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JBL Charge 6

Product Requirement Document

Document Number: TBC

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		Document Release Record		
Revision	Release Date	Change Description	ECO NO.	Updated by
01 02	2023-04-13 2023-05-15	Initial released version 1 Updated: - Google Fast Pair Service - Removed the "multi-drop proof" requirement Fast Charge out for iPhone 14 Pro		HT Choo HT Choo
03	2023-11-8	Updated: - Tweeter to 1pc. (10W) - Renaming "SoundBoost" to "Playtime Boost", no change in feature - Fast Charge out for iPhone 15 - PVC-Free wirings & cables (Sustainability effort), including USB Charging cable.		HT Choo
04	2023-11-8	Updated: - Being Mono AE package: Removed "Sound direction: Improve soundstage by 30% compared to Charge 5"		HT Choo
05	2024-3-15	Updated: - From IP68 to IP67 - Speaker USB Port to pass RED, IEC 62680-1-3 & IEC 62680-1-2 requirement USB CTC (Type C-to-C) charging cable to pass VW-1 Flame retardant requirement SOP with service replaceable battery with mechanically design-in for future CR for consumer replaceable battery - QSG reference (Go4 QSG) - 3rd party logos required on packaging.		HT Choo

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0.6		Lindated for Catal		
06		Updated for Gate1: - No PVC-Free wirings & cables (Sustainability effort), for RFQ, excluding USB cable 9 colors SKUs		
07		Updated for Gate2: - Supports PVC-Free, including USB cable and strap.		
08		Updated for Gate2: Sustainability: - All material should meet the following sustainability requirements: O PVC-Free O SCS certification O PCF calculation	ng	

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Target and insight

The JBL Charge series has sold more than 14.8 million units for the past 4 years. Of which more than 5.0 million units of Charge 5 alone were shipped in 2022 since its SOP in 2021. We will develop the next generation of Charge series: JBL Charge 6, with the latest Bluetooth v5.4 profile, improved acoustic output power and playtime, and IP67 waterproof and dustproof, featuring the new JBL signature powerline design. It will also use eco-friendly materials like PCR fabric and plastic for speaker body.

Features & Benefits

JBL Pro Sound

- Louder with more powerful drivers (30W Woofer x1 and 10 W tweeter x1)
- External sound benchmark: Refer to Acoustic Competitive benchmark section.
- Internal sound benchmark: Refer to Acoustic Competitive benchmark section.

Designed for portability.

- More stability with new standing feet design
- Light weight ~1kg vs Charge 5's 0.9kg
- **Service r**eplaceable battery design could enable **service personnel** to replace its expired or defective battery easily without compromising its waterproof/dustproof integrity at SOP and mechanically design-in for future CR (Change request) for consumer replaceable battery with minor tooling modifications.

Bluetooth Connectivity

- Bluetooth v5.4 LE Audio profile, can support new features such as Auracast, LC3 and AAC codec.
- Google Fast Pair Service enabled (for all alternative source Bluetooth chipsets)

Battery play time

- Up to 24 hours playtime via Bluetooth

IP67 Waterproof and Dustproof and Drop proof

IP67 waterproof and dustproof

Multi speakers connection

 Auracast for pairing with speakers with the same LE audio platform compatible JBL speakers pairing under Bluetooth range (Boombox 3 Wi-Fi, Boombox 3, Xtreme 4, Charge 5 Wi-Fi, Pulse 5, Flip 7, Clip 5, Go4)

USB charging port

- The speaker comes with dedicated PVC-Free USB Type CTC charging cable for fast charging.
 - 3.0hrs for a full charge
 - o Fast charge-in: 10 mins charging for 1.5hrs play time
 - Fast Charge out for iPhone 15 (Charge 10min for 20% iPhone 15 battery)
- USB port delivers full power output 3A
- USB Port to pass EU RED, IEC 62680-1-3 & IEC 62680-1-2 requirement.

Power supply

Expired or defective battery can be easily replaced by any repairers with common tools.

