

SKB Sound Box STB (BFX-UA300)

LED Motion Guideline

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Sound box sound field mode LED

Ver 0.5 | 2020.08.05

Revision history

Ver.	날짜	내용	작성자	비고
0.5	2020.08.05	Sound filed led guide line Draft write	SKB 홍민선	

I. LED definition

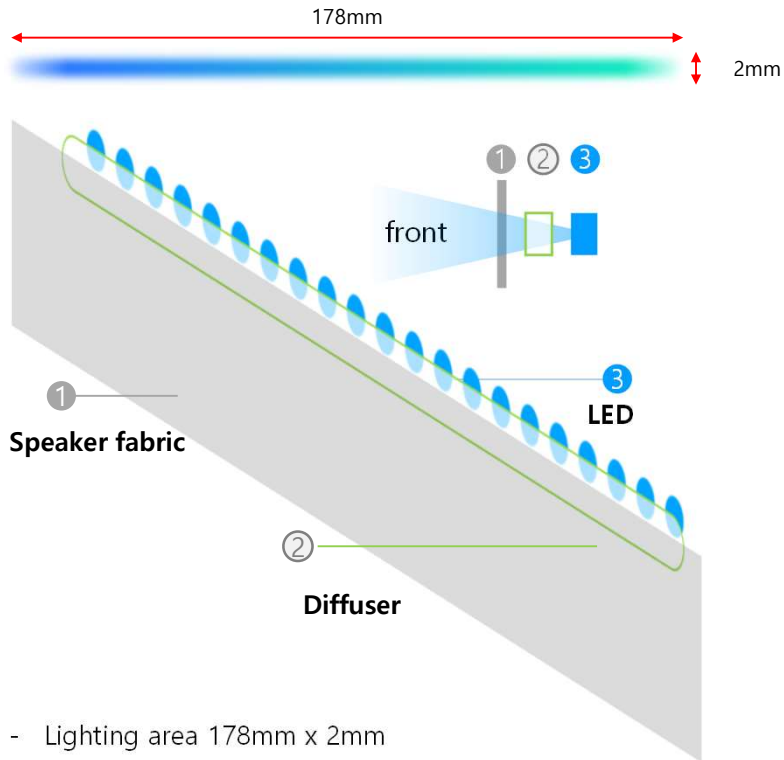
1.1 LED element definition



- 1 B tv x NUGU FFV LED:**
LED indicating Set-top box volume, NUGU volume and NUGU status (full color)
- 2 Google Assistant LED:**
LED indicating Google Assistant Status (full color)
- 3 Set-top box Indicator LED:**
Power + Network + Set-top box Status **Integrated LED** (full color)
- 4 Sound filed mode LED:**
LED showing the mode of the Sound Box specialized sound field mode function (full color)

1.2 Definition of spec for each LED element

1) B tv x NUGU FFV LED



- Lighting area 178mm x 2mm
- RGB color 21ea LED
- Positioned 20mm from the top
- Refer to AI2 STB for motion operation
- Lighting connected smoothly without LED spots
- (See AI2 STB lighting connectivity)

2) Google Assistant LED



* Google Home mini와 최대한 동일하게 구현

- Positioned 30mm from the top
 - Each 3.5mm diameter / 3.5mm spacing
 - RGB color 4ea LED
 - 4 circles exposed as sharply as possible
 - For motion behavior, see Google Nest and Google Home device LED lights
- <https://support.google.com/googlenest/answer/7073219?hl=en>

3) Set-top box Indicator LED



- Positioned 50mm position from top / 3mm diameter
- RGB color 1ea LED
- The circle is exposed as clearly as possible
- See detailed guide for color/motion

4) Sound Field LED



- RGB color 2ea LED
- Placed on the left and right sides

II. Sound box sound field mode LED scenario

2.1 Sound box sound field mode LED-interaction definition

LED State Definition	점등	점멸	소등
	ON	1000ms 점등 - 500ms 소등 TBD 상황 종료까지 반복	OFF

ITEM	Situation	LED	
		Set-top box Indicator LED (RGBW)	Sound field mode LED
1	STB OFF / When the sound output is 'external device'	○ OFF	○ OFF
2	STB booting	● White Blinking	● White Blinking
2-1	[STB active standby mode -> STB normal operation] switching		
2-2	[STB passive standby mode -> STB normal operation] switching		
2-2	Entering sound field mode setting menu (both HW/UI)		
3	STB normal operation (including network normal), sound field mode: Auto	● White ON	● White ON (when the sound field mode is changed from Auto to a specific mode according to the mapping 3-5. enter)
3-1	Sound field mode: manual- Standard	● White ON	● Light Blue ON (If it is possible to control by color temperature, it is 7.000~8.000K based on white)
3-2	Sound field mode: manual- News	● White ON	● Cyan ON (If it is possible to control by color temperature, it is 10000K based on white)
3-3	Sound field mode: manual- Music	● White ON	● Yellow ON (If it is possible to control by color temperature, it is 3.000~4.000K based on white)
3-4	Sound field mode: manual- Movie	● White ON	● Orange ON (If it is possible to control by color temperature, it is ~1.000K based on white) TBD
3-5	Immediately after setting the sound field mode(Transition)	● White ON	Smooth transition from (Previous Color) to (Immediate Color) in a dissolve method for N seconds(transition time TBD).
4	STB network abnormal	● Red Blinking	● Red ON TBD
5	Receiving RCU key (during normal operation of STB)	● White 1 time Blinking	Not applicable (independent of the operation of the set-top box indicator LED)
6	STB Active standby mode	● Green ON	○ OFF
7	STB Passive standby mode	● Blue ON	○ PFF

