BT SDK 1.3 Release

Code Examples

The code examples below are included in the BT SDK1.3 -

Apps	Location	CYW920819 EVB-02	CYBT-213043-MESH	CYBT-213043-EVAL	CYW920820 EVB-02	CYW989820 EVB-01	CYW920721B2 EVK-01	CYW920719B2 Q40EVB-01
		20819-A1 chip			**20820-A1 chip**		**20739-B2 chip**	
Demo								
BLE_Mesh_OnOffSwitch (on_off_switch) (Emulate mesh power controls using ClientControl utility)	Installed & GitHub	X	X	X	X			
BLE_Mesh_LightDimmable (light_dimmable) (Emulate mesh light using ClientControl utility)	Installed & GitHub	X	X	X	X			
BLE_Mesh_Dimmer (dimmer) (Emulate mesh light controls using ClientControl utility)	Installed & GitHub	X	X	X	X			
BLE_Mesh_SensorTemperature (sensor_temperature) (Emulate mesh Temperature Sensor using ClientControl utility)	Installed & GitHub	X	X		X			
BLE_Mesh_LightSmart (light_smart) (Emulate smart light)	GitHub	X	X	X	X			
BLE_Mesh_SensorMotion (sensor_motion) (Emulate Motion Sensor)	GitHub	X	X		X			
BLE_Mesh_LowPowerLED (low_power_led) (Emulate Low Power LED)	GitHub	X	X	X	X			

BLE_Beacon (beacon) (Beacon app for Eddestone and iBeacon)	Installed & GitHub	X		X	X	X	X	X
BLE_EnvironmentSensing Temperature (env_sensing_temp) (Environmental Sensing app using Environmental Sensing Service (ESS))	Installed & GitHub	X			X			
Watch (Watch reference app that demonstrates audio source, AV remote control, Apple media (AMS) and Apple notification services (ANCS))	Installed & GitHub	X			X		X	X
EmptyWicedBluetooth (empty_wiced_bt) (Starter bare bone app provided as template)	Installed & GitHub	X		X	X	X	X	X
hello_sensor (Sample peripheral app)	Installed & GitHub	X		X	X	X	X	X
hello_client (Sample central app)	Installed & GitHub	X		X	X	X	X	X
ble_keyboard (Sample application for BLE keyboard)	GitHub	X			X			
ble_mouse (Sample application for BLE mouse)	GitHub	X			X			
ble_remote (Sample application for BLE remote)	GitHub	X			X			
audio gateway (Audio Gateway sample app)	Installed & GitHub						X	X
pbap client (Phonebook Client sample app)	Installed & GitHub						X	X

Name	Source							
map_client (MAP Client)	GitHub						X	X
low_power_20819 (Controlled Low power example)	GitHub	X		X	X	X		
low_power_sensor (Low power sensor app)	GitHub						X	X
Snip								
bac/bas (Battery client and server app)	GitHub	X		X	X	X	X	X
anc/ans (Alert Notification client and server)	GitHub	X		X	X	X	X	X
hrc/hrs (Heart rate client and server app)	GitHub	X		X	X		X	X
le_coc (Demonstrate LE connection oriented channels)	GitHub	X		X	X	X	X	X
HAL apps - dual_spi_master, spi_slave_sensor (Apps that demonstrate use of HAL APIs to use peripherals) -	GitHub	X			X	X		
HAL apps - ADC	GitHub	X		X	X	X	X	X
HAL apps - GPIO, PUART	GitHub	X		X	X	X	X	X
HAL apps - PWM	GitHub	X		X	X	X		
HAL apps - i2c_master	GitHub							
OTA (ota_firmware_upgrade) (Sample demonstrates how to implement secure over the air FW upgrade over BLE)	GitHub	X	X		X	X	X	X
Throughput (throughput_test) (multi lever throughput demo)	GitHub	X			X	X		

