



Symbisa HY-000003

User manual



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Getting Started

1.1 IMPORTANT! Before the first use of Symbisa



Before attempting to use the device for the first time, please follow the instructions to update the device's firmware as described in <u>Section 2.1: Updating</u> <u>your Symbisa</u>. It will not work otherwise.

1.2 Overview

- 1. Screen
- 2. Button
- 3. Security Seal
- 4. Light Sensor
- 5. Temperature/Humidity Sensor
- 6. Get Started URL
- 7. Firmware Version
- 8. 12 Digit Serial Number
- 9. Battery Level
- 10. Product Warning
- 11. 15 Digit IMEI Number
- 12. 15 Digit IMEI Number with Barcode
- 13. Regulatory Icons
- 14. Safety Information
- 15. Product label
- 16. Micro USB Port

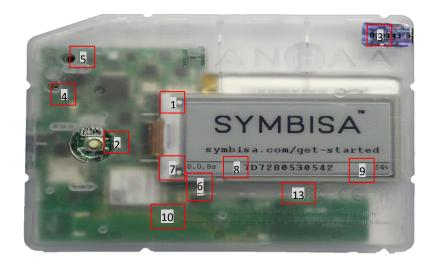






Figure 1 - Symbisa Product Views

1.3 Registering with Symbisa

To use the Symbisa product you first need to create an account on the Symbisa web site.

Go to the URL shown on the Getting Started URL card and your Symbisa screen and create an account by clicking on the register link. Once you have completed the registration process you will be sent an email to confirm your details. Check your email address for a confirmation link and log in to your new Symbisa account.



Figure 2- Getting Started URL Card

1.4 Devices

- To add a Symbisa device to your account, log into the Symbisa portal and then click on the 'Add Device' button which is located at the top right-hand side of the screen.
- Key in your 12 Digit Serial Number (8) which can be found on the screen of your device and click next
- Key in the requested digits from your IMEI number (11) for validation which can be found on the Product Label (15) on the back of the device
- Assign an Alias to the Device (Optional) or click on the Skip for now link. An alias allows you to name your device within the portal. You can change the Alias later on the device page by clicking on the pencil icon.
- 500 credits are added to your account for each device registered
- Once you have added a device you can view all your devices in the Devices tab

	Q Search for a Device							L Account
e	DEVICES							+ Add devices
		ACCOUNT DETAILS	ALIAS	MODEL NUMBER	PRODUCT NAME	IMEI	FIRMWARE VERSION	
DEVICES CREDITS	44B26BCFE7DE		Demo 🖋	P16PT001	Symbisa T01	861359030398554		Dashboard Esttings
SUPPORT								



- Clicking on the Dashboard (orange) button takes you to the dashboard view, where you can view the device data (<u>Section 3.1</u>).
- Clicking on the *Settings* (green) button in the devices page will bring up a page that will allow customisation of the device (*Section 1.5*).

1.5 Managing your devices

	Q. Search Far a Device	L Account-
	REMOTE CONFIGURATION FOR DEVICE: 448268CFE7DE Message	
	minutes	/
DEVICES	Bar Code	
CREDITS	1	1
SUPPORT	Interval@	
	1	1
	This is the device ping interval. This value can only be modified by device owner as it will impact billing.	
	ASSIGN DEVICE 448268CFE7DE O A total of 3 users have access to this device	
	Figure 4. Device Cattings Dage	
	Figure 4 - Device Settings Page	

- Message Allows a message of up to 24 characters to be sent to and displayed on the device
- **Bar Code** Allows a bar code of up to 15 characters to be sent to and displayed on the device
- Interval Allows the owner of the device to set the interval in which the device communicates and passes data
- Assign Device Allows the owner to assign and remove visibility of individual devices to other users so that they can view and use the data

1.6 Adding Credit

Credit bundles can be added to your account through the *Credits* tab.

- Click on Add Credits in the Credits tab
- Enter your Credit Bundle ID that you obtained when purchasing your credits
- A history of your credit bundles is available to view on this page

2 Using your Symbisa

2.1 Updating your Symbisa

Before you can use your Symbisa device for the first time, an update of the firmware version is required. The Symbisa update installer and the firmware file can be found in the Symbisa Portal once you are logged in under the **Resources** tab.

Download the Symbisa Updater and the

- firmware file
- Install the Symbisa updater to your machine and run the application
- Click on the *Choose Firmware (SFP file)* button and select the firmware file that you downloaded from the Symbisa portal
- Connect your Symbisa device to your PC using a micro USB cable, only once you see the Symbisa updater on the screen as shown in Figure 5 (Make sure that the Symbisa device is switched off)
- Click on the START button and wait for the firmware install to complete

For troubleshooting or support, please visit <u>http://support.hanhaa.com</u>



Figure 5 - Symbisa Updater

2.2 First Use

After you have registered and updated your Symbisa device successfully, you can now turn it on. To turn on the Symbisa device, simply press the button. You will see the screen flash for a second or 2, and then it will display its operational screen. On first use of Symbisa, you must wait about a minute for it to make the first connection.



