermarket coaxial systems requiring extended bandwidth in a standard 6.5-inch format.

6.5-INCH HIGH-POWER COAXIAL SPEAKER

FR165B4-19C

A Kevlar® aramid-fiber coaxial platform combining a larger voice coil with controlled, dynamic reproduction.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Coaxial	4 ohm	50 W	88.0 dB/W/m

Frequency Range	60 Hz to 40 kHz
Music Power	100 W
Resonance / Fs	59.9 Hz
Linear Excursion	3.5 mm
Materials	Aluminum frame; Kevlar® aramid-fiber woven cone; NBR surround; CONEX damper
Motor / Voice Coil	35 mm voice coil; 90 x 45 x 18 mm Y30 magnet

Why It Stands Out

HIGHER PEAK POWER CAPACITY The 35 mm voice coil supports more demanding listening levels than the lighter coaxial platform.

KEVLAR® WOVEN DIAPHRAGM Its high strength-to-weight ratio and useful damping support clean transients, controlled cone behavior and stable detail at higher listening levels.

EXTENDED UPPER BANDWIDTH The coaxial layout supports a compact, full-spectrum installation.

BEST FIT Upgraded coaxial systems for customers prioritizing stronger output, robust construction and a distinctive cone appearance.

6.5-INCH FULL-GLASS MIDWOOFER

FR165B4-41M

A cast-aluminum-frame midwoofer platform engineered for stable mid-bass and midrange reproduction.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Single driver	4 ohm	30 W	87.7 dB/W/m

Frequency Range	51 Hz to 10 kHz
Music Power	50 W
Resonance / Fs	51.4 Hz
Linear Excursion	3.5 mm
Materials	Cast aluminum frame; full-glass cone; rubber surround; black CONEX damper
Motor / Voice Coil	38 mm voice coil; 90 x 45 x 17 mm Y30 magnet

Why It Stands Out

HIGH-RIGIDITY FULL-GLASS CONE Resists unwanted flexing to support fast transient response, clear detail and a clean, precise tonal character.

BALANCED MID-BASS RESPONSE A 51 Hz low-frequency reference point gives system designers useful tuning flexibility.

COMPONENT-SYSTEM READY Designed to pair with a separate tweeter and project-specific crossover network.

BEST FIT Two-way or three-way systems requiring a stable 6.5-inch midwoofer with a neutral engineering platform.

6.5-INCH MAGNESIUM-LITHIUM MIDWOOFER

FR165B4-42M

A high-sensitivity metal-cone platform combining low resonance with a refined, premium material story.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Single driver	4 ohm	50 W	89.5 dB/W/m

Frequency Range	45 Hz to 10 kHz
Music Power	75 W
Resonance / Fs	45.3 Hz
Linear Excursion	3.5 mm
Materials	Cast aluminum frame; magnesium-lithium cone; rubber surround; black CONEX damper
Motor / Voice Coil	38 mm voice coil; 90 x 45 x 17 mm Y30 magnet

Why It Stands Out

PREMIUM LIGHTWEIGHT METAL CONE Magnesium-lithium construction offers a compelling stiffness-to-mass platform for detailed reproduction.

HIGH REFERENCE SENSITIVITY The measured 89.5 dB/W/m supports efficient acoustic output.

LOWER RESONANCE PLATFORM A 45.3 Hz Fs provides useful headroom for mid-bass system tuning.

BEST FIT Premium component systems where diaphragm technology, sensitivity and clean industrial design support product differentiation.

3.5-INCH COMPACT MIDRANGE / FULL-RANGE DRIVER

UR91B4-18F

A compact full-glass-cone driver using a dual neodymium motor for space-constrained automotive locations.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Single driver	4 ohm	15 W	81.7 dB/W/m

Frequency Range	102 Hz to 20 kHz
Music Power	20 W
Resonance / Fs	102.4 Hz
Linear Excursion	1.5 mm
Materials	Cast aluminum frame; full-glass cone; NBR surround; black CONEX damper
Motor / Voice Coil	16.4 mm KAP voice coil; dual N42 neodymium magnets

Why It Stands Out

HIGH-RIGIDITY FULL-GLASS CONE Resists unwanted flexing to support fast transient response, clear detail and a clean, precise tonal character.

COMPACT INSTALLATION ENVELOPE Suitable for dashboard, center-channel and distributed cabin locations.

