

# Appearance Values

## **Bluetooth® Document**

---

- **Revision Date:** 2020-09-22

### **Abstract:**

The Appearance characteristic represents the external appearance of a device. The characteristic format is composed of an Appearance Value (16 bits) that is split into a Sub category field (6 bits) and a Category field (10 bits).



This document, regardless of its title or content, is not a Bluetooth Specification subject to the licenses granted by the Bluetooth SIG Inc. (“Bluetooth SIG”) and its members under the Bluetooth Patent/Copyright License Agreement and Bluetooth Trademark License Agreement.

THIS DOCUMENT IS PROVIDED “AS IS” AND BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES MAKE NO REPRESENTATIONS OR WARRANTIES AND DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY, TITLE, NON-INFRINGEMENT, FITNESS FOR ANY PARTICULAR PURPOSE, THAT THE CONTENT OF THIS DOCUMENT IS FREE OF ERRORS.

TO THE EXTENT NOT PROHIBITED BY LAW, BLUETOOTH SIG, ITS MEMBERS, AND THEIR AFFILIATES DISCLAIM ALL LIABILITY ARISING OUT OF OR RELATING TO USE OF THIS DOCUMENT AND ANY INFORMATION CONTAINED IN THIS DOCUMENT, INCLUDING LOST REVENUE, PROFITS, DATA OR PROGRAMS, OR BUSINESS INTERRUPTION, OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND REGARDLESS OF THE THEORY OF LIABILITY, AND EVEN IF BLUETOOTH SIG, ITS MEMBERS, OR THEIR AFFILIATES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

This document is proprietary to Bluetooth SIG. This document may contain or cover subject matter that is intellectual property of Bluetooth SIG and its members. The furnishing of this document does not grant any license to any intellectual property of Bluetooth SIG or its members.

This document is subject to change without notice.

Copyright © 2020 by Bluetooth SIG, Inc. The Bluetooth word mark and logos are owned by Bluetooth SIG, Inc. Other third-party brands and names are the property of their respective owners.



---

# Contents

- 1 Definition .....4
- 2 Category and sub-category fields .....5



# 1 Definition

The structure of the characteristic is defined below.

Field		Data Type	Size (in octets)	Field content description
Appearance Value	Sub-category	6 bits (bits 0–5)	2	See Category and Sub-Category Fields.
	Category	10 bits (bits 6–15)		



## 2 Category and sub-category fields

The values of these fields are defined below.

Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
0	0	Unknown	None
	1–63	Reserved For Future Use	
64	0	Generic Phone	Generic category
	1–63	Reserved For Future Use	
128	0	Generic Computer	Generic category
	1–63	Reserved For Future Use	
192	0	Generic Watch	Generic category
	1	Watch: Sports Watch concatenated value: 193	Watch subtype
	2–63	Reserved For Future Use	
256	0	Generic Clock	Generic category
	1–63	Reserved For Future Use	
320	0	Generic Display	Generic category
	1–63	Reserved For Future Use	
384	0	Generic Remote Control	Generic category
	1–63	Reserved For Future Use	
448	0	Generic Eye-glasses	Generic category
	1–63	Reserved For Future Use	
512	0	Generic Tag	Generic category
	1–63	Reserved For Future Use	
576	0	Generic Keyring	Generic category
	1–63	Reserved For Future Use	
640	0	Generic Media Player	Generic category
	1–63	Reserved For Future Use	

Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
704	0	Generic Barcode Scanner	Generic category
	1–63	Reserved For Future Use	
768	0	Generic Thermometer	Generic category
	1	Thermometer: Ear (concatenated value: 769)	Thermometer subtype
	2–63	Reserved For Future Use	
832	0	Generic Heart Rate Sensor	Generic category
	1	Heart Rate Sensor: Heart Rate Belt (concatenated value: 833)	Heart Rate Sensor subtype
	2–63	Reserved For Future Use	
896	0	Generic Blood Pressure	Generic category
	1	Blood Pressure: Arm (concatenated value: 897)	Blood Pressure subtype
	2	Blood Pressure: Wrist (concatenated value: 898)	Blood Pressure subtype
	3–63	Reserved For Future Use	
960	0	Generic Human Interface Device (HID)	HID Generic
	1	Keyboard (concatenated value: 961)	HID subtype
	2	Mouse (concatenated value: 962)	HID subtype
	3	Joystick (concatenated value: 963)	HID subtype
	4	Gamepad (concatenated value: 964)	HID subtype
	5	Digitizer Tablet (concatenated value: 965)	HID subtype
	6	Card Reader (concatenated value: 966)	HID subtype
	7	Digital Pen (concatenated value: 967)	HID subtype
	8	Barcode Scanner (concatenated value: 968)	HID subtype
	9–63	Reserved For Future Use	
1024	0	Generic Glucose Meter	Generic category
	1–63	Reserved For Future Use	



Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
1088	0	Generic: Running Walking Sensor	Generic category
	1	Running Walking Sensor: In-Shoe (concatenated value: 1089)	Running Walking Sensor subtype
	2	Running Walking Sensor: On-Shoe (concatenated value: 1090)	Running Walking Sensor subtype
	3	Running Walking Sensor: On-Hip (concatenated value: 1091)	Running Walking Sensor subtype
	4–63	Reserved For Future Use	
1152	0	Generic: Cycling	Generic category
	1	Cycling: Cycling Computer (concatenated value: 1153)	Cycling subtype
	2	Cycling: Speed Sensor (concatenated value: 1154)	Cycling subtype
	3	Cycling: Cadence Sensor (concatenated value: 1155)	Cycling subtype
	4	Cycling: Power Sensor (concatenated value: 1156)	Cycling subtype
	5	Cycling: Speed and Cadence Sensor (concatenated value: 1157)	Cycling subtype
	6–63	Reserved For Future Use	
	1216	0	Generic Control Device
1		Switch	Control Device subtype
2		Multi-switch	Control Device subtype
3		Button	Control Device subtype
4		Slider	Control Device subtype
5		Rotary	Control Device subtype
6		Touch-panel	Control Device subtype
7–63		Reserved for Future Use	
1280	0	Generic Network Device	Generic category
	1	Access Point	Generic Network subtype



Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
	2–63	Reserved for Future Use	
1344	0	Generic Sensor	Generic category
	1	Motion Sensor	Sensor subtype
	2	Air Quality Sensor	Sensor subtype
	3	Temperature Sensor	Sensor subtype
	4	Humidity Sensor	Sensor subtype
	5	Leak Sensor	Sensor subtype
	6	Smoke Sensor	Sensor subtype
	7	Occupancy Sensor	Sensor subtype
	8	Contact Sensor	Sensor subtype
	9	Carbon Monoxide Sensor	Sensor subtype
	10	Carbon Dioxide Sensor	Sensor subtype
	11	Ambient Light Sensor	Sensor subtype
	12	Energy Sensor	Sensor subtype
	13	Color Light Sensor	Sensor subtype
	14	Rain Sensor	Sensor subtype
	15	Fire Sensor	Sensor subtype
	16	Wind Sensor	Sensor subtype
	17	Proximity Sensor	Sensor subtype
	18	Multi-Sensor	Sensor subtype
	19–63	Reserved for Future Use	
1408	0	Generic Light Fixtures	Generic category
	1	Wall Light	Light Fixture subtype
	2	Ceiling Light	Light Fixture subtype
	3	Floor Light	Light Fixture subtype
	4	Cabinet Light	Light Fixture subtype