1.Symbisa Splash	2.Interval Level
3.GSM/GPRS connection	4.GPS fix available
5.Battery charging	6.Custom Message
7.Custom Barcode	8.Firmware Version
9.Serial Number	10.Battery Level

Figure 6 - Symbisa Screen Layout

To turn off your Symbisa device, simply hold the button for about 5 seconds, until you see the screen flash and release.

2.3 Changing Interval

You can control the rate at which you Symbisa device sends data. This can be done on the settings page as shown in section <u>1.5 Managing your devices</u>. The settings page can be reached from the devices page, by clicking on the settings button shown next to the relevant Symbisa device.

3 Viewing your Data

There are a few ways that you can view your data:

- Through the Dashboard, accessible via your portal
- Via the custom functions available through the Symbisa Add in for Office 365 Excel
- Via the custom functions available through the Symbisa Add-in for Microsoft Office Online
- Via the use of APIs available

3.1 Dashboard

Log in to your account in the Symbisa Portal and locate the device you want to view in the devices tab. Click on the *Dashboard* button to view a dashboard of the Symbisa devices data. In the top right of the page, you can set the interval in which the page refreshes. You can also filter your data to display only a specific date and time range

To view a complete line by line sheet of your data, click on the Symbisa's *Serial Number* or *Alias* that is displayed on the top left and then click on *Track Details*.

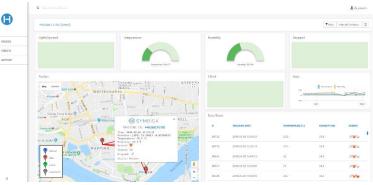


Figure 7 - Symbisa Dashboard

	Q Search I												🚨 Accoun	it.
e	448268C7	E7DE [Demo]									04	renticed @	val: 1 minute - 1	ø
- DEVICES			TIME	SERIAL NUMBER	BATTERY		TEMPER		ORENT =	VERSI =	ug =	INT =	STE =	M
CREDITS	66752	2018-05-02 12:43:21	2018-05-02 12:43:11	448268CFE7DE	87	0	23-2	53.8	0	0.0.1	259.52	1	0	1
SUPPORT	88736	2018-05-02 12:42:18	2018-05-02 12:42:04	44B26BCFE7DE	87	0	23.2	53.8	0	0.0.1	259.52	1	0	0
	66525	2018-05-02 12:06:10	2018-05-02 12:06:00	44B26BCFE7DE	99	0	22	54.2	0	0.0.1	140.6	4	0	
	00511	2018-05-02 12:05:06	2018-05-02 12:04:55	44826BCFE7DE	88	0	22	54.2	0	0.0.1	149.6	1	0	0
	88346	2018-05-02 11:42:46	2018-05-02 11:42:37	44B26BCFE7DE	0.0	0	24.7	40.3	4	0.0.1	44.92	1	0	- 1
	00332	2018-05-02 11:41:43	2018-05-02 11:41:09	44826BCFE7DE	87	0	24.7	48.3	4	0.0.1	44.92	1	0	0
	88325	2018-05-02 11:39:46	2018-05-02 11:39:12	44B26BCFE7DE	90	0	26	44.4	0	0.0.1	175.28	1	0	0
	66312	2018-05-02 11:36:04	2018-05-02 11:35:50	448268CFE7DE	84	0	25.4	49.6	0	0.0.1	216.18	2	0	а
	88.008	2018-05-02 11:34:22	2018-05-02 11:33:50	44826BCFE7DE	82	0	24.5	51.7	0	0.0.1	211,47	z	0	z
	88301	2018-05-02 11:32:24	2018-05-02 11:31:50	44B26BCFE7DE	81	0	23.4	54.7	0	0.0.1	214.32	2	0	1
	00201	2018-05-02 11:30:04	2018-05-02 11:29:52	44826BCFE7DE	01	0	23.5	56.4	0	0.0.1	208.32	2	0	0
	88764	2018-05-02 11:27:07	2018-05-02 11:26:57	44B26BCFE7DE	80	0	22.2	54.1	0	0.0.1	240.4	2	0	1
	66277	2018-05-02 11:25:08	2018-05-02 11:24:59	44826BCFE7DE	80	0	22.1	54.4	0	0.0.1	117.12	2	0	0
«											1 to 13 of 9,	000 14 4 P	age 1 of 700 > :	21

Figure 8 - Symbisa Dashboard Track Details

This data can be downloaded in a file and saved to your computer to be viewed locally.