HIGH-ENERGY NEODYMIUM MOTOR A dual-magnet configuration supports output while controlling package size.

BEST FIT Dashboard, center-channel and compact full-range applications where mounting depth and motor size are critical.

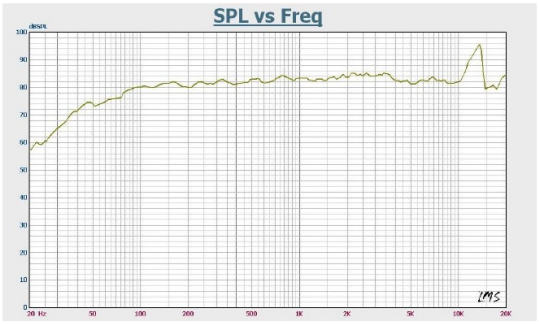
3.5-INCH MGLI MIDRANGE / FULL-RANGE DRIVER

UR91B4-17F

A compact magnesium-lithium-cone driver combining high sensitivity, useful power handling and a dual-neodymium motor.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE



Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
Single driver	4 ohm	50 W	85.5 dB/W/m

Frequency Range	83 Hz to 20 kHz
Music Power	75 W
Resonance / Fs	83.5 Hz
Linear Excursion	1.0 mm
Materials	Cast aluminum frame; magnesium-lithium (MGLi) cone; NBR surround; CONEX/cotton damper
Motor / Voice Coil	25.5 mm KAP voice coil; N35 dual-neodymium magnet system

Why It Stands Out

MAGNESIUM-LITHIUM DIAPHRAGM The lightweight MGLi cone provides a premium stiffness-to-mass platform for detailed reproduction.

HIGH-POWER COMPACT FORMAT A 50 W rated input provides useful headroom for dashboard, center-channel and compact multi-way applications.

DUAL-NEODYMIUM MOTOR The compact N35 motor architecture supports output while preserving installation flexibility.

BEST FIT Premium compact midrange, center-channel and full-range applications where diaphragm technology and power density support product differentiation.

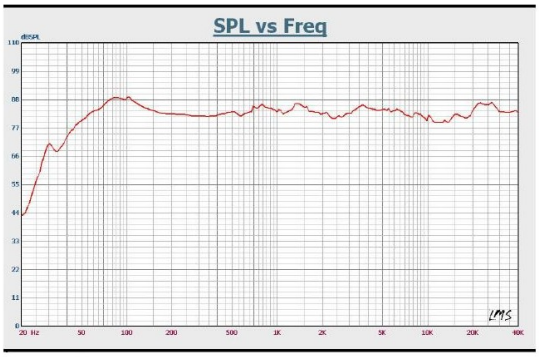
2-WAY COMPONENT SPEAKER SYSTEM

GC-26

A matched full-glass-cone woofer and separate tweeter system for flexible placement and focused soundstage design.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE



Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
2-way component	4 ohm	60 W woofer	87 dB woofer / 89 dB tweeter

Frequency Range	Woofer: 50 Hz to 7 kHz; tweeter: 1.3 kHz to 45 kHz
Music Power	90 W woofer
Resonance / Fs	50.6 Hz woofer
Linear Excursion	2.5 mm woofer
Materials	Aluminum woofer frame; full-glass cone; NBR surround; CONEX/cotton damper
Motor / Voice Coil	38 mm KAP woofer coil with N35 magnet; 25 mm ASV tweeter coil with N38 magnet

Full-Glass Diaphragm Advantages

HIGH SOUND VELOCITY AND WIDE BANDWIDTH Ultra-thin glass supports fast vibration transmission and extended piston behavior, helping reproduce a broad frequency range with precise response.

LIGHTWEIGHT AND HIGHLY RIGID A thin, low-mass structure combines high rigidity with rapid attack, helping suppress breakup and preserve fine detail.

BALANCED INTERNAL DAMPING Higher internal loss than conventional metallic diaphragms shortens unwanted reverberation and supports clean, natural high-frequency reproduction without a sharp metallic character.

STABLE MATERIAL PERFORMANCE Glass offers strong resistance to temperature, humidity and long-term material change, supporting consistent performance across demanding applications.

HI-FI DEVELOPMENT GUI-SOUND has also developed full-range Hi-Fi speaker platforms using full-glass diaphragms.