Category (10 bits)	Sub-category (6 bits)	Value Definition	Description	
	5	Desk Light	Light Fixture subtype	
	6	Troffer Light	Light Fixture subtype	
	7	Pendant Light	Light Fixture subtype	
	8	In-ground Light	Light Fixture subtype	
	9	Flood Light	Light Fixture subtype	
	10	Underwater Light	Light Fixture subtype	
	11	Bollard with Light	Light Fixture subtype	
	12	Pathway Light	Light Fixture subtype	
	13	Garden Light	Light Fixture subtype	
	14	Pole-top Light	Light Fixture subtype	
	15	Spotlight	Light Fixture subtype	
	16	Linear Light	Light Fixture subtype	
	17	Street Light	Light Fixture subtype	
	18	Shelves Light	Light Fixture subtype	
	19	High-bay / Low-bay Light	Light Fixture subtype	
	20	Emergency Exit Light	Light Fixture subtype	
	21–63	Reserved for Future Use		
	1472	0	Generic Fan	Generic category
		1	Ceiling Fan	Fan subtype
2		Axial Fan	Fan subtype	
3		Exhaust Fan	Fan subtype	
4		Pedestal Fan	Fan subtype	
5		Desk Fan	Fan subtype	
6		Wall Fan	Fan subtype	
7–63		Reserved for Future Use		
1536	0	Generic HVAC	Generic category	



Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
	1	Thermostat	HVAC subtype
	2–63	Reserved for Future Use	
1600	0	Generic Air Conditioning	Generic category
	1–63	Reserved for Future Use	
1664	0	Generic Humidifier	Generic category
	1–63	Reserved for Future Use	
1728	0	Generic Heating	Generic category
	1	Radiator	Heating subtype
	2	Boiler	Heater subtype
	3	Heat Pump	Heater subtype
	4	Infrared Heater	Heater subtype
	5	Radiant Panel Heater	Heater subtype
	6	Fan Heater	Heater subtype
	7	Air Curtain	Heater subtype
	8–63	Reserved for Future Use	
1792	0	Generic Access Control	Generic category
	1	Access Door	Access subtype
	2	Garage Door	Access subtype
	3	Emergency Exit Door	Access subtype
	4	Access Lock	Access subtype
	5	Elevator	Access subtype
	6	Window	Access subtype
	7	Entrance Gate	Access subtype
	8–63	Reserved for Future Use	
1856	0	Generic Motorized Device	Generic category
	1	Motorized Gate	Motorized subtype



Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
	2	Awning	Motorized subtype
	3	Blinds or Shades	Motorized subtype
	4	Curtains	Motorized subtype
	5	Screen	Motorized subtype
	6–63	Reserved for Future Use	Motorized subtype
1920	0	Generic Power Device	Generic category
	1	Power Outlet	Power subtype
	2	Power Strip	Power subtype
	3	Plug	Power subtype
	4	Power Supply	Power subtype
	5	LED Driver	Power subtype
	6	Fluorescent Lamp Gear	Power subtype
	7	HID Lamp Gear	Power subtype
	8–63	Reserved for Future Use	
1984	0	Generic Light Source	Generic category
	1	Incandescent Light Bulb	Light subtype
	2	LED Bulb	Light subtype
	3	HID Lamp	Light subtype
	4	Fluorescent Lamp	Light subtype
	5	LED Array	Light subtype
	6	Multi-Color LED Array	Light subtype
	7–63	Reserved for Future Use	
3136	0	Generic Pulse Oximeter	Generic category
	1	Fingertip (concatenated value: 3137)	Pulse Oximeter subtype
	2	Wrist Worn (concatenated value: 3138)	Pulse Oximeter subtype



Category (10 bits)	Sub-category (6 bits)	Value Definition	Description
	3–63	Reserved For Future Use	
3200	0	Generic: Weight Scale	Generic category
	1–63	Reserved For Future Use	
5184	0	Generic Outdoor Sports Activity	Generic category
	1	Location Display Device (concatenated value: 5185)	Outdoor Sports Activity subtype
	2	Location and Navigation Display Device (concatenated value: 5186)	Outdoor Sports Activity subtype
	3	Location Pod (concatenated value: 5187)	Outdoor Sports Activity subtype
	4	Location and Navigation Pod (concatenated value: 5188)	Outdoor Sports Activity subtype
	5–63	Reserved For Future Use	