3.2 Microsoft Office 365 Excel

To use the add-in with Microsoft Excel Online, please see Section 3.3.4.

The add-in for Microsoft Excel is currently available for use on Windows with the Insiders Build version of Office 365 only until October 2018. If you do not have a current subscription to Microsoft Office 365, a free developers licence can be obtained. After October 2018, the add-in will be able to use from Microsoft app store, for any version of Microsoft Office 365, and the process will be much more simpler and user friendly.

3.2.1 Obtaining a Developers Licence

To obtain a year's free developers licence for Microsoft Office 365 to use with Symbisa while it is in Developers Preview Mode, visit: <u>https://developer.microsoft.com/en-us/office/dev-program</u>.

Stage 1: How to join the Office 365 Developer Program >> Follow all the steps on this page.

https://docs.microsoft.com/en-us/office/developer-program/office-365-developer-program

Stage 2: How Set up an Office 365 developer subscription >> Follow section "Set up your subscription" and "Configure the subscription"

https://docs.microsoft.com/en-us/office/developer-program/office-365-developer-program-getstarted

Please note: Once you have obtained and assigned your licence(s), follow the steps below to obtain the Insiders Build version of Microsoft Office. Do not install the version of Office offered in the Developers portal.

3.2.2 Installing the Insiders Build version of Microsoft Office (Until October 2018)

Currently, the add in only works with the Insiders build version of Microsoft Office 365. Depending on your Microsoft Office Licence, there are 2 different methods to obtain an Insiders Build version:

- If you have a Business, Enterprise or Developers licence for Office 365
- If you have a Commercial licence for Office 365

3.2.2.1 If you have a Business, Enterprise or Developers licence for Office 365:

- 1. Download the Office Deployment Tool from Microsoft by following the link: <u>https://www.microsoft.com/en-us/download/details.aspx?id=49117</u>
- 2. After downloading the Deployment Tool, double click OfficeDeploymentTool.exe to extract the Setup.exe file and the configuration.xml file. Be sure the version of setup.exe is at least 16.0.7407.3600.
- 3. Use a text editor (like Notepad) and edit the configuration.xml file to make the following changes to the configuration section and replace it with:

<Configuration>

```
<Add OfficeClientEdition="64" Channel="InsiderFast">
<Product ID="0365BusinessRetail">
<Language ID="en-us" />
</Product>
```

</Add>

<!-- <Updates Enabled="TRUE" Channel="Monthly" /> -->

<!-- <Display Level="None" AcceptEULA="TRUE" /> -->

<!-- <Property Name="AUTOACTIVATE" Value="1" /> --> <Logging Level="Standard" Path="D:\office-logs" /> </Configuration>

This installs a 64-bit version of Office 365 Business in English from the Office Content Delivery Network (CDN) on the Internet. Office will also get automatically updated from the CDN when a new Office Insider Fast build is available.

Please Note: If you want to install the 32-bit version, use 32 for the OfficeClientEdition setting.

4. Copy setup.exe and configuration.xml to the computer where you want to install Office. An Internet connection is required to install Office.

Please Note: If office is already installed on the computer, you need to uninstall Office and restart the computer before performing the next step.

5. Run the command prompt by navigating to the start menu and typing in *cmd*. Right click cmd.exe and select 'Run as Administrator'. Navigate to the folder where you copied the files by typing *chdir <filePath>* and run the following command:

Setup.exe /configure configuration.xml

This copies the Office files from the CDN on the Internet to the computer and starts the installation process.

 After the installation is complete, open an Office app, such as Word, and go to File > Account. Under the Office Updates section, you should see text that includes "Office Insider Fast."

3.2.2.2 If you have a Commercial licence for Office 365:

- 1. In any Office 2016 app, click File > Account > Office Insider. Select the Get early access to new releases of Office box, specify an update level, and then click OK.
- 2. Visit the Additional Install Options page of My Account. Sign in with your Microsoft Account, if needed. In the Version menu, click the type of Insider build you want to install, and then click Install. If you already have Office 2016 installed on your Windows desktop, you do not need to uninstall it first. You'll be updated to the Office Insider build. If you don't see an Insider option on the Version menu, you may not have an active Office 365 subscription.

3.2.3 Installing the Add in (Until October 2018)

To use the Symbisa add in while it is still in preview mode, a manifest file is required. The Manifest file can be found and downloaded from the Symbisa Portal.