mesh (Sample apps included for power on/off, level, battery, light control, transition location, property, time, scene, scheduler, provision, and sensor (client & server).)	GitHub	X	X	X	X				
find me (BLE_FindMe) (Find Me profile example)	GitHub	X			X	X		X	
spp (SPP example)	GitHub	X		X	X	X	X	X	
Host/MCU									
		OS							
Client Control (Host/MCU sample application with UI for controlling various BT applications over WICED HCI interface)	Installed	Windows, OSX, Linux							
Mesh Client Control (Host/MCU app for controlling embedded mesh apps (ClientControl and QtClientControl))	Installed	Windows, OSX, Linux							
Utilities									
BT Spy (Trace utility to view protocol and generic trace messages from the stack,profiles and app.)	Installed	Windows, OSX, Linux							
WMBT (Manufacturing test tool to test and verify the RF performance of the BT devices in WICED HCI mode)	Installed	Windows, OSX, Linux							
Peer Apps									
Mesh apps (Mesh peer apps on Android, Windows and iOS)	Installed	Android, Windows, IOS							
OTA (peer apps for OTA)	Installed	Windows, Android							

Middleware

The following middleware (libraries) will be included in BT SDK1.3.

Middleware	Description
Grouping:	*Bluetooth Low Energy Profile Libraries*
bat_client_lib	Battery Service Client Profile library
beacon_lib	Library providing common beacon API support for both iBeacon and Eddystone
hidd_lib	BLE HID Device library
hrc_lib	Heart Rate Client library.
hrs_lib	Heart Rate Server library.
anc_lib	Alert Notification Client library
ans_lib	Alert Notification Server library
Grouping:	*Bluetooth Protocol Libraries*
avrc_controller	AVRC Controller library
avrc_target	AVRC Target library
spp_lib	Serial Port Profile library
obex_lib	Object Exchange library
pbap_lib	Phone Book Access Client library

map_lib	MAP Client library
a2dp_sink_profile (Pro)	A2DP Sink profile library
handsfree_profile (Pro)	Hands-Free profile library
Grouping	*Hardware Libraries*
ambient_light_sensor_lib	Ambient Light Sensor library for Mesh kit (CYBT-213043-MESH)
pir_motion_sensor_lib	PIR library (Motion Sensor) for Mesh kit (CYBT-213043-MESH)
thermistor_ncp15xv103_lib	Library providing API implementation for NCP15XV103E03RC thermistor
thermistor_ncu15wf104_lib	Library providing API implementation for NCU15WF104F60RC thermistor
button_manager	Button management support
led_manager	LED management support
Grouping	*Miscellaneous*
fw_upgrade_lib	Over-The-Air Firmware Upgrade support. Consists of common and chip specific library components.
gatt_utils_lib	BLE GATT utilities library
Grouping	*Application Feature*

wpl_lib		Power Estimator (CyPE) is enabled in app when application feature POWER_ESTIMATOR is set to yes.

Hardware Platform Support

	Chip	Platform Name	Notes
1	20819-A1	CYBT-213043-MESH Kit	8Mb SPI Flash 1x User Button 1x RGB LED - Temperature Sensor (thermistor) - Ambient Light Sensor (ALS) - Motion Sensor (PIR)

2	20819-A1	CYW920819EVB-02	8Mb SPI Flash 2x User LEDs 1x User Button 9-Axis Motion Sensor (connected via I2C) - Temperature Sensor (thermistor)
3	20819-A1	CYBT-213043-EVAL	8Mb SPI Flash 1x User LEDs 1x User Button
4	20820-A1	CYW920820EVB-02	8Mb SPI Flash 2x User LEDs 1x User Button 9-Axis Motion Sensor (connected via I2C) - Temperature Sensor (thermistor)

5	20721-B2	CYW920721B2EVK-01	Base board • 2x User LEDs • 1x User Button • 9-Axis Motion Sensor (connected via I2C) • Temperature Sensor (thermistor) Audio shield board • 4x User Buttons • analog and digital mics • audio codec
6	20820-A1	CYW989820EVB-01	CYW989820WCD1 Automotive Evaluation Board
7	20719-B2	CYW920719B2Q40EVB-01	• 2x User LEDs • 1x User Button • 9-Axis Motion Sensor (connected via I2C) • Temperature sensor (thermistor)