

# SensorTag attribute table

TI Base UUID: F000XXXX-0451-4000-B000-000000000000. 128-bit UUIDs are typed 'bold blue'

Handle (hex)	Handle (dec)	Type (hex)	Type (text)	Hex value	GATT Server Permissions	Description/Value (text)
0x1	1	0x2800	GATT Primary Service Declaration	0x1800	R	Generic Access Service
0x2	2	0x2803	GATT Characteristic Declaration	02:03:00:00:2A	R	Device Name
0x3	3	0x2A00	Device Name	54:49:20:42:4C:45:20:53:65:6E:73:6F:72:20:54:61:67	R	TI BLE Sensor Tag
0x4	4	0x2803	GATT Characteristic Declaration	02:05:00:01:2A	R	Appearance
0x5	5	0x2A01	Appearance	00:00	R	
0x6	6	0x2803	GATT Characteristic Declaration	0A:07:00:02:2A	R	Peripheral Privacy Flag
0x7	7	0x2A02	Peripheral Privacy Flag	00	RW	
0x8	8	0x2803	GATT Characteristic Declaration	08:09:00:03:2A	R	Reconnection Address
0x9	9	0x2A03	Reconnection Address		W	
0xA	10	0x2803	GATT Characteristic Declaration	02:0B:00:04:2A	R	Peripheral Preferred Connection Parameters
0xB	11	0x2A04	Peripheral Preferred Connection Parameters	50:00:A0:00:00:00:E8:03	R	P
0xC	12	0x2800	GATT Primary Service Declaration	0x1801	R	Generic Attribute Service
0xD	13	0x2803	GATT Characteristic Declaration	20:0E:00:05:2A	R	Service Changed
0xE	14	0x2A05	Service Changed		I	
0xF	15	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable

0x10	16	0x2800	GATT Primary Service Declaration	0x180A	R	Device Information Service
0x11	17	0x2803	GATT Characteristic Declaration	02:12:00:23:2A	R	System ID
0x12	18	0x2A23	System ID	60:E2:B1:00:00:EB:D7:90	R	`
0x13	19	0x2803	GATT Characteristic Declaration	02:14:00:24:2A	R	Model Number String
0x14	20	0x2A24	Model Number String	4E:2E:41:2E:00	R	N.A.
0x15	21	0x2803	GATT Characteristic Declaration	02:16:00:25:2A	R	Serial Number String
0x16	22	0x2A25	Serial Number String	4E:2E:41:2E:00	R	N.A.
0x17	23	0x2803	GATT Characteristic Declaration	02:18:00:26:2A	R	Firmware Revision String
0x18	24	0x2A26	Firmware Revision String	31:2E:35:20:28:4F:63:74:20:32:33:20:32:30:31:33:29:00	R	1.5 (Oct 23 2013)
0x19	25	0x2803	GATT Characteristic Declaration	02:1A:00:27:2A	R	Hardware Revision String
0x1A	26	0x2A27	Hardware Revision String	4E:2E:41:2E:00	R	N.A.
0x1B	27	0x2803	GATT Characteristic Declaration	02:1C:00:28:2A	R	Software Revision String
0x1C	28	0x2A28	Software Revision String	4E:2E:41:2E:00	R	N.A.
0x1D	29	0x2803	GATT Characteristic Declaration	02:1E:00:29:2A	R	Manufacturer Name String
0x1E	30	0x2A29	Manufacturer Name String	54:65:78:61:73:20:49:6E:73:74:72:75:6D:65:6E:74:73:00	R	Texas Instruments
0x1F	31	0x2803	GATT Characteristic Declaration	02:20:00:2A:2A	R	IEEE 11073-20601 Regulatory Certification Data List
0x20	32	0x2A2A	IEEE 11073-20601 Regulatory	FE:00:65:78:70:65:72:69:6D:65:6E:74:61:6C	R	experimental

