Test Report

TEST ID	TEST CONDITION	EXPECTED OUTPUT	RESULT
1	Execute LED Blink program in Nordic evaluation board to verify environment setup	LED in the Nordic evaluation board will blink.	PASS
2	Interface TMP102 module to the Nordic evaluation board. Using I2C API's read temperature and compare it with current room temperature	Values read will be in the range of normal room temperature.	PASS
3	Enable SD bit in configuration register of tmp102 for shutting down the TMP102 module and read the configuration register to ensure changes made by the write operation	Changes will be written to the configuration register as expected.	PASS
4	Enable OS bit in the configuration register for One Shot mode temperature conversion and read the temperature register.	One shot mode of tmp102 works a expected and the values will be in the range of normal room temperature.	PASS
5	Interface the tmp102 sensor with the Nordic evaluation board and execute the temperature broadcast program. Using Nordic development dongle and master emulator, check whether temperature data is advertised and broadcast.	In the master control panel, receive the temperature broadcast advertisement and read current temperature and battery level.	PASS
6	Execute the temperature alarm service program in the evaluation board. Check whether the alarm service advertisement is received in the master emulator and all the characteristics are received. Test whether values can be written to the characteristic fields from the master control panel.	In master control panel, receive all the characteristics of the temperature alarm service. Set values for the temperature low /high and alarm set characteristics.	PASS

7	Set a low value and high value for the temperature range and set the alarm. Check whether the alarm characteristics is received as 0x01 when the current temperature is lower that the low value	In the master emulator, a value 0x01 will be received for the alarm characteristics.	PASS
8	After the test case #7 set the temperature low value to a value less that the current temperature and check whether the alarm value is reset to 00	The alarm field will be reset to 0x00.	PASS
9	Check whether the alarm is set to 0x02 when the current temperature is higher than the temperature high value.	A value 0x02 will be received for the alarm characteristics	PASS
10	After the test case #9 set the temperature high value to a value larger than the current temperature and check whether the alarm value is reset to 0x00	The alarm field will be reset to 0x00.	PASS
11	Reset the alarm set field to 0x00 and confirm that the alarm is always reset to 0x00.	The alarm field is always reset to 0x00 when alarm set is 0x00	PASS
12	In the routine for reading temperature, hard code a negative value to be returned for temperature. Repeat the test cases # 7 to 11 to test whether the temperature alarm is working for negative temperature values also.	Results of test cases 7 to 11 will be consistent for negative values of temperature also.	PASS
13	Integrate the temperature broadcast service and temperature alarm service. Check whether broadcast advertisement is received for 20 seconds and temperature alarm service is received for 30 seconds periodically.	Receive the broadcast advertisement for 20 seconds and temperature alarm service for 30 seconds periodically.	PASS
14	Test all the functionality of temperature broadcast service and temperature alarm service after integration. Repeat test cases 6 to 12.	Results of test cases 6 to 12 will be consistent after integration also	PASS
15	Developed driver for ISL29023 and verified wheather it is functioning properly	Approximate ambient light values for the enviornment was obtained	PASS

16	Developed driver for soil measure ment using ADC	ADC result varies when a pottentiometer is connected to ADC input	PASS
17	Created alarm framework for Climate profile (temperature , light and humidity) and tested for alarm conditions using hard coded values	Alarm triggering properly for the corresponding High/Low value	PASS
18	Created alarm framework for Climate profile (temperature , light and soil moisture) and tested for alarm conditions using hard coded values	Alarm triggering properly for the corresponding High/Low value	PASS
19	Created Switch Mode characteristics in temperature alarm service for switching from connectable mode to broadcast mode	When mode switch == 1 and device is disconnecd code flows goes to broadcast mode	PASS
20	Created Data Logger Service for storing the data which is read from the sensors and retrieve it back when neccesary by setting a characteristic	Data written into flash area when data logging enabled and read back the logged data from the flash	PASS
21	Created Water prfile and its associated alarm services.also integrated DFU and datalogger services to the profile	Alarm services, DFU and Data logger working as expected an	PASS
22	Created Thermo prfile and its associated alarm services.also integrated DFU and datalogger services to the profile	Alarm services, DFU and Data logger working as expected an	PASS
23	Created Thermo prfile and its associated alarm services.also integrated DFU and datalogger services to the profile	Alarm services, DFU and Data logger working as expected an	PASS
24	Created Sentry prfile and its associated alarm services.also integrated DFU and datalogger services to the profile	Alarm services, DFU and Data logger working as expected an	PASS