3.2.3.1 Prepare the manifest file:

a. Download the Symbisa-excel-add-in-manifest.xml file

b. Move the file to a folder on your computer

3.2.3.2 Share a folder:

- c. Right-click the folder and choose Properties.
- d. Open the Sharing tab.
- e. Copy the Network path to use in step *i*.
- f. On the Choose people ... page, add yourself and anyone else with whom you want to share your add-in. If they are all members of a security group, you can add the group. You will need at least Read/Write permission to the folder.
- g. Choose Share > Done > Close.

3.2.3.3 Specify the shared folder as a trusted catalogue:

- h. Open a new document in Excel.
- i. Choose the File tab, and then choose Options.
- j. Choose Trust Centre, and then choose the Trust Centre Settings button.
- k. Choose Trusted Add-in Catalogues.
- I. In the Catalogue URL box, enter the full network path to the shared folder copied in step *e*, and then choose Add Catalogue.

Office Add-ins

MY ADD-INS | SHARED FOLDER | ADI

- m. Select the Show in Menu check box, and then choose OK.
- n. Restart the Office application so your changes will take effect.

3.2.4 Using the Symbisa Add in (Microsoft Office 365 and Microsoft Excel Online)

In Excel, under the Insert tab, click on the My Add-ins button. In the window that pops up, click on the Shared folder tab and select the Hanhaa Symbisa Add-in and click on the Add button.

The Symbisa add in should now be available for to use whenever you open Excel.

Mani	fest Prop	erties			×					
General	Sharing	Security	Previous Versions	Customize						
Netw \\DE	Network File and Folder Sharing Manifest Shared Network Path: \\DESKTOP-26JCKSN\Users\Documents\Manifest Share Advanced Sharing									
Set c adva	Advanced Sharing Set custom permissions, create multiple shares, and set other advanced sharing options.									
Peop comp	Password Protection People must have a user account and password for this computer to access shared folders. To change this setting, use the <u>Network and Sharing Center</u> .									
Close Cancel Apply										

Figure 9 - Shared Folder Properties

Figure 10 - Office Add in Page

Under the Home tab, click on the Blue Symbisa Icon and a side pane will pop up. Enter your credentials that you made when registering on the Symbisa Portal.

File Home Inse																	
aste	Calibri B I U •	• 11 • A • 🔲 • 🔷 • 4	, = = ■	 ởr đ^br Wrap Text e ≠ ≠ 100 Merge & Center 	General	* Exercise	nal Format as	Normal Check Cell	Bad Explanatory	Good Input	Neutral Linked Cell	Calculation	insert	Delete Format	AutoSum	ZY P	SYMBISA
Clipboard 5		Font	6	Alignment	- Number	5	9 10012		St	yles				Cells		diting	SYMBISA Add-In

Figure 11 - Microsoft Excel Symbisa Icon

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A list of your devices will pop up with Serial Number and Aliases. Clicking on the arrow will provide the latest sensor details of the Symbisa.

Enter the Symbisa Serial Number or Symbisa Alias that you wish to query into a cell. To query a sensor, enter a custom function referencing the Symbisa Serial number or Alias into the cell that you wish to display the data. A reference sheet for the custom functions can be found in the Symbisa Add in sidebar by navigating to *Settings>Reference Sheets* and in the resources tab in the Symbisa Portal.

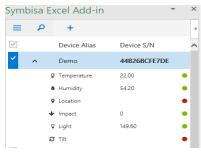


Figure 12 - Excel Add in Overview

3.2.4.1 Custom Functions

In Excel, with the Symbisa add in running you can type into any cell to bring up the custom functions. All Symbisa functions are constructed as: *=Symbisa.[Custom Function]([Serial Number])* and have to reference either a cell where the device serial number is contained, or has to contain the serial number within the function itself. There are 4 types of custom functions that you can call upon:

Table 1 - Custom Functions

=Symbisa.get_[SENSOR]	Pulls up a static value, at the time of the request					
=Symbisa.stream_[SENSOR]	Pulls up a value that is constantly updating					
=Symbisa.history_stream_[SENSOR]	Pulls up values that are constantly updating across a					
	number of cells to provide a dynamic history					
=Symbisa.send_[SENSOR]	Allows the sending of data to be displayed on the device					

These functions are used to call on data from the sensors that are on board the device. The following sensors can be called by the get, stream and history_stream functions:

- Battery
- Date
- Drop
- Humidity
- Interval
- Latitude
- Light
- Longitude
- Orientation
- Pressure
- Step Counter
- Temperature
- Time

The send functions can send data to be stored and displayed on the device:

- Message (up to 24 Characters)
- Bar code (up to 15 Characters)
- Interval (minutes)

Please note: The commands are not case sensitive.

3.2.4.1.1 Custom Functions Format

The get functions are created by selecting a cell, and then typing =Symbisa.get_[Sensor]([Serial Number]).