- Sound field mode LED

- The color works the same as the set-top box status LED, which shows the status of the set-top box,
- It is assumed that a specific color is displayed only in a scenario in which the sound field mode is changed/sound field mode is activated.

- Interaction color TBD
- Overall color can be adjusted after implementation

2.2 SoundBox sound file mode LED – interaction LED

ITEM	System Color	Purpose
1	White R:255 G:255 B:255	Normal / Booting / RCU/ Sound filed mod Auto
2	Green R:7 G:233 B:189	Active standby
3	Blue R:65 G:116 B:177	(TBD) Will match with dongle LED Passive standby
4	Red R:255 G:0 B:0	Network Error
5	Light Blue R:157 G:195 B:230 (If it is possible to control by color temperature, it is 7.000~8.000K based on white)	Sound field mode only 1 (manual - Standard)
6	Cyan R:0 G:198 B:202 (If it is possible to control by color temperature, it is 10000K based on white)	Sound field mode only 2 (manual - News)
7	Yellow R:255 G:192 B:0 (If it is possible to control by color temperature, it is 3.000~4.000K based on white)	Sound field mode only 3 (manual – Music)
8	Orange R:237 G:125 B:49 (If it is possible to control by color temperature, it is ~1.000K based on white)	Sound field mode only 4 (manual – Movie)

[Note] This image is for reference when the sound field mode color can be adjusted by color temperature. (Page to be deleted)



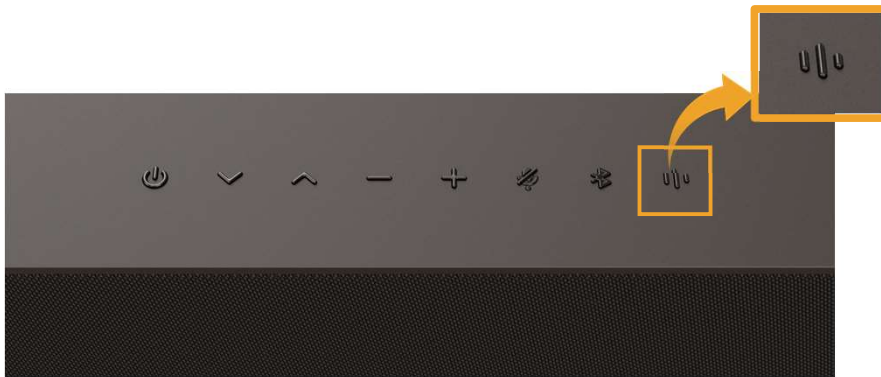
Movie

Music

Standard

News

[Note] Entering sound field mode setting mode: When setting with the HW button



['sound field mode' button operation method]

- The operation of the 'sound field mode' button at the top of the set-top box distinguishes between a long click and a short click.
 - Long click : Switch to Toggle method, Looping
 - Sound field mode on → Sound field mode off → Sound field mode off 유지
 - Short click : Toggle mode switching, looping
 - Standard → News → Music → Movie → Auto → Standard
- ※ The name and sequence of sound field modes, and the result of mapping between Meta Data and sound field modes are TBD

[Sound field mode LED change method in sound field mode setting]

Current sound field mode

State color

→

● White

ON

→

Changed sound field mode

State color

Case 1. Sound field mode power setting: When the current sound field mode is switched from (sound field mode Auto) to (sound field mode off or sound field mode off)

HW Button

long click

Sound field mode Auto status indication

● White ON

Entering mode change

● White ON

Sound field mode off status indication

● White ON

Case 2. Sound field mode sub-mode setting: When the current sound field mode is changed from (sound field mode Auto) to (sound field mode Movie)

HW Button

short click

Sound field mode Auto status indication

● White ON

Entering mode change

● White ON

Sound field mode Movie status indication

● Orange ON

[Note] Entering sound field mode setting mode: When setting to the UI screen

- The sound field mode can be set on the UI screen in the following three ways, and the sound field mode LED flashes white when the sound field mode is changed on the UI screen.
 - VOD playback (notice the current sound field mode in the playback bar)> Viewing option mode> Sound field mode setting



- Settings> (Viewing Environment Category) Screen/Sound Settings> Sound Field Mode Settings



● White ON

Thank you