			Certification Data List			
0x21	33	0x2803	GATT Characteristic Declaration	02:22:00:50:2A	R	PnP ID
0x22	34	0x2A50	PnP ID	01:0D:00:00:00:10:01	R	
0x23	35	0x2800	GATT Primary Service Declaration	F000AA00-0451-4000-B000-000000000000	R	IR Temperature Service
0x24	36	0x2803	GATT Characteristic Declaration	12:25:00:00:00:00:00:00:00:00:B0:00:40:51:04:01:AA:00:F0	R	IR Temperature Data
0x25	37	0xAA01	IR Temperature Data	00:00:00:00	RN	ObjectLSB:ObjectMSB:AmbientLSB:AmbientMSB
0x26	38	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x27	39	0x2901	Characteristic User Description	54:65:6D:70:2E:20:44:61:74:61	R	Temp. Data
0x28	40	0x2803	GATT Characteristic Declaration	0A:29:00:00:00:00:00:00:00:00:B0:00:40:51:04:02:AA:00:F0	R	IR Temperature Config
0x29	41	0xAA02	IR Temperature Config	00	RW	Write "01" to start Sensor and Measurements, "00" to put to sleep
0x2A	42	0x2901	Characteristic User Description	54:65:6D:70:2E:20:43:6F:6E:66:2E	R	Temp. Conf.
0x2B	43	0x2803	GATT Characteristic Declaration	0A:2C:00:00:00:00:00:00:00:00:B0:00:40:51:04:03:AA:00:F0	R	IR Temperature Period
0x2C	44	0xAA03	IR Temperature Period	64	RW	Period = [Input*10] ms, (lower limit 300 ms), default 1000 ms
0x2D	45	0x2901	Characteristic User Description	54:65:6D:70:2E:20:50:65:72:69:6F:64	R	Temp. Period
0x2E	46	0x2800	GATT Primary Service Declaration	F000AA10-0451-4000-B000-000000000000	R	Accelerometer Service
0x2F	47	0x2803	GATT Characteristic Declaration	12:30:00:00:00:00:00:00:00:00:B0:00:40:51:04:11:AA:00:F0	R	Accelerometer Data
0x30	48	0xAA11	Accelerometer Data	00:00:00	RN	X : Y : Z Coordinates
0x31	49	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable

			Configuration			
0x32	50	0x2901	Characteristic User Description	41:63:63:65:6C:2E:20:44:61:74:61	R	Accel. Data
0x33	51	0x2803	GATT Characteristic Declaration	0A:34:00:00:00:00:00:00:00:00:B0:00:40:51:04:12:AA:00:F0	R	Accelerometer Config
0x34	52	0xAA12	Accelerometer Config	00	RW	Write "01" to select range 2G, "02" for 4G, "03" for 8G, "00" disable sensor
0x35	53	0x2901	Characteristic User Description	41:63:63:65:6C:2E:20:43:6F:6E:66:2E	R	Accel. Conf.
0x36	54	0x2803	GATT Characteristic Declaration	0A:37:00:00:00:00:00:00:00:00:B0:00:40:51:04:13:AA:00:F0	R	Accelerometer Period
0x37	55	0xAA13	Accelerometer Period	64	RW	Period = [Input*10] ms, (lower limit 100ms), default 1000 ms
0x38	56	0x2901	Characteristic User Description	41:63:63:65:6C:2E:20:50:65:72:69:6F:64	R	Accel. Period
0x39	57	0x2800	GATT Primary Service Declaration	F000AA20-0451-4000-B000-000000000000	R	Humidity Service
0x3A	58	0x2803	GATT Characteristic Declaration	12:3B:00:00:00:00:00:00:00:00:B0:00:40:51:04:21:AA:00:F0	R	Humidity Data
0x3B	59	0xAA21	Humidity Data	00:00:00:00	RN	TempLSB:TempMSB:HumidityLSB:HumidityMSB
0x3C	60	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x3D	61	0x2901	Characteristic User Description	48:75:6D:69:64:2E:20:44:61:74:61	R	Humid. Data
0x3E	62	0x2803	GATT Characteristic Declaration	0A:3F:00:00:00:00:00:00:00:00:B0:00:40:51:04:22:AA:00:F0	R	Humidity Config
0x3F	63	0xAA22	Humidity Config	00	RW	Write "01" to start measurements, "00" to stop
0x40	64	0x2901	Characteristic User Description	48:75:6D:69:64:2E:20:43:6F:6E:66:2E	R	Humid. Conf.
0x41	65	0x2803	GATT Characteristic Declaration	0A:42:00:00:00:00:00:00:00:00:B0:00:40:51:04:23:AA:00:F0	R	Humidity Period
0x42	66	0xAA23	Humidity Period	64	RW	Period = [Input*10] ms, (lower limit 100 ms), default 1000 ms

