

Bluetooth Speakers Specification Sheet

11 models · Eleven platforms from a 78mm metal puck to a 15W karaoke column · Shenzhen Fresh Lemon Electronic Technology Co., Ltd

Fresh Lemon has built portable Bluetooth speakers since 2015. The eleven models here cover four distinct jobs: pocket speakers, rated outdoor speakers, desk and bedside clock radios, and one large-format party unit.

Output runs from 3W to 15W. Chipsets in the range include CSR V4.0, RDA V4.2 + EDR, Actions V4.2 + EDR, BK V4.1 + EDR, JieLi V2.1 + EDR and Jianrong V3.0 + EDR, and models including BS01 and BS100 carry a stated 12 month warranty.

Figures are taken from our own specification records. Values shown as TBC are not on record and are confirmed in writing at order.

Models in this document

Model	Category	Headline specification
FL-M39F Fabric Covered Bluetooth Speaker 5W	Bluetooth Speakers	3 inch driver, 5W, 1200mAh, Bluetooth 4.2 + EDR
BS01 Metal Mini Bluetooth Speaker With Line-In	Bluetooth Speakers	78mm aluminium puck, 3.2W, 600mAh, 12 month warranty
BS100 IPX5 Outdoor Bluetooth Speaker 1200mAh	Bluetooth Speakers	115 x 58 x 40mm, 3W, water resistant, green or blue
D28F Hanging Outdoor Bluetooth Speaker With Carabiner	Bluetooth Speakers	5W from a 1.75 inch driver, IPX5, 800mAh, clips to a bag
PL-B006 LED Flash Bluetooth Speaker With TF Card Slot	Bluetooth Speakers	Ten light modes that beat with the music, 4W, IPX-free party unit
FL-B010 Portable Karaoke Speaker 15W With 360 Degree Sound	Bluetooth Speakers	Twin drivers, 8000mAh of cells, DSP bass and a leather strap
FL-B003 Dual Passive Radiator Bluetooth Speaker IPX5	Bluetooth Speakers	97 x 76 x 32mm, 3.5W, passive radiators either side for bass
FL-B009 Wooden Bluetooth Speaker With FM Radio And Alarm Clock	Bluetooth Speakers	7W from a 3 inch driver in a wood case, with a large LED screen
D9 Slim Pocket Bluetooth Speaker 4W	Bluetooth Speakers	92 x 80 x 32mm in Black, Grey and Green
M59 Stereo Bluetooth Speaker With Built-In Power Bank	Bluetooth Speakers	Two 1.5 inch drivers at 3W each, 3000mAh, 6 to 7 hours of play
L9 Stereo Desktop Bluetooth Speaker With FM Radio And Clock	Bluetooth Speakers	Two 1.75 inch drivers at 4W each, LED screen, alarm clock



FL-M39F Fabric Covered Bluetooth Speaker

5W

Bluetooth Speakers · 3 inch driver, 5W, 1200mAh, Bluetooth 4.2 + EDR

FL-M39F is the fabric-wrapped model in the range. A 3 inch driver behind a woven cover gives it more low end than the plastic-grille speakers of the same size, and the 190 x 56.5 x 92mm body sits on a shelf like a piece of furniture rather than a gadget.

It runs an RDA V4.2 + EDR chipset at 5W from a 1200mAh cell, charged at 5V/500mA. Packaging is a colour box or customised carton to your artwork.

Specifications

Specification	Value
Model	FL-M39F
Dimensions	190 × 56.5 × 92mm
Bluetooth Chipset	RDA V4.2 + EDR
Driver Size	3 inch
Output Power	5W
Battery	1200mAh
Input	5V / 500mA
Packaging	Colourful package or customised box
Branding	Fresh Lemon or OEM

Key benefits

A 3 inch driver in a portable body. Bass you can hear across a room, which 1.5 inch speakers cannot deliver.

Fabric finish. A textile cover reads as a home-audio product rather than a giveaway, and takes a woven brand label well.

Bluetooth 4.2 + EDR. A stable link at normal room distances with lower power draw than older chipsets.

Simple geometric shape. A clean rectangular form that photographs well and stacks efficiently in a carton.

Customisation

- Fabric colour and weave selected per order
- Woven label, print or metal badge branding
- Colour box or customised packaging to your artwork
- Own-brand manual and insert card

Web page: szfreshlemon.com/products/fl-m39f.html



BS01 Metal Mini Bluetooth Speaker With Line-In

Bluetooth Speakers · 78mm aluminium puck, 3.2W, 600mAh, 12 month warranty

BS01 is a 78mm metal puck, 34mm deep, machined rather than moulded, in Red, Gold, Silver and Black. It is the model buyers pick when the gift has to feel solid in the hand.