SUI	v	× ✓ fx =SY	'MBISA.GET_	TEMPERATU	RE(a1)			
	А	В	С	D	Е			
1	45CD9162RD27							
2								
3								
4		=SYMBISA.GET_TEMPERATURE(a1)						
5								

Figure 13 - Get Function

The stream functions are created by selecting a cell, and then typing =Symbisa.stream_[Sensor]([Serial Number]).

B4	-	$\times \checkmark f_x$	=.SYMBISA.STREAM_TEMPERATURE(A1							
	А	В		С	D	Е				
1	45CD9162RD27									
2										
3										
4		=.SYMBISA.STREAM_TEMPERATURE(A1)								
5										

Figure 14 - Stream Function

The history stream functions are created by highlighting a few cells (up to 10), and then typing

=Symbisa.history_stream_[Sensor]([Serial Number]). You <u>must</u> then press the combination of Ctrl, Shift and Enter on your keyboard for the function to be correctly displayed.

SUN	∧ - I >	< 🖌 f.	✓ <i>f</i> _x =symbisa.history_stream_temperature(A1)							
	А	В	С	D	E	F	G			
1	45CD9162RD27									
2										
3										
4		=SYMBISA	HISTORY_S	TREAM_TE	MPERATU	RE(A1)				
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										

Figure 15 - History Stream Function

SUN	v - 1	\checkmark \checkmark f_x =SY	MBISA.SEND	_MESSAGE(#	A1,B1)
	А	В	С	D	E
1	45CD9162RD27	Hello World!			
2					
3					
4		=SYMBISA.SEND_I	MESSAGE(A	A1,B1)	
5					

Figure 16 - Send Data Function

The send functions are used to send a message and/or a barcode to the device to display on the screen. They reference the serial number, and a message – both of which can either be typed out into separate cells, or directly into the function itself. They are created by selecting a cell, and then typing =Symbisa.send_[Function]([Serial Number],[Data]).

As with the Serial Number and the Alias, you have the option of entering the message and barcode, either into a cell and reference the cell as shown above, or you can enter it directly into the formula.

So =SYMBISA.SEND_MESSAGE(A1,B1) is the same as =SYMBISA.SEND_MESSAGE(45CD9162RD27,"Hello World!")

3.2.4.1.2 Template

To help you get started, you can use the template found in the Resources section of the Symbisa Portal. The template is populated with a table and data visualisations for some of the sensors.

3.3 APIs

To use the APIs, login to the Symbisa portal and you will see API KEYS and API in the left-hand pane.

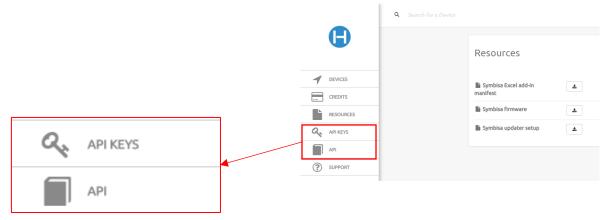


Figure 17 - API Location

3.3.1 API Keys

To generate an API key, navigate to the API KEYS page, and click on the *Generate API Key* link. A window will pop up where you can name the API and select the duration.

	Generate API Key	
Name:		
Test		
/alidity: 1 year		•
-		•
1 year 30 days 90 days		Ţ
30 days		Ţ

A list of API keys that have been generated will display on this page. The Keys are valid for the period that was set when they were generated. On the right-hand side of the page, you will see your API Signature Client ID and Client Secret. You can copy all these quickly by pressing the icon on the right.

	API KEYS			I		
	Name	Created	Value	Status		
DEVICES	Test	2018-08-06		0 0		
CREDITS	1656	10:37:16	445000030000		• • •	
RESOURCES					API Signature	
API KEYS	Generate AP	l Key			Client Id	
API					NUMBER OF STREET, SAME AND ADDRESS OF STREET, ST	1
API					Client Secret	
SUPPORT					groundated	•
					Grant Type	
					client_credentials	5



Figure 18 - Generate API Key

3.3.2 API

The API page provides access to the different API requests that can be made. Clicking on the dropdown found on the right-hand side on the API page, allows you to select between the 3 different types of APIs available:

- User Account and Authentication
- Device Messaging
- Portal

© SYMBISA		uaa (/uaa/v2/api-docs) uaa (/uaa/v2/api-docs) devicemessaging (/devicemessaging/v2/api-docs) portal (/portal/v2/api-docs)	•
	Figure 20 - API Dropdown		

You can cycle through the List of APIs and request information against your devices. Each item in the list provides Response Class, Parameter input and Response codes.