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JBL Portable APP

- Manage Auracast feature with compatible JBL speakers and speakers using the same LE audio platform
- User can setup L/R channels when two Charge 6 are connected.
- ON/OFF speaker feedback sound
- Able to OTA upgrade Charge 6 (< 2 minutes)
- Speaker renaming
- Multiple EQ pre-sets including Playtime Boost (up by 20% of the standard playtime)

Sustainability:

- All material should meet the following sustainability requirements:
 - o PVC-Free
 - SCS certification
 - PCF calculation

Master Feature List

What's in the box

Reference	Item	Requirement
1	1 x JBL Charge 6	Mandatory
2	1 x USB Type C-C Charging Cable (PVC-Free USB CTC (Type C-to-C) charging cable to pass VW-1 Flame retardant requirement.)	Mandatory
3	1 x Safety sheet & Warranty card (Reference JBL Charge 5 Wi-Fi)	Mandatory
4	1 x Quick start guide (Reference JBL Charge 5 Wi-Fi)	Mandatory
5	1x PVC-Free handle strap (matching color with speaker)	Mandatory

Functional description

Reference	Item	Requirement
1	Bluetooth AVRCP for volume synchronization with smart devices	Mandatory
2	Bluetooth A2DP and SBC codec for streaming	Mandatory
3	Power key <2 second Press to turn product on and off	Mandatory
4	Bluetooth key	Mandatory

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	Short press to enter Bluetooth pairing mode, within 3 mins, maximum 2 mobile devices are able to connect JBL Charge 6 at the same time	
5	Auracast key Short press to enter speaker pairing mode	Mandatory
6	Play/Pause key During music playback: - Short press to play/pause the playback -	Mandatory
7	Volume Keys for Volume Control +/- volume control keys on product to control volume With Bluetooth AVRCP profile the volume will be in sync with the mobile device	Mandatory
8	Rechargeable battery supports up to 24 hours of streaming music playtime at ¼ ROP. It also allows you to charge your external device on the way to keep music rocking all day	Mandatory
9	USB-C port for charging in and charging out external device - When not playing music, maximum total output from USB port is 3A - When playing music, maximum total output from USB port is 1A - For firmware upgrade or service - Connecting with JBL branded PVC-Free USB Charging cable. If Charge 6 's rechargeable battery is out of battery, once USB Charging cable plugged in with a PD adaptor, users should be able to play music immediately.	Mandatory
10	LEDs - Power LED	Mandatory
	 Auracast LED White Blinking – Pairing mode On – speaker connected 	Mandatory

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	- JBL Bluetooth LED ○ White ■ Blinking – Pairing mode ■ On – speaker connected	
11	JBL sound tone feedback for the following functions (same as Charge 5): - On - Off - Bluetooth paring - Auracast pairing (reference Charge 5's PartyBoost) - Maximum Volume - Connection successful	Mandatory
12	Battery indicator (Same as Charge 5) - Go off after 1 min - 5 white LEDs plus 1 red LED	Mandatory

Battery Level Indication Battery Level (Constantly lighting)

5 LEDs	4 LEDS	3 LEDs	2 LEDs	1 LED	1 LED (Red) blinking	No LED
	• • • • •		• • 0 0 0	• 0 0 0 0	* 0 0 0 0	0 0 0 0 0
100-80%	80-60%	60-40%	40-20%	20-10%	10-5%	Less than 5%

Connectivity I/O

Reference	Item	Requirement
1	1 x Power key	Mandatory
2	1 x Bluetooth key	Mandatory
3	1 x Play/Pause key	Mandatory
4	1 x JBL Auracast key	Mandatory
5	2 x Volume key +/-	Mandatory
6	1 x USB C port for charge in & charge out, firmware upgrade and service (USB Port & PVC-Free charging cable to meet RED, IEC 62680-1-3 & IEC 62680-1-2 requirement.)	Mandatory

Bluetooth Feature list

Reference	Item	Requirement
1	Wake up from Bluetooth (within 30 minutes)	Mandatory

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2	A 1	N. A. a. alla I. a. a.
2	Auto-pairing mode	Mandatory
3	Auto re-connect	Mandatory
4	Standby mode (after 30mins AC powered, last for an hour only)	
5	Multi-phone memory (8 devices)	Mandatory
6	Multi-device connection (up to 2 devices)	
7	Tone Feedback (refer to Boombox2)	Mandatory
8	Multi - speaker connection (Auracast, 1 to N)	Mandatory
9	Volume sync and play control	Mandatory
10	Support GATT connection	Mandatory
11	LE audio ready and support multi sources connection	Mandatory
12	Арр	Mandatory
	- Auracast	
	- Renaming	
	- Firmware upgrade	
	- EQ adjustment	

