

Appearance Values

Bluetooth® Document

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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 Category field (10 bits) and a Sub-category field (6 bits).



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1 Definition

The structure of the characteristic is defined below.

Field		Data Type	Size (in octets)	Field content description
Appearance Value	Category	10 bits (bits 15–6)	2	See Category and Sub-category fields, see Section 2.1 and Section 2.2
	Sub-category	6 bits (bits 5–0)		

15

6

5

0

Category	Sub-category
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Figure 1.1: Appearance Value format

2 Appearance Values

Any value defined in this document is reserved for that use by the Bluetooth SIG within the scope of a Bluetooth specification.

Any values not defined in this document within a given range of values are Reserved for Future Use (RFU) and shall be handled as specified in the Bluetooth Core Specification, Volume 1, Part E, Section 2.4.

2.1 Appearance Category ranges

These are the assigned ranges of the appearance categories. Any category that is not assigned is Reserved for Future Use.

Category (bits 15 to 6)	Value Ranges	Name
0x000	0x0000 to 0x003F	Unknown
0x001	0x0040 to 0x007F	Phone
0x002	0x0080 to 0x00BF	Computer
0x003	0x00C0 to 0x00FF	Watch
0x004	0x0100 to 0x013F	Clock
0x005	0x0140 to 0x017F	Display
0x006	0x0180 to 0x01BF	Remote Control
0x007	0x01C0 to 0x01FF	Eye-glasses
0x008	0x0200 to 0x023F	Tag
0x009	0x0240 to 0x027F	Keyring
0x00A	0x0280 to 0x02BF	Media Player
0x00B	0x02C0 to 0x02FF	Barcode Scanner
0x00C	0x0300 to 0x033F	Thermometer
0x00D	0x0340 to 0x037F	Heart Rate Sensor
0x00E	0x0380 to 0x03BF	Blood Pressure
0x00F	0x03C0 to 0x03FF	Human Interface Device
0x010	0x0400 to 0x043F	Glucose Meter
0x011	0x0440 to 0x047F	Running Walking Sensor
0x012	0x0480 to 0x04BF	Cycling
0x013	0x04C0 to 0x04FF	Control Device
0x014	0x0500 to 0x053F	Network Device
0x015	0x0540 to 0x057F	Sensor
0x016	0x0580 to 0x05BF	Light Fixtures
0x017	0x05C0 to 0x05FF	Fan
0x018	0x0600 to 0x063F	HVAC

Category (bits 15 to 6)	Value Ranges	Name
0x019	0x0640 to 0x067F	Air Conditioning
0x01A	0x0680 to 0x06BF	Humidifier
0x01B	0x06C0 to 0x06FF	Heating
0x01C	0x0700 to 0x073F	Access Control
0x01D	0x0740 to 0x077F	Motorized Device
0x01E	0x0780 to 0x07BF	Power Device
0x01F	0x07C0 to 0x07FF	Light Source
0x020	0x0800 to 0x083F	Window Covering
0x021	0x0840 to 0x087F	Audio Sink
0x022	0x0880 to 0x08BF	Audio Source
0x023	0x08C0 to 0x08FF	Motorized Vehicle
0x024	0x0900 to 0x093F	Domestic Appliance
0x025	0x0940 to 0x097F	Wearable Audio Device
0x026	0x0980 to 0x09BF	Aircraft
0x027	0x09C0 to 0x09FF	AV Equipment
0x028	0x0A00 to 0x0A3F	Display Equipment
0x029	0x0A40 to 0x0A7F	Hearing aid
0x02A	0x0A80 to 0x0ABF	Gaming
0x02B	0x0AC0 to 0x0AFF	Signage
0x031	0x0C40 to 0x0C7F	Pulse Oximeter
0x032	0x0C80 to 0x0CBF	Weight Scale
0x033	0x0CC0 to 0x0CFF	Personal Mobility Device
0x034	0x0D00 to 0x0D3F	Continuous Glucose Monitor
0x035	0x0D40 to 0x0D7F	Insulin Pump
0x036	0x0D80 to 0x0DBF	Medication Delivery
0x051	0x1440 to 0x147F	Outdoor Sports Activity

2.2 Appearance Sub-category values

These are the assigned values within the assigned ranges of appearance categories. Any value that is not assigned is Reserved for Future Use.