Specification is 3.2W from a 600mAh cell on a 2.1 + EDR chipset, with line-in support for devices that have no Bluetooth. Warranty is 12 months, and it is supplied as Fresh Lemon or under your own brand.

Specifications

Specification	Value
Model	BS01
Brand	Fresh Lemon or OEM
Bluetooth Chipset	V2.1 + EDR
Output Power	3.2W
Battery	600mAh
Input	5V / 500mA
Dimensions	Φ78 × 34mm
Colours	Red, Gold, Silver, Black
Warranty	12 months
AUX Line-in	Support
Branding	Fresh Lemon or OEM

Key benefits

Metal body, not plastic. Weight and a machined finish do more for perceived value than any amount of printing.

Four anodised colours. Red, Gold, Silver and Black, so a range can be built from one tooling.

Line-in as well as Bluetooth. Works with older laptops, in-flight entertainment and anything with a headphone jack.

12 month warranty. Stated warranty cover, which matters when the unit carries a client's brand.

Customisation

- Red, Gold, Silver or Black anodised finish
- Laser engraving or print on the top face
- Colour box, tin or customised gift packaging
- Supplied as Fresh Lemon or fully OEM branded

Web page: szfreshlemon.com/products/bs01.html

BS100 IPX5 Outdoor Bluetooth Speaker

1200mAh

Bluetooth Speakers · 115 x 58 x 40mm, 3W, water resistant, green or blue

BS100 is the outdoor mini: 115 x 58 x 40mm, rated IPX5 against water spray, running 3W from a 1200mAh cell on a 2.1 + EDR chipset.

It carries a 12 month warranty and supports line-in as well as Bluetooth. Stock colours are green and blue, and the stated delivery time for this model is 30 to 40 days.

Specifications

Specification	Value
Model	BS100
Brand	Fresh Lemon or OEM
Bluetooth Chipset	V2.1 + EDR
Output Power	3W
Battery	1200mAh
Input	5V / 500mA
Dimensions	115 × 58 × 40mm
Delivery Time	30-40 days
Packaging	Colourful package or customised box
Colours	Green, Blue
Warranty	12 months
AUX Line-in	Support
Branding	Fresh Lemon or OEM

Key benefits

IPX5 water resistance. Rain, poolside spray and a sweaty gym bag stop being a problem.

1200mAh in a mini body. Twice the cell of the BS01 puck in a package that still fits a jacket pocket.

Line-in support. Useful where Bluetooth is unavailable or blocked.

12 month warranty. Stated cover on a unit intended for rough handling.

Customisation

- Green or blue housing as standard
- Print or badge branding on the grille face
- Colour box or customised packaging
- Supplied as Fresh Lemon or fully OEM branded

Web page: szfreshlemon.com/products/bs100.html

D28F Hanging Outdoor Bluetooth Speaker With Carabiner

Bluetooth Speakers · 5W from a 1.75 inch driver, IPX5, 800mAh, clips to a bag

D28F is built to hang. A carabiner is part of the product rather than an accessory, so the speaker clips to a rucksack strap, a tent pole or a bike frame and stays there.

It runs 5W from a 1.75 inch driver on a BK V4.1 + EDR chipset, with an 800mAh cell charged at 5V/1A, in a 105 x 95 x 43mm body rated IPX5.

Specifications

Specification	Value
Model	D28F
Brand	Fresh Lemon or OEM
Bluetooth Chipset	BK V4.1 + EDR
Driver Size	1.75 inch
Output Power	5W
Battery	800mAh
Input	5V / 1A
Dimensions	105 × 95 × 43mm
Branding	Fresh Lemon or OEM

Key benefits

Carabiner built in. No separate strap to lose; the speaker attaches to whatever the user is already carrying.

5W from a 1.75 inch driver. Loud enough to be heard outdoors over wind and movement.

IPX5 rating. Rain and spray resistant, which is the point of a speaker that lives outside.

5V/1A charging. A faster input than the 500mA mini speakers in the range.

Customisation

- Housing colour quoted per order
- Print or moulded branding on the face and strap
- Colour box, hang card or customised packaging
- Supplied as Freshlemon or fully OEM branded

Web page: szfreshlemon.com/products/bluetooth-speaker-d28f.html



PL-B006 LED Flash Bluetooth Speaker With TF Card Slot

Bluetooth Speakers · Ten light modes that beat with the music, 4W, IPX-free party unit

PL-B006 is the light show model. Ten flash modes run off the front panel and pulse with the music, which is what makes it sell in a shop window or on a market stall.

It runs 4W from a 1.5 inch driver on a JieLi V2.1 + EDR chipset with a 1200mAh cell, in a 92 x 92 x 45mm cube with a carabiner, and it plays from a TF card as well as over Bluetooth.