BEST FIT Component speaker programs that need flexible installation, a separate high-frequency source and customer-specific tuning.

2-WAY MAGNESIUM-LITHIUM COMPONENT SYSTEM

ML-26A

A premium two-way concept extending magnesium-lithium diaphragm technology across both woofer and tweeter.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
2-way component	4 ohm	60 W woofer	88.2 dB woofer / 89 dB tweeter

Frequency Range	Woofer: 40 Hz to 5 kHz; tweeter: 1.3 kHz to 30 kHz
Music Power	90 W woofer
Resonance / Fs	40.6 Hz woofer
Linear Excursion	5.0 mm woofer
Materials	Aluminum frames; magnesium-lithium woofer and tweeter diaphragms; NBR surround
Motor / Voice Coil	38 mm woofer coil with Y30 magnet; 25 mm ASV tweeter coil with N38 magnet

Key Features

ULTRA-LIGHTWEIGHT With an approximate density of 1.3-1.6 g/cm^3, magnesium-lithium is among the lightest structural metals. Its low mass supports rapid diaphragm response and high sensitivity.

HIGH STIFFNESS AND DIMENSIONAL STABILITY High specific stiffness and strength help suppress breakup modes and unwanted resonances during high-frequency or high-dynamic operation.

EXCELLENT INTERNAL DAMPING Compared with conventional metallic diaphragm materials such as aluminum or titanium, magnesium-lithium provides higher internal loss, dissipating vibration energy more quickly and reducing objectionable metallic ringing.

Sound Performance

CLEAN, NATURAL REPRODUCTION Natural high-frequency extension and rich detail without an overly hard or sharp metallic character.

OPEN, TRANSPARENT SOUNDSTAGE Accurate reproduction of micro-dynamics, spatial ambience and transient definition creates a more open and transparent presentation.

BEST FIT Premium automotive audio programs seeking distinctive materials, deeper mid-bass capability and a strong technology narrative.

3-WAY COMPONENT SPEAKER SYSTEM

GC-236

A complete woofer, compact midrange and tweeter platform for higher-resolution cabin sound system development.

PRODUCT PHOTO

MEASURED FREQUENCY RESPONSE

Configuration	Nominal Impedance	Rated Input	Reference Sensitivity
3-way component	4 ohm	60 W woofer	87.6 dB woofer / 79.3 dB mid / 89 dB tweeter

Frequency Range	Woofer to 10 kHz; mid to 20 kHz; tweeter to 45 kHz
Music Power	90 W woofer
Resonance / Fs	System drivers individually characterized
Linear Excursion	3.5 mm woofer / 1.5 mm mid
Materials	Cast aluminum woofer and midrange frames; full-glass diaphragms; rubber/NBR surrounds; CONEX dampers
Motor / Voice Coil	38 mm woofer coil; 16.4 mm midrange coil with dual N42 magnets; 25 mm tweeter coil

Why It Stands Out

TRUE THREE-WAY DESIGN FLEXIBILITY Dedicated low-, mid- and high-frequency drivers allow more precise staging and crossover control.

HIGH-RIGIDITY FULL-GLASS DIAPHRAGMS Resist unwanted flexing to support fast transient response, clear detail and a clean, precise tonal character.

SCALABLE PROJECT PLATFORM Driver materials, crossover points, cosmetics and mounting interfaces can be optimized for the target program.

BEST FIT Premium aftermarket or OEM-style multi-way systems requiring dedicated vocal clarity, high-frequency extension and tunable staging.

CHARACTERIZATION, RELIABILITY & QUALIFICATION SUPPORT

Measured Data. Disciplined Validation.

In-house instruments turn customer targets into traceable engineering data, test baselines and corrective actions.

PERFORMANCE CHARACTERIZATION

Our anechoic chamber, CLIO, LMS and Audio Precision systems, together with two signal-generator and power-amplifier sets, support frequency response, SPL, impedance, F0/resonance, polarity, distortion/noise, sample comparison and application-specific tuning.

COMPONENT-LEVEL CONTROL Spider displacement and cone/dome F0 inspection help control critical suspension and diaphragm variation before system validation.

RELIABILITY VALIDATION

Two temperature-and-humidity chambers, one vibration tester, two salt-spray testers and one drop tester support agreed environmental and mechanical profiles. Pre- and post-test acoustic and electrical baselines help identify performance drift and failure modes.