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
0x000	0x00	0x0000	Generic Unknown
0x001	0x00	0x0040	Generic Phone
0x002	0x00	0x0080	Generic Computer
	0x01	0x0081	Desktop Workstation
	0x02	0x0082	Server-class Computer
	0x03	0x0083	Laptop
	0x04	0x0084	Handheld PC/PDA (clamshell)
	0x05	0x0085	Palm-size PC/PDA
	0x06	0x0086	Wearable computer (watch size)
	0x07	0x0087	Tablet
	0x08	0x0088	Docking Station
	0x09	0x0089	All in One
	0x0A	0x008A	Blade Server
	0x0B	0x008B	Convertible
	0x0C	0x008C	Detachable
	0x0D	0x008D	IoT Gateway
	0x0E	0x008E	Mini PC
	0x0F	0x008F	Stick PC
0x003	0x00	0x00C0	Generic Watch
	0x01	0x00C1	Sports Watch
	0x02	0x00C2	Smartwatch
0x004	0x00	0x0100	Generic Clock
0x005	0x00	0x0140	Generic Display
0x006	0x00	0x0180	Generic Remote Control
0x007	0x00	0x01C0	Generic Eye-glasses
0x008	0x00	0x0200	Generic Tag
0x009	0x00	0x0240	Generic Keyring
0x00A	0x00	0x0280	Generic Media Player
0x00B	0x00	0x02C0	Generic Barcode Scanner
0x00C	0x00	0x0300	Generic Thermometer
	0x01	0x0301	Ear Thermometer

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
0x00D	0x00	0x0340	Generic Heart Rate Sensor
	0x01	0x0341	Heart Rate Belt
0x00E	0x00	0x0380	Generic Blood Pressure
	0x01	0x0381	Arm Blood Pressure
	0x02	0x0382	Wrist Blood Pressure
0x00F	0x00	0x03C0	Generic Human Interface Device
	0x01	0x03C1	Keyboard
	0x02	0x03C2	Mouse
	0x03	0x03C3	Joystick
	0x04	0x03C4	Gamepad
	0x05	0x03C5	Digitizer Tablet
	0x06	0x03C6	Card Reader
	0x07	0x03C7	Digital Pen
	0x08	0x03C8	Barcode Scanner
	0x09	0x03C9	Touchpad
	0x0A	0x03CA	Presentation Remote
	0x00	0x0400	Generic Glucose Meter
	0x00	0x0440	Generic Running Walking Sensor
0x010	0x01	0x0441	In-Shoe Running Walking Sensor
	0x02	0x0442	On-Shoe Running Walking Sensor
	0x03	0x0443	On-Hip Running Walking Sensor
	0x00	0x0480	Generic Cycling
	0x01	0x0481	Cycling Computer
0x011	0x02	0x0482	Speed Sensor
	0x03	0x0483	Cadence Sensor
	0x04	0x0484	Power Sensor
	0x05	0x0485	Speed and Cadence Sensor
	0x00	0x04C0	Generic Control Device
0x012	0x01	0x04C1	Switch
	0x02	0x04C2	Multi-switch
	0x03	0x04C3	Button
	0x04	0x04C4	Slider
	0x05	0x04C5	Rotary Switch
	0x06	0x04C6	Touch Panel

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x07	0x04C7	Single Switch
	0x08	0x04C8	Double Switch
	0x09	0x04C9	Triple Switch
	0x0A	0x04CA	Battery Switch
	0x0B	0x04CB	Energy Harvesting Switch
	0x0C	0x04CC	Push Button
0x014	0x00	0x0500	Generic Network Device
	0x01	0x0501	Access Point
	0x02	0x0502	Mesh Device
	0x03	0x0503	Mesh Network Proxy
0x015	0x00	0x0540	Generic Sensor
	0x01	0x0541	Motion Sensor
	0x02	0x0542	Air quality Sensor
	0x03	0x0543	Temperature Sensor
	0x04	0x0544	Humidity Sensor
	0x05	0x0545	Leak Sensor
	0x06	0x0546	Smoke Sensor
	0x07	0x0547	Occupancy Sensor
	0x08	0x0548	Contact Sensor
	0x09	0x0549	Carbon Monoxide Sensor
	0x0A	0x054A	Carbon Dioxide Sensor
	0x0B	0x054B	Ambient Light Sensor
	0x0C	0x054C	Energy Sensor
	0x0D	0x054D	Color Light Sensor
	0x0E	0x054E	Rain Sensor
	0x0F	0x054F	Fire Sensor
	0x10	0x0550	Wind Sensor
	0x11	0x0551	Proximity Sensor
	0x12	0x0552	Multi-Sensor
	0x13	0x0553	Flush mounted sensor
	0x14	0x0554	Ceiling mounted sensor
	0x15	0x0555	Wall mounted sensor
	0x16	0x0556	Multisensor
	0x17	0x0557	Energy Meter

