

Document: SensiBLE3.0_GATT_description
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This document describes the GATT structure of the SensiBLE3.0 device.

Description of custom services and characteristics.

Service	Power						
Characteristic	Battery						
Description	The characteristic describes the property of the battery of the device. Its voltage, capacity, and charging status. When the NOIFY property is enable, the notifications are sent to the client at a frequency of 1 Hz.						
UUID	6ecd5f-8539-4ba1-af35-41d333468d34						
Value type	hex						
Value length	6						
Property	Notify						
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Dimension</i>	<i>Note</i>
	Voltage	0 - 3	float LE	3	4.5	Volt	
	Capacity	4	uint8	0	100	Percent	0% battery is fully discharged, 100% battery is fully charged.
	Charging state	5	uint8	0	1	Boolean	0 - the battery does not charge, 1 - the battery is charging.

Service	Humidity Sensor						
Characteristics	Humidity						
Description	The characteristic provides a relative value of humidity. When the NOIFY property is enable, the notifications are sent to the client at a frequency of 1 Hz.						
UUID	269b76f2-7351-4de9-8581-12ebe6abd9dd						
Value type	hex						
Value length	1						
Property	Notify						
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Dimension</i>	<i>Note</i>
	Humidity	0	uint8	0	100	Percent	

Service	Thermometer						
Characteristic	Temperature Measurement						
Description	The characteristic describes the current temperature. When the NOTIFY property is enable, the notifications are sent to the client at a frequency of 1 Hz.						
UUID	c334d7df-0ed5-4f9a-9f8e-e84f79954dbe						
Value type	hex						
Value length	4						
Property	Notify						
Data format	Name	Bytes	Format	Min value	Max value	Dimension	Note
	Temperature	0 - 3	float LE	-40	150	Degrees Celsius	
Characteristic	Alert						
Description	The characteristic indicates when the temperature is outside the specified limits. The notification is sent only when the status is changed.						
UUID	7ebc88f9-1e5e-4805-87ad-e3b370dbe7e9						
Value type	hex						
Value length	1						
Property	Indicate						
Data format	Name	Bytes	Format	Min value	Max value	Dimension	Note
	Alert status	0	uint8	0	1	Boolean	0 - the temperature is within the specified limits, 1 - the temperature is above or below the specified limits.
Characteristic	Alert Limits						
Description	The characteristic allows setting the minimum and maximum temperature values. If the temperature goes beyond these values, the client will receive a notification if they are allowed.						
UUID	91e13f5b-5657-43b8-b70a-5d12e222976b						
Value type	hex						
Value length	2						
Property	Write						
Data format	Name	Bytes	Format	Min value	Max value	Dimension	Note
	Min limit	0	int8	-40	127	Degrees Celsius	
	Max limit	1	int8	-40	127	Degrees Celsius	

Service	Smoke Sensor						
Characteristics	Smoke Measurement						
Description	The characteristic provides the value of the optical sensors of the smoke sensor. The data is measured in two modes (Time Slot A / B). The ratio of these values indicates smoke. When the NOIFY property is enable, the notifications are sent to the client at a frequency of 25 Hz.						
UUID	8ef07f96-b69c-4acf-a27d-873fc0b611b0						
Value type	hex						
Value length	5						
Property	Notify						
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Dimension</i>	<i>Note</i>
	Time Slot A	0 - 1	uint16 LE	0	65535	-	
	Time Slot B	2 - 3	uint16 LE	0	65535	-	
	Presence of smoke	4	uint8	0	1	Boolean	0 - no smoke 1 - there is smoke

Service	Accelerometer						
Characteristics	Accelerometer Measurement						
Description	The characteristic provides acceleration values along three axes - XYZ. When the NOIFY property is enable, the notifications are sent to the client at a frequency of 50 Hz.						
UUID	4f951936-c189-4e53-89ce-9ac2e5f1f91b						
Value type	hex						
Value length	12						
Property	Notify						
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Dimension</i>	<i>Note</i>
	X axis	0 - 3	float LE	-8	8	G	
	Y axis	4 - 7	float LE	-8	8	G	
	Z axis	8 -11	float LE	-8	8	G	
Characteristics	Alert						
Description	The characteristic displays activity and inactivity detection. Notifications are sent to the client once, when the state changes, if notifications are allowed.						
UUID	b5dea35e-3dba-40fc-b03b-2c3a9a5da4ab						
Value type	hex						
Value length	1						
Property	Indicate						
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Dimension</i>	<i>Note</i>
	Alert status	0	uint8	0	1	Boolean	0 - inactivity state 1 - activity state

Service	GpioAdcDac					
Characteristics	GpioAdcDac Control					
Description	The characteristic provides the values of the logical inputs / outputs and the value of the ADC. Allows setting the value of the logic outputs and the value of the DAC. When the NOIFY property is enable, the notifications are sent to the client at a frequency of 10 Hz.					
UUID	5b9803e5-c62b-4a55-b151-3d4b26d1f5dc					
Value type	hex					
Value length	3					
Property	Write					
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Note</i>
	OUT index	0	uint8	0	7	2 - Logic out 0, 3 - Logic out 1, 5 - DAC 7 - Red Led
	OUT value	1 - 2	uint16 LE	0	4095	If the index field is 2, 3 or 7. Valid values are 0 and 1.
Property	Notify					
Data format	<i>Name</i>	<i>Bytes</i>	<i>Format</i>	<i>Min value</i>	<i>Max value</i>	<i>Note</i>
	Logic IN/OUT state	0	uint8	-	-	This field is bitmask. The bit values correspond to the values at the logic inputs / outputs of the chip. Bits that can be set: 0 - Logic input 0, 1 - Logic input 1, 2 - Logic out 0, 3 - Logic out 1, 7 - Red led.
	ADC value	1 - 2	uint16 LE	0	4095	