ALT & UL QUALIFICATION SUPPORT We translate project or standard requirements into test plans, review materials and construction, prepare traceable samples and records, diagnose failures, implement corrective actions and re-test before submission to an authorized third-party laboratory.

These in-house capabilities improve readiness for demanding Accelerated Life Testing (ALT) and UL programs. Formal certification remains subject to the applicable standard and authorized laboratory evaluation.

OEM / ODM

From Customer Brief to Mass Production

A clear development path helps align acoustic performance, reliability, cost and timing.

01 Define the Application

Vehicle location, mounting envelope, impedance, power, target response, environment and annual volume.

02 Engineer the Concept

Select driver architecture, diaphragm, surround, voice coil, magnet system and cost direction.

03 Prototype and DFM

Prepare drawings and samples; review tooling, assembly, tolerances, terminals, cosmetics and manufacturability.

04 Validate Performance

Confirm frequency response, impedance, sensitivity, power handling and agreed reliability requirements.

05 Pilot Production

Verify process controls, inspection criteria, packaging and project-specific quality documentation.

06 Mass Production

Release approved specifications and control plans, then manage production and delivery.

Start With Your Product Brief

COMPANY & BRAND Please share your company and brand name, target market and current stage of development.

APPLICATION SCENARIO Describe the intended product, installation environment, user experience and use case - for example an interactive display, Bluetooth speaker, fire alarm system, vehicle cabin or Hi-Fi application.

KEY REQUIREMENTS Provide the available product photos, drawings or mounting envelope together with target size, impedance, power, frequency response, SPL, interface, reliability or compliance needs, forecast, target cost and project timing.

How Our Team Supports Your Program

Once we receive the brief, our PM and engineering team will review the application, align technical and commercial priorities, and recommend the most suitable existing product or a customized development route.

With nearly four decades of development experience, we have supported the mass-production development of classic products for established brands across Europe, North America, Japan and Korea. Our experience includes drivers for interactive displays and Bluetooth speakers, passive radiators, fire alarm speakers, and classic American Hi-Fi DIY loudspeaker programs.

Beyond delivering reliable, high-quality mass production for major brands, we are equally committed to helping early-stage brands grow. Our rigorous quality standards and continuing research into specialized diaphragm materials are intended to bring customers more innovative solutions and a more confident, collaborative sourcing experience.

MANUFACTURING & QUALITY CONTROL

Controlled Processes. Consistent Output.

Project-specific controls align materials, assembly, acoustic performance, appearance and packaging with the approved specification.

Control Stage	Typical Project Controls
Incoming Materials	Check material identity, key dimensions, appearance and project-specific requirements.
Process Control	Monitor assembly parameters, workmanship and critical dimensions according to approved instructions.
Acoustic Inspection	Verify impedance, polarity, abnormal noise and frequency response according to the agreed inspection plan.
Final Inspection	Confirm appearance, labeling, packaging and quantity against the approved project criteria.
Project Documentation	Maintain approved specifications, sample baselines and inspection records required by the program.

Production Support

PROTOTYPE TO PILOT Transfer approved drawings, samples and inspection criteria into a controlled pilot build.

PROJECT-SPECIFIC CONTROLS Define work instructions and checkpoints around the customer's product and quality requirements.

PACKAGING & DELIVERY Confirm protective packaging, labeling and shipment requirements before mass-production release.

LET'S BUILD THE RIGHT SPEAKER FOR YOUR APPLICATION

Share your target size, impedance, power, acoustic response, mounting constraints and annual volume. Our team will recommend a suitable platform or develop a customized solution.

GUI-SOUND ELECTRONICS INDUSTRIAL COMPANY LIMITED

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Manufacturing Base	No. 148, Xinyuan 1st Road, Songbailang Industrial Zone, Dongguan, Guangdong, China
Business Scope	Speaker design, OEM/ODM development and manufacturing

Click here to view the online D-U-N-S® Registered™ Profile
Gui-Sound Electronics Industrial
Company Limited

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HONG KONG HEADQUARTERS | GUIDE-SOUND DONGGUAN MANUFACTURING

Professional Audio Solutions Since 1991

Specifications in this catalog are representative and may be customized. Final performance, materials and tolerances are governed by the approved project specification.