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x18	0x0558	Flame Detector
	0x19	0x0559	Vehicle Tire Pressure Sensor
0x016	0x00	0x0580	Generic Light Fixtures
	0x01	0x0581	Wall Light
	0x02	0x0582	Ceiling Light
	0x03	0x0583	Floor Light
	0x04	0x0584	Cabinet Light
	0x05	0x0585	Desk Light
	0x06	0x0586	Troffer Light
	0x07	0x0587	Pendant Light
	0x08	0x0588	In-ground Light
	0x09	0x0589	Flood Light
	0x0A	0x058A	Underwater Light
	0x0B	0x058B	Bollard with Light
	0x0C	0x058C	Pathway Light
	0x0D	0x058D	Garden Light
	0x0E	0x058E	Pole-top Light
	0x0F	0x058F	Spotlight
	0x10	0x0590	Linear Light
	0x11	0x0591	Street Light
	0x12	0x0592	Shelves Light
	0x13	0x0593	Bay Light
	0x14	0x0594	Emergency Exit Light
	0x15	0x0595	Light controller
	0x16	0x0596	Light driver
	0x17	0x0597	Bulb
	0x18	0x0598	Low-bay Light
	0x19	0x0599	High-bay Light
0x017	0x00	0x05C0	Generic Fan
	0x01	0x05C1	Ceiling Fan
	0x02	0x05C2	Axial Fan
	0x03	0x05C3	Exhaust Fan
	0x04	0x05C4	Pedestal Fan
	0x05	0x05C5	Desk Fan

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x06	0x05C6	Wall Fan
0x018	0x00	0x0600	Generic HVAC
	0x01	0x0601	Thermostat
	0x02	0x0602	Humidifier
	0x03	0x0603	De-humidifier
	0x04	0x0604	Heater
	0x05	0x0605	Radiator
	0x06	0x0606	Boiler
	0x07	0x0607	Heat pump
	0x08	0x0608	Infrared heater
	0x09	0x0609	Radiant panel heater
	0x0A	0x060A	Fan heater
	0x0B	0x060B	Air curtain
0x019	0x00	0x0640	Generic Air Conditioning
0x01A	0x00	0x0680	Generic Humidifier
0x01B	0x00	0x06C0	Generic Heating
	0x01	0x06C1	Radiator
	0x02	0x06C2	Boiler
	0x03	0x06C3	Heat Pump
	0x04	0x06C4	Infrared Heater
	0x05	0x06C5	Radiant Panel Heater
	0x06	0x06C6	Fan Heater
	0x07	0x06C7	Air Curtain
0x01C	0x00	0x0700	Generic Access Control
	0x01	0x0701	Access Door
	0x02	0x0702	Garage Door
	0x03	0x0703	Emergency Exit Door
	0x04	0x0704	Access Lock
	0x05	0x0705	Elevator
	0x06	0x0706	Window
	0x07	0x0707	Entrance Gate
	0x08	0x0708	Door Lock
	0x09	0x0709	Locker
0x01D	0x00	0x0740	Generic Motorized Device

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x01	0x0741	Motorized Gate
	0x02	0x0742	Awning
	0x03	0x0743	Blinds or Shades
	0x04	0x0744	Curtains
	0x05	0x0745	Screen
0x01E	0x00	0x0780	Generic Power Device
	0x01	0x0781	Power Outlet
	0x02	0x0782	Power Strip
	0x03	0x0783	Plug
	0x04	0x0784	Power Supply
	0x05	0x0785	LED Driver
	0x06	0x0786	Fluorescent Lamp Gear
	0x07	0x0787	HID Lamp Gear
	0x08	0x0788	Charge Case
	0x09	0x0789	Power Bank
0x01F	0x00	0x07C0	Generic Light Source
	0x01	0x07C1	Incandescent Light Bulb
	0x02	0x07C2	LED Lamp
	0x03	0x07C3	HID Lamp
	0x04	0x07C4	Fluorescent Lamp
	0x05	0x07C5	LED Array
	0x06	0x07C6	Multi-Color LED Array
	0x07	0x07C7	Low voltage halogen
	0x08	0x07C8	Organic light emitting diode (OLED)
0x020	0x00	0x0800	Generic Window Covering
	0x01	0x0801	Window Shades
	0x02	0x0802	Window Blinds
	0x03	0x0803	Window Awning
	0x04	0x0804	Window Curtain
	0x05	0x0805	Exterior Shutter
	0x06	0x0806	Exterior Screen
0x021	0x00	0x0840	Generic Audio Sink
	0x01	0x0841	Standalone Speaker
	0x02	0x0842	Soundbar