Specifications

Specification	Value
Model	PL-B006
Bluetooth Chipset	JieLi V2.1 + EDR
Driver Size	1.5 inch
Output Power	4W
Battery	1200mAh
Input	5V / 500mA
Dimensions	92 × 92 × 45mm
Branding	Fresh Lemon or OEM

Key benefits

Ten LED flash modes. The lighting follows the music, which turns a small speaker into a visual product.

Plays from a TF card. No phone needed, which suits market stalls, kiosks and kids' use.

1200mAh cell. Long enough for an evening rather than an hour.

Carabiner included. Clips to a bag or a tent pole like the D28F.

Customisation

- Housing colour quoted per order
- Print branding on the body and packaging
- Colour box, hang card or customised retail packaging
- TF card preloaded to your specification on request

Web page: szfreshlemon.com/products/bluetooth-speaker-pl-b006.html



FL-B010 Portable Karaoke Speaker 15W With 360 Degree Sound

Bluetooth Speakers · Twin drivers, 8000mAh of cells, DSP bass and a leather strap

FL-B010 is the largest unit in the catalogue: a 138.5 x 120 x 283mm column carrying a 3 inch and a 1 inch driver, 15W of output, and four 2000mAh cells.

It is built as a karaoke and party speaker - 360 degree full room sound, DSP processing for the low end, a fabric-wrapped body and a leather carrying strap, on a CSR V4.0 chipset with a 17V/1A input.

Specifications

Specification	Value
Model	FL-B010
Bluetooth Chipset	CSR V4.0
Driver Size	3 inch + 1 inch
Output Power	15W
Battery	2000mAh × 4
Input	17V / 1A
Dimensions	138.5 × 120 × 283mm
Branding	Fresh Lemon or OEM

Key benefits

15W and 360 degree dispersion. Fills a room rather than pointing at one listener, which is what a party speaker has to do.

Two drivers, 3 inch and 1 inch. A proper two-way arrangement instead of one driver trying to cover everything.

Four 2000mAh cells. The largest battery bank in the range, sized for a whole evening.

Fabric body with a leather strap. Carries like a bag and looks like furniture when it is put down.

Customisation

- Fabric and strap finish selected per order
- Woven label, badge or print branding
- Export carton or customised retail packaging
- Own-brand manual and documentation

Web page: szfreshlemon.com/products/bluetooth-speaker-fl-b010.html

FL-B003 Dual Passive Radiator Bluetooth Speaker IPX5

Bluetooth Speakers · 97 x 76 x 32mm, 3.5W, passive radiators either side for bass

FL-B003 uses two passive radiators to get low end out of a body only 97 x 76 x 32mm. A passive radiator moves with the air the driver pushes, which is how a pocket speaker produces bass it has no room for.

The unit runs 3.5W on an Actions V4.2 + EDR chipset from a 1200mAh cell, and is rated IPX5 against spray.

Specifications

Specification	Value
Model	FL-B003
Bluetooth Chipset	Actions V4.2 + EDR
Driver Size	1.75 inch
Output Power	3.5W
Battery	1200mAh
Input	5V / 500mA
Dimensions	97 × 76 × 32mm
Branding	Fresh Lemon or OEM

Key benefits

Dual passive radiators. Real low end from a pocket-sized enclosure, not an equaliser trick.

IPX5 rating. Spray and rain resistant, so the speaker can live outdoors.

1200mAh in a 97mm body. A long session from a unit that fits a coat pocket.

Bluetooth 4.2 + EDR. A stable modern link with low idle drain.

Customisation

- Housing colour quoted per order
- Print or badge branding on the face
- Colour box, hang card or customised packaging
- Supplied as Fresh Lemon or fully OEM branded

Web page: szfreshlemon.com/products/bluetooth-speaker-fl-b003.html

FL-B009 Wooden Bluetooth Speaker With FM Radio And Alarm Clock

Bluetooth Speakers · 7W from a 3 inch driver in a wood case, with a large LED screen

FL-B009 is a bedside and desk unit built into a wooden case. A large LED screen carries the clock, an alarm is built in and it receives FM radio as well as Bluetooth.

The driver is 3 inch running at 7W - the second most powerful speaker in this catalogue - from a 2000mAh cell charged at 5V/1A, in a 185 x 108 x 108mm cube.

Specifications

Specification	Value
Model	FL-B009
Bluetooth Chipset	Jianrong V3.0 + EDR
Driver Size	3 inch
Output Power	7W
Battery	2000mAh
Input	5V / 1A
Dimensions	185 × 108 × 108mm
Branding	Fresh Lemon or OEM

Key benefits

Wooden case. Timber damps cabinet resonance and gives the product a warmth that plastic cannot fake.

Clock, alarm and FM radio. It earns its place on a bedside table even when nobody is streaming.

7W from a 3 inch driver. Serious output for a bedside unit.

Large LED screen. Readable across a room, which is the point of a bedside clock.

