

The YoctoHub-GSM-3G-EU is a wireless-enabled module that can host three Yoctopuce modules to access them remotely through a 3G GSM cellular network (UMTS and HSPA). It can be powered either by a Micro-B USB cable and a regular phone charger, or a 5V battery pack.

The radio module supports the two GSM frequency bands 900 MHz and 1800 MHz used in Europa, Middle-East, Africa, Asia and Pacific. For a detailed list of frequency bands supported in each country, please refer to the Wikipedia page GSM\_frequency\_bands.

You can use the YoctoHub-GSM-3G-EU in the same way as a VirtualHub running on a little computer, but it is much easier to setup and maintain than a

computer. It is smaller and consumes less. It is compatible out-of-the-box with all existing applications using Yoctopuce API. As for the VirtualHub, it can run autonomously using HTTP callbacks.

Moreover, the YoctoHub-GSM-3G-EU features a built-in clock timer, that makes it possible to put the device into low-power deep sleep and wake-up automatically at predefined times. This makes it possible to reduce power consumption to 15uA while sleeping, which is crucial for applications running on battery or solar panels. The YoctoHub-GSM-3G-EU only needs a few seconds of wake-up time to post data on an web server using the HTTP callback.

You can connect three Yoctopuce modules directly, one of which can be fixed directly on the YoctoHub-GSM-3G-EU and connected using a Board2Board-127 connector. More devices can be connected, thanks to the YoctoHub-Shield extension. The YoctoHub-GSM-3G-EU can power Yoctopuce devices up to 2A.

The device is provided with an articulated antenna (9cm, with SMA connector) and a connection cable (uFL to SMA).

Warning: although the 3 downstream ports hosting Yoctopuce devices use micro-B USB connectors, the YoctoHub-GSM-3G-EU uses a specific protocol simpler than USB to talk to the devices. Therefore, it is not possible to drive or even to power a regular (non-Yoctopuce) device using the YoctoHub-GSM-3G-EU