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x03	0x0843	Bookshelf Speaker
	0x04	0x0844	Standmounted Speaker
	0x05	0x0845	Speakerphone
0x022	0x00	0x0880	Generic Audio Source
	0x01	0x0881	Microphone
	0x02	0x0882	Alarm
	0x03	0x0883	Bell
	0x04	0x0884	Horn
	0x05	0x0885	Broadcasting Device
	0x06	0x0886	Service Desk
	0x07	0x0887	Kiosk
	0x08	0x0888	Broadcasting Room
	0x09	0x0889	Auditorium
0x023	0x00	0x08C0	Generic Motorized Vehicle
	0x01	0x08C1	Car
	0x02	0x08C2	Large Goods Vehicle
	0x03	0x08C3	2-Wheeled Vehicle
	0x04	0x08C4	Motorbike
	0x05	0x08C5	Scooter
	0x06	0x08C6	Moped
	0x07	0x08C7	3-Wheeled Vehicle
	0x08	0x08C8	Light Vehicle
	0x09	0x08C9	Quad Bike
	0x0A	0x08CA	Minibus
	0x0B	0x08CB	Bus
	0x0C	0x08CC	Trolley
	0x0D	0x08CD	Agricultural Vehicle
	0x0E	0x08CE	Camper / Caravan
	0x0F	0x08CF	Recreational Vehicle / Motor Home
0x024	0x00	0x0900	Generic Domestic Appliance
	0x01	0x0901	Refrigerator
	0x02	0x0902	Freezer
	0x03	0x0903	Oven
	0x04	0x0904	Microwave

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x05	0x0905	Toaster
	0x06	0x0906	Washing Machine
	0x07	0x0907	Dryer
	0x08	0x0908	Coffee maker
	0x09	0x0909	Clothes iron
	0x0A	0x090A	Curling iron
	0x0B	0x090B	Hair dryer
	0x0C	0x090C	Vacuum cleaner
	0x0D	0x090D	Robotic vacuum cleaner
	0x0E	0x090E	Rice cooker
	0x0F	0x090F	Clothes steamer
0x025	0x00	0x0940	Generic Wearable Audio Device
	0x01	0x0941	Earbud
	0x02	0x0942	Headset
	0x03	0x0943	Headphones
	0x04	0x0944	Neck Band
0x026	0x00	0x0980	Generic Aircraft
	0x01	0x0981	Light Aircraft
	0x02	0x0982	Microlight
	0x03	0x0983	Paraglider
	0x04	0x0984	Large Passenger Aircraft
0x027	0x00	0x09C0	Generic AV Equipment
	0x01	0x09C1	Amplifier
	0x02	0x09C2	Receiver
	0x03	0x09C3	Radio
	0x04	0x09C4	Tuner
	0x05	0x09C5	Turntable
	0x06	0x09C6	CD Player
	0x07	0x09C7	DVD Player
	0x08	0x09C8	Bluray Player
	0x09	0x09C9	Optical Disc Player
	0x0A	0x09CA	Set-Top Box
0x028	0x00	0x0A00	Generic Display Equipment
	0x01	0x0A01	Television

Category (bits 15 to 6)	Subcategory (bits 5 to 0)	Value	Name
	0x02	0x0A02	Monitor
	0x03	0x0A03	Projector
0x029	0x00	0x0A40	Generic Hearing aid
	0x01	0x0A41	In-ear hearing aid
	0x02	0x0A42	Behind-ear hearing aid
	0x03	0x0A43	Cochlear Implant
0x02A	0x00	0x0A80	Generic Gaming
	0x01	0x0A81	Home Video Game Console
	0x02	0x0A82	Portable handheld console
0x02B	0x00	0x0AC0	Generic Signage
	0x01	0x0AC1	Digital Signage
	0x02	0x0AC2	Electronic Label
0x031	0x00	0x0C40	Generic Pulse Oximeter
	0x01	0x0C41	Fingertip Pulse Oximeter
	0x02	0x0C42	Wrist Worn Pulse Oximeter
0x032	0x00	0x0C80	Generic Weight Scale
0x033	0x00	0x0CC0	Generic Personal Mobility Device
	0x01	0x0CC1	Powered Wheelchair
	0x02	0x0CC2	Mobility Scooter
0x034	0x00	0x0D00	Generic Continuous Glucose Monitor
0x035	0x00	0x0D40	Generic Insulin Pump
	0x01	0x0D41	Insulin Pump, durable pump
	0x04	0x0D44	Insulin Pump, patch pump
	0x08	0x0D48	Insulin Pen
0x036	0x00	0x0D80	Generic Medication Delivery
0x051	0x00	0x1440	Generic Outdoor Sports Activity
	0x01	0x1441	Location Display
	0x02	0x1442	Location and Navigation Display
	0x03	0x1443	Location Pod
	0x04	0x1444	Location and Navigation Pod