Customisation

- Wood finish and colour selected per order
- Badge, print or engraved branding
- Gift box or customised retail packaging
- Own-brand manual and documentation

Web page: szfreshlemon.com/products/bluetooth-speaker-fl-b009.html



D9 Slim Pocket Bluetooth Speaker 4W

Bluetooth Speakers · 92 x 80 x 32mm in Black, Grey and Green

D9 is the simplest speaker in the range and the one that goes out in the largest quantities. A 1.5 inch driver at 4W, a 600mAh cell and a 92 x 80 x 32mm body in Black, Grey or Green.

There is nothing to explain to the end user, which is exactly what a promotional item needs. It runs on a Jieli V2.1 + EDR chipset and charges at 5V/500mA.

Specifications

Specification	Value
Model	D9
Brand	Fresh Lemon or OEM
Bluetooth Chipset	JieLi V2.1 + EDR
Driver Size	1.5 inch
Output Power	4W
Battery	600mAh
Input	5V / 500mA
Dimensions	92 × 80 × 32mm
Colours	Black, Grey, Green
Branding	Fresh Lemon or OEM

Key benefits

Slim and compact. 32mm deep, so it goes into an event bag without dominating it.

4W from a 1.5 inch driver. Enough for a desk, a kitchen or a hotel room.

Three neutral colours. Black, Grey and Green print cleanly with most corporate marks.

Nothing to learn. Pair and play. No modes, no card slots, no screen.

Customisation

- Black, Grey or Green housing
- Silk-screen or pad print on the face
- Colour box, hang card or bulk export packing
- Supplied as freshlemon or fully OEM branded

Web page: szfreshlemon.com/products/bluetooth-speaker-d9.html



M59 Stereo Bluetooth Speaker With Built-In Power Bank

Bluetooth Speakers · Two 1.5 inch drivers at 3W each, 3000mAh, 6 to 7 hours of play

M59 is the speaker that doubles as a power bank. The 3000mAh lithium polymer cell drives two 1.5 inch drivers at 3W each and also charges a phone, which is a genuinely useful combination on a long day out.

It is a 176 x 69 x 24mm bar with a bass diaphragm, hands-free calling and both Bluetooth and aux input, on a CSR V4.0 chipset. Play time is 6 to 7 hours.

Specifications

Specification	Value
Model	M59
Brand	Fresh Lemon or OEM
Bluetooth Chipset	CSR V4.0
Driver Size	1.5 inch × 2
Output Power	3W × 2
Battery	3000mAh lithium polymer cell, with power bank
Input	5V / 1A
Dimensions	176 × 69 × 24mm
Colours	Gold, Silver, Army green, Dark blue, Brown
Branding	Fresh Lemon or OEM

Key benefits

Speaker and power bank in one. One device to carry, and the phone that feeds the speaker stays charged.

True stereo. Two 1.5 inch drivers at 3W each rather than a single mono driver.

6 to 7 hours of play time. A full day at the beach or on site, not an afternoon.

Hands-free calling. Takes calls without the user reaching for the phone.

Customisation

- Gold, silver, army green, dark blue or brown finish
- Print, badge or engraved branding
- Gift box or customised retail packaging
- Supplied as Freshlemon or fully OEM branded

Web page: szfreshlemon.com/products/bluetooth-speaker-m59.html

L9 Stereo Desktop Bluetooth Speaker With FM Radio And Clock

Bluetooth Speakers · Two 1.75 inch drivers at 4W each, LED screen, alarm clock

L9 is the desktop stereo unit: two 1.75 inch drivers at 4W each in a 185 x 80.3 x 55mm bar, with a high-brightness LED screen, an alarm clock and FM radio.

It runs on a Jianrong V3.0 + EDR chipset from a 2000mAh cell charged at 5V/1A, which makes it a mains-free desk or bedside speaker rather than a pocket one.

Specifications

Specification	Value
Model	L9
Brand	Fresh Lemon or OEM
Bluetooth Chipset	Jianrong V3.0 + EDR
Driver Size	1.75 inch × 2
Output Power	4W × 2
Battery	2000mAh
Input	5V / 1A
Dimensions	185 × 80.3 × 55mm
Branding	Fresh Lemon or OEM

Key benefits

8W of stereo output. Two 1.75 inch drivers at 4W each, the most powerful stereo pair in this catalogue.

Clock and alarm on a bright LED screen. Readable across a desk or a bedroom.

FM radio. Works with no phone connected, which keeps the unit useful all day.

2000mAh cell. Runs away from a socket, unlike most desk clock radios.

Customisation

- Housing colour and finish quoted per order
- Badge, print or engraved branding
- Gift box or customised retail packaging
- Own-brand manual and documentation

Web page: szfreshlemon.com/products/bluetooth-speaker-l9.html