0x43	67	0x2901	Characteristic User Description	48:75:6D:69:64:2E:20:50:65:72:69:6F:64	R	Humid. Period
0x44	68	0x2800	GATT Primary Service Declaration	F000AA30-0451-4000-B000-000000000000	R	Magnetometer Service
0x45	69	0x2803	GATT Characteristic Declaration	12:46:00:00:00:00:00:00:00:00:B0:00:40:51:04:31:AA:00:F0	R	Magnetometer Data
0x46	70	0xAA31	Magnetometer Data	00:00:00:00:00:00	RN	XLSB:XMSB:YLSB:YMSB: ZLSB:ZMSB Coordinates
0x47	71	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x48	72	0x2901	Characteristic User Description	4D:61:67:6E:2E:20:44:61:74:61	R	Magn. Data
0x49	73	0x2803	GATT Characteristic Declaration	0A:4A:00:00:00:00:00:00:00:00:B0:00:40:51:04:32:AA:00:F0	R	Magnetometer Config
0x4A	74	0xAA32	Magnetometer Config	00	RW	Write "01" to start Sensor and Measurements, "00" to put to sleep
0x4B	75	0x2901	Characteristic User Description	4D:61:67:6E:2E:20:43:6F:6E:66:2E	R	Magn. Conf.
0x4C	76	0x2803	GATT Characteristic Declaration	0A:4D:00:00:00:00:00:00:00:00:B0:00:40:51:04:33:AA:00:F0	R	Magnetometer Period
0x4D	77	0xAA33	Magnetometer Period	C8	RW	Period = [Input*10]ms (lower limit 100ms), default 2000ms
0x4E	78	0x2901	Characteristic User Description	4D:61:67:6E:2E:20:50:65:72:69:6F:64	R	Magn. Period
0x4F	79	0x2800	GATT Primary Service Declaration	F000AA40-0451-4000-B000-000000000000	R	Barometer Service
0x50	80	0x2803	GATT Characteristic Declaration	12:51:00:00:00:00:00:00:00:00:B0:00:40:51:04:41:AA:00:F0	R	Barometer Data
0x51	81	0xAA41	Barometer Data	00:00:00:00	RN	TempLSB:TempMSB:PressureLSB:PressureMSB
0x52	82	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x53	83	0x2901	Characteristic User Description	42:61:72:6F:6D:2E:20:44:61:74:61	R	Barom. Data

			Description			
0x54	84	0x2803	GATT Characteristic Declaration	0A:55:00:00:00:00:00:00:00:00:B0:00:40:51:04:42:AA:00:F0	R	Barometer Configuration
0x55	85	0xAA42	Barometer Configuration	00	RW	Write "01" to start Sensor and Measurements, "00" to put to sleep, "02" to read calibration values from sensor
0x56	86	0x2901	Characteristic User Description	42:61:72:6F:6D:2E:20:43:6F:6E:66:2E	R	Barom. Conf.
0x57	87	0x2803	GATT Characteristic Declaration	0A:58:00:00:00:00:00:00:00:00:B0:00:40:51:04:44:AA:00:F0	R	Barometer Period
0x58	88	0xAA44	Barometer Period	64	RW	Period = [Input*10] ms, (lower limit 100 ms), default 1000 ms
0x59	89	0x2901	Characteristic User Description	42:61:72:6F:6D:2E:20:50:65:72:69:6F:64	R	Barom. Period
0x5A	90	0x2803	GATT Characteristic Declaration	02:5B:00:00:00:00:00:00:00:00:B0:00:40:51:04:43:AA:00:F0	R	Barometer Calibration
0x5B	91	0xAA43	Barometer Calibration	00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00:00	R	When write "02" to Barometer conf. has been issued, the calibration values is found here.
0x5C	92	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x5D	93	0x2901	Characteristic User Description	42:61:72:6F:6D:2E:20:43:61:6C:69:62:72:2E	R	Barom. Calibr.
0x5E	94	0x2800	GATT Primary Service Declaration	F000AA50-0451-4000-B000-000000000000	R	Gyroscope Service
0x5F	95	0x2803	GATT Characteristic Declaration	12:60:00:00:00:00:00:00:00:00:B0:00:40:51:04:51:AA:00:F0	R	Gyroscope Data
0x60	96	0xAA51	Gyroscope Data	00:00:00:00:00:00	RN	XL5B:XMSB:YL5B:YMSB: ZL5B:ZMSB
0x61	97	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x62	98	0x2901	Characteristic User Description	47:79:72:6F:20:44:61:74:61	R	Gyro Data
0x63	99	0x2803	GATT Characteristic Declaration	0A:64:00:00:00:00:00:00:00:00:B0:00:40:51:04:52:AA:00:F0	R	Gyroscope Config
0x64	100	0xAA52	Gyroscope Config	00	RW	Write 0 to turn off gyroscope, 1 to enable X axis only, 2 to enable Y axis only, 3 = X and Y, 4 = Z only, 5 = X and Z, 6 = Y