O SYMBISA	uaa (/uaa/v2/api-docs)
User Account and Authentication Server API User Account and Authentication Server API documentation access-token-resource : Access Token Resource	Show/Filde List Operations Expand Operations
token-endpoint : Token Endpoint	Show/Hide List Operations Expand Operations
O SYMBISA	devicemessaging (/devicemessaging/v2/api-docs) 🔻
Device Messaging API Device Messaging API documentation device-bar-code-resource : Device Bar Code Resource	ShowiFide List Operations Expand Operations
device-interval-resource : Device Interval Resource	Show/Hide List Operations Expand Operations
device-message-resource : Device Message Resource	Show/Hide List Operations Expand Operations
SYMBISA	portal (/portal/v2/api-docs)
Portal API Portal API documentation	
device-data-controller : Device Data Controller	Show/Hide List Operations Expand Operations

Figure 21 - API List Items

3.3.3 Web API String Data Parameters

3.3.3.1 Environmental Sensors

PARAMETER	DESCRIPTION	Beta Version
Average Temperature	Average temperature value within the reporting interval in degree Celsius, formatted with 1 decimal value. i.e. 19.5°C (Sampling frequency 1 acquisition per min)	YES
Maximum Temperature	Maximum temperature value within the reporting interval in degree Celsius, formatted with 1 decimal value. i.e. 25.5°C	YES
Minimum Temperature	Minimum temperature value within the reporting interval in degree Celsius, formatted with 1 decimal value. i.e. 16.5°C	YES
Average Humidity	Average humidity value within the reporting interval in RH percentage, formatted with 1 decimal value. i.e. 45.6 %RH (Sampling frequency 1 acquisition per min)	YES
Maximum Humidity	Maximum humidity value within the reporting interval in RH percentage, formatted with 1 decimal value. i.e. 76.6 %RH	YES
Minimum Humidity	Minimum humidity value within the reporting interval in RH percentage, formatted with 1 decimal value. i.e. 32.6 %RH	YES
Average Pressure	Average pressure value within the reporting interval expressed in hPa, formatted as integer. i.e. 997 hPa (Sampling frequency 1 acquisition per min)	YES
Maximum Pressure	Maximum pressure value within the reporting interval expressed in hPa, formatted as integer. i.e. 997 hPa	YES
Minimum Pressure	Minimum pressure value within the reporting interval expressed in hPa, formatted as integer. i.e. 997 hPa	YES
Average Light	Average light value within the reporting interval expressed in Lux, formatted as integer. i.e. 1400 lux (Sampling frequency 1 acquisition per min)	YES
Maximum Light	Maximum light value within the reporting interval expressed in Lux, formatted as integer. i.e. 1400 lux	YES
Min Light	Min Light value within the reporting interval expressed in Lux, formatted as integer. i.e. 1400 lux	YES

Table 2

3.3.3.2 Accelerometer & Gyroscope

PARAMETER	DESCRIPTION	Beta Version
Tilt	Interrupt functionality - Notify an angular variation of more than 35° in any direction. (this parameter could be the cumulative number of tilts)	YES (Accumulation)
Free fall	Interrupt functionality - Notify a freefall event of 50cm.	YES (Accumulation)
Orientation	<i>Interrupt functionality</i> - Notify the side of the device facing up.	YES (Report latest)
Step Counter	Number of steps accumulated since the start of the application. Integer number.	YES

Table 3

3.3.3.3 GSM / GPRS

PARAMETER	DESCRIPTION	Beta Version
Cell Info	Notify the Engineering parameter of the (CellID, MNC, MCC, LAC)	YES
Signal Quality	Notify the GSM signal quality (RSSI) according to Quectel scale.	YES

Table 4

3.3.3.4 GPS

PARAMETER	DESCRIPTION	Beta Version
Latitude & Longitude	NMEA format for GPS coordinates	YES
Altitude	- GGA	YES
Horizontal Dilution of Precision	- GGA	YES

Table 5

3.3.3.5 Others

PARAMETER	DESCRIPTION	Beta Version
USB	Interrupt functionality -	YES
plugged/unplugged	Notify the status of the USB port	

Charging / Not Charging	Notify the status of the charging	YES
SOC (State of Charge)	Notify the battery percentage	YES
Button press	Interrupt functionality - Notify if the button has been pressed	YES (Accumulation)
Date & Time	Notify the RTC date and time based on GSM or GPS time	YES (If available)
Firmware Version	Firmware version (Mandatory*)	YES
Serial Number	Serial Number of the Device (Mandatory*)	YES
Interval	Interval expressed in minutes	YES
Message Counter	Incremental count of messages generated by device since last activated.	YES