Demo Mode Behavior

Reference	Item	Requirement
1	The product SW should have embedded demo mode.	Mandatory
2	Can enter or exit demo mode by press and hold Play & Mandatory Bluetooth buttons together	
3	 When device in demo mode All buttons are disabled Volume default in max. level Device will power on automatically when plug into power; plug out the power will shut down the device Follow the standard of Smart Audio demo mode behaviors 	Mandatory

Acoustic Performance

Acoustic target

Rated Power Output:

5. 1x30W woofer + 1x10W Tweeter

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Acoustic Competitive benchmark

Brand	Model	Retail price
Sony	SRS-XE300	\$199
JBL	Charge 5	\$179

User Interface

Panel UI

Reference	Control functions	Comments
1	Power	Short press to switch speaker on and off(1 second)
2	Volume up	Turn volume up
3	Volume down	Turn volume down
4	Play/Pause	During music playback: short press to play or pause
		music
5	Bluetooth	Short press to enter pairing mode
6	Auracast	Short press to enter pairing mode

Panel Display

Reference	Indicator Requirements	Comments
1	Battery level LED	5 white LEDs + 1 red LED to show battery level
2	Power LED	White – product is on
3	Bluetooth LED	White Blink – BT Paring mode White On – BT Connected
4	Auracast LED	White blinking – Searching for nearby speakers White on – Speakers connected
5	Volume up	Turn volume up
6	Volume down	Turn volume down

Packaging Requirements

Sales regions and language requirements

Reference	SKU	Gift box Language requirement	QSG Language requirement
1	North America	English French Spanish	English French Spanish

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_	I		
2	EMEA	English	Brazilian Portuguese
	(Also for Brazil,	French	German
	India and Russia)	Spanish	Italian
		German	Dutch
		Italian	Norwegian
		Russian	Finnish
		Brazilian Portuguese	Russian
3	APAC	English	Swedish
		Japanese	Danish
		Korean	Japanese
4	China	Simplified Chinese	Polish
		English	Korean
5	Japan	English	Traditional Chinese
		Japanese	Simplified Chinese
6	India	English	Bahasa
		Follow current standard	Hebrew
7	Brazil	English	
		Follow current standard	

Product should be certified for sales in the following countries.

Reference	SKU	Country of sale
1	North America	North America
		Canada
		Taiwan
2	EMEA	United Kingdom
		France
		Spain
		Germany
		Italy
		Holland
		Portugal
		Norway
		Finland
		Denmark
		Sweden
		Poland
		Hong Kong
		Russia
3	APAC	Indonesia
		Singapore
		Malaysia
		Thailand
		Myanmar
		Vietnam
		Philippines

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		Taiwan
		Korea
		Australia
		New Zealand
4	China	China
5	Japan	Japan
6	Brazil	Brazil
7	India	India

Description

Use environmentally friendly PCR materials with reference to Charge 5 Wi-Fi. In addition, supports PVC-Free, including PVC-Free USB Charging cable and strap.

Packaging Dimensions

Reference to JBL Charge 5, as compact as possible. Follow JBL design and align with other JBL products.

Master Carton Quantity

4 units per master carton

3rd party logos required on packaging.

- 1. Bluetooth v5.4,
- 2. SCS (Scientific Certification Systems),
- FSC Certified,
- 4. Soy-Ink Printing,
- 5. Energy Star Certified

Printed Material requirements

Reference	Туре	Description
1	Quick start guide	Reference Charge 5 & Go4
		(especially for "MULTI-SPEAKER CONNECTION", Auracast)
2	Safety Sheet	Reference Go4
3	Warranty card	Reference Go4

Industrial Design (surface files)

Available in separate document from design lead

Rendering for information (large version shown for reference)

Available in separate document from design lead

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CMF requirements (Color, Material, Finish)

Number of CMF variations required:

- 1. Black
- 2. Blue
- 3. Red
- 4. Purple
- 5. Camouflage
- 6. White
- 7. Pink
- 8. Sand
- 9. Funky Black

Note: (for Customization SKU): Fabric bracket must be interchangeable with all ODM's housing Reference Charge 5: https://www.jbl.com/personalize-lister.html?category=speakers

Market Name

Brand JBL

Market Name Charge 6

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