						and Z, 7 = X, Y and Z
0x65	101	0x2901	Characteristic User Description	47:79:72:6F:20:43:6F:6E:66:2E	R	Gyro Conf.
0x66	102	0x2803	GATT Characteristic Declaration	0A:67:00:00:00:00:00:00:00:00:B0:00:40:51:04:53:AA:00:F0	R	Gyroscope Period
0x67	103	0xAA53	Gyroscope Period	64	RW	Period = [Input*10]ms (lower limit 100ms), default 1000ms
0x68	104	0x2901	Characteristic User Description	47:79:72:6F:20:50:65:72:69:6F:64	R	Gyro Period
0x69	105	0x2800	GATT Primary Service Declaration	0xFFE0	R	Simple Keys Service
0x6A	106	0x2803	GATT Characteristic Declaration	10:6B:00:E1:FF	R	Key press state
0x6B	107	0xFFE1	Key press state		N	
0x6C	108	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x6D	109	0x2901	Characteristic User Description	4B:65:79:20:50:72:65:73:73:20:53:74:61:74:65	R	Key Press State
0x6E	110	0x2800	GATT Primary Service Declaration	F000AA60-0451-4000-B000-000000000000	R	Test Service
0x6F	111	0x2803	GATT Characteristic Declaration	02:70:00:00:00:00:00:00:00:00:00:00:00:00:B0:00:40:51:04:61:AA:00:F0	R	Test Data
0x70	112	0xAA61	Test Data	3F:00	R	Self-test results (high bit indicates PASSED): Bit 0:IR temp, 1:Humidity, 2:Magnetometer, 3:accelerometer, 4:Barometer, 5:Gyroscope
0x71	113	0x2901	Characteristic User Description	54:65:73:74:20:44:61:74:61	R	Test Data
0x72	114	0x2803	GATT Characteristic Declaration	0A:73:00:00:00:00:00:00:00:00:00:00:00:00:B0:00:40:51:04:62:AA:00:F0	R	Test Config
0x73	115	0xAA62	Test Config	00	RW	bit 7: enable test mode; bit 0-1 LED bit mask
0x74	116	0x2901	Characteristic User Description	54:65:73:74:20:43:6F:6E:66:69:67	R	Test Config

0x75	117	0x2800	GATT Primary Service Declaration	F000CCC0-0451-4000-B000-000000000000	R	Connection Control Service
0x76	118	0x2803	GATT Characteristic Declaration	12:77:00:00:00:00:00:00:00:00:B0:00:40:51:04:C1:CC:00:F0	R	Connection Parameters
0x77	119	0xCCC1	Connection Parameters	10:00:00:00:32:00	RN	ConnInterval,SlaveLatency,SupervisionTimeout (2 bytes each)
0x78	120	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x79	121	0x2901	Characteristic User Description	43:6F:6E:6E:2E:20:50:61:72:61:6D:73	R	Conn. Params
0x7A	122	0x2803	GATT Characteristic Declaration	08:7B:00:00:00:00:00:00:00:00:B0:00:40:51:04:C2:CC:00:F0	R	Request Connection Parameters
0x7B	123	0xCCC2	Request Connection Parameters		W	MinConnInterval,MaxConnInterval,SlaveLatency,SupervisionTimeout (2 bytes each)
0x7C	124	0x2901	Characteristic User Description	43:6F:6E:6E:2E:20:50:61:72:61:6D:73:20:52:65:71	R	Conn. Params Req
0x7D	125	0x2803	GATT Characteristic Declaration	08:7E:00:00:00:00:00:00:00:00:B0:00:40:51:04:C3:CC:00:F0	R	Disconnect request
0x7E	126	0xCCC3	Disconnect request		W	Change the value to disconnect
0x7F	127	0x2901	Characteristic User Description	44:69:73:63:6F:6E:6E:65:63:74:20:52:65:71	R	Disconnect Req
0x80	128	0x2800	GATT Primary Service Declaration	F000FFC0-0451-4000-B000-000000000000	R	OAD Service
0x81	129	0x2803	GATT Characteristic Declaration	1C:82:00:00:00:00:00:00:00:00:B0:00:40:51:04:C1:FF:00:F0	R	OAD Image Identify
0x82	130	0xFFC1	OAD Image Identify		WN	Write '0' to identify image type 'A', '1' to identify 'B'. Data in notification 8 bytes: image type (2), size/4 (2), user data (4).
0x83	131	0x2902	Client Characteristic Configuration	00:00	RW	Write "01:00" to enable notifications, "00:00" to disable
0x84	132	0x2901	Characteristic User Description	49:6D:67:20:49:64:65:6E:74:69:66:79	R	Img Identify