Table 6

3.3.3.6 On Screen Display Functions

PARAMETER	DESCRIPTION	Beta Version
Message	Send a message to be displayed on the device screen, alpha-numeric message (max 26 characters)	YES
Barcode	Send a Barcode to be displayed on the device screen, Barcode format - Code39 (max 15 characters)	YES

Table 7

4 Specifications

4.1 General

Para	Parameter	Specification
1	Battery life	15 days cycle time based upon an hourly status reporting interval.
2	Location accuracy	Standard GNSS resolution, 3 to 300 meters (accuracy provided with PDOP Position Dilution of Precision parameter)
4	Shock detection	Up to ±16g
5	Ambient light detection wavelength	560nm
6	Ambient light detection light threshold	0.01 lux to 83k lux
7	Pressure sensing range	260 to 1260 hPa <absolute against="" need="" operating="" pressure="" range="" range,="" to="" validate=""></absolute>
8	Pressure sensing resolution	±1 hPascals RMS
9	Humidity sensing range	5 to 90% non-condensing
10	Humidity sensing accuracy	±3.5% rH, 20 to +80% rH, ±5% rH 0 to 100%
11	Temperature sensing accuracy	±1°C 10 to +50 °C
12	Temperature sensing resolution	± 0.5 °C
13	Display	2.9" low power consumption E-paper display

Table 8

4.2 Electrical Specification

4.2.1 GSM Radio Performance

Para	Parameter	Specification
1	Band Support	Quad Band, R99 BANDS: GSM 850, GSM 900, GSM 1800, GSM 1900
2	GPRS Class	Multi-slot class 12/10/8
3	Radio Standards Compliance	See Regulatory section for radio standards compliance.

Table 9

4.3 Device Physical Specification

4.3.1 Physical Design – General

Para	Parameter	Specification
1	Weight – unpackaged	

2	Weight – packaged	160g
3	Product dimensions	130 mm (W) x 100 (H) x 10.5 mm (D)
4	Flammability	Case meets UL94-HB75
Table 10		

Table 10

4.3.2 Package Contents

As standard the Symbisa comes with a quick start card in the box. The card will contain a URL that directs to symbisa.com/get-started.

The following accessories are recommended to be used with Symbisa.

4.3.2.1 AC Power Adaptor

If an AC power adaptor is to be used to power or charge the Symbisa device, then it is recommended that the power adapter complying with the specification shown in **Error! Reference source not f ound.** is used.

Para	Parameter	Specification
1	Recommended power adapter manufacturer	PowerPax
2	Recommended power adapter model (UK)	SW4479B
3	Power supply input voltage	AC 90 to 264VAC at ~50/60Hz
4	Power supply output voltage	DC 5V @ 2.1A
5	AC plug type	To suit country of operation
6	DC plug type	USB micro B plug

Table 11

4.3.2.2 Connecting Cable

A USB cable with a standard A plug and micro B plug is required for connecting between the host PC or AC power adapter and the Symbisa device.

4.4 Environmental Specification

4.4.1 Operational

Para	Parameter	Specification
1	Temperature - operating	- 15 to +50 $^{\circ}\text{C}$ (limited by the operating temperature range of the lithium battery)
2	Humidity	5 to 90% non-condensing
3	Rate of change of temperature	Max 0.5 °C/min averaged over a period of 5 mins
4	Air Pressure	70 to 106 kPa

Table 12

4.4.2 Storage Transportation and Handling

Para	Parameter	Specification
1	Temperature - storage	-20 to + 60 °C (Storage at the extremes of this temperature range should not exceed more than 1 month)
2	Humidity	5 to 95% non-condensing
3	Rate of change of temperature	Max 0.5 °C/min averaged over a period of 5 mins
4	Air pressure	70 to 106 kPa

Table 13

4.5 Cellular Country Support

The Symbisa product has cellular support in the countries shown in Table 14.

	Country	ISO 3	Mobile Country Code
1	USA	USA	310, 311, 312, 313, 314, 316
2	Canada	CAN	302
3	Austria	AUT	232
4	Belgium	BEL	206
5	Denmark	DNK	238
6	Finland	FIN	244
7	France	FRA	208
8	Germany	DEU	262
9	Greece	GRC	202
10	Ireland	IRL	272
11	Italy	ITA	222
12	Luxembourg	LUX	270
13	Netherlands	NLD	204
14	Portugal	PRT	268
15	Spain	ESP	214
16	Sweden	SWE	240
17	UK	GBR	234
18	Bulgaria	BGR	284

19	Cyprus	СҮР	280
20	Czech Republic	CZE	230
21	Estonia	EST	248
22	Hungary	HUN	216
23	Latvia	LVA	247
24	Lithuania	LTU	246
25	Malta	MLT	278
26	Poland	POL	260
27	Romania	ROU	226
28	Slovenia	SVN	293
29	Slovakia	SVK	231
30	Gibraltar	GIB	266
31	Guadeloupe	GLP	340
32	Martinique	MTQ	340
33	Reunion	REU	647
34	French Guiana	GUF	340
35	Iceland	ISL	274
36	Liechtenstein	LIE	295
37	Norway	NOR	242
38	Croatia	HRV	219

Table 14

5 Support and Important Information

5.1 Support

Please use the Support webpages on the Hanhaa website to browse the Knowledge Base or if required to raise a support ticket.

https://support.hanhaa.com

5.2 Warranty

Please note, that the Symbisa warranty will be voided if: 1) There are any attempts to open the Symbisa device. 2) The security seal has been tampered with - *Each device comes with a security seal on the top right-hand corner of the device. If the seal is missing, or shows void, your warranty will be voided.*

5.3 Instruction for Safe Use

To avoid exposing the user to potential health risk or device malfunction, please follow the guidelines below.

5.3.1 Safe usage and Warnings!

Lithium polymer battery:

- Warning: Never use a damaged device, such as one with a cracked display or badly damaged rear cover, as it may cause injury or harm. In the event of damage to the Symbisa device it should be evaluated if repair is necessary by a Hanhaa approved service partner before further use is attempted.
- Warning: Never expose the device to flames.
- Warning: Never dispose of the device in a fire, as it may explode.
- Handle with care and keep in a clean and dust-free place.
- For best performance:
 - The device should not be operated in temperatures either below minus 10°C (+14°F) or above +45°C (+113°F).
 - $\circ~$ Always ensure the device is charged whilst the temperature is between +5°C (+41°F) and +45°C (+113°F).
- Warning: Never expose the device or battery to temperatures above +60°C (+140°F).
- Do not try to crush, distort, bend, drop or throw the device.
- There are no user serviceable parts inside, do not attempt to disassemble or modify the product.
- Any servicing should be carried out by a Hanhaa's approved supplier or service agent.

Mobile radio transceiver:

- **Warning:** Never attempt to use the device near pacemakers or other medical equipment without consulting with the instructions of the medical device and gaining approval of the relevant medical staff.
- Warning: Never the use the device in potentially explosive atmospheres.
- **Warning:** As a result of the containing a radio transmitter, this device may affect implanted medical equipment, such as pacemakers.
- **Warning:** Specific Absorption Rate (SAR) is used to measure radio frequency energy absorbed by the body when using a cellular device. To comply with the SAR regulations, do

not operate the device within 10mm from the human body. Do not cover the antenna with your hand as this affects call quality, power levels and can shorten the battery life. The SAR value is determined at the highest certified power level in laboratory conditions, but because the device is designed to use the minimum power necessary to access the chosen network, the actual SAR level can be well below this value.

Location functions:

- The Symbisa device contains location based functions and any such location resolving functionality is provided "As is" and "With all faults". Hanhaa cannot not make any representation or warranty as to the accuracy of such location information since it is dependent upon services outside of its control.
- The Symbisa device may not be able to provide uninterrupted or error free location information and may additionally be dependent on network service availability. Such location based functions may be impaired or inhibited in certain environments such as within or between buildings.

General Symbisa usage:

- Warning: The device is not a toy, keep out of children's' reach.
- Warning: Never use outdoors or in damp areas.
- **Warning:** The devices' battery should only be removed and replaced by a Hanhaa approved service agent. Any replacement battery shall be of the same type and qualified by Hanhaa. The use of a battery not approved by Hanhaa may present a risk of fire, explosion, leakage or other hazard.
- The device's performance depends on ambient temperatures, cellular coverage and reporting intervals.

If in doubt as to the device's proper function, have the device checked by an approved Hanhaa service agent before charging or using it.

5.4 RE Directive "Informal DoC" statement

Hanhaa Limited declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

For details, please access the following URL:

http://www.hanhaa.com/compliance

This radio equipment is intended to be used with the approved version(s) of software that are indicated in the EU Declaration of Conformity.

Wireless frequency bands and maximum output power: Frequencies: GSM GPRS/EDGE 850, 900, 1800 & 1900. Output Power: Class 4 (2W @850/900MHz) & Class 1 (1W @1800/1900MHz) Note: some frequency bands may not be enabled in some markets or operators.

5.5 WEEE Statement

This section is applicable in the European Union and other European countries with separate collection systems.



The Wheelie Bin Symbol (see above) on the device or on its packaging indicates that this device shall not be treated as household waste. Instead it shall be handed over to the appropriate collection point for the recycling of electrical and electronic equipment.

By ensuring this device is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this device.

5.6 FCC Statement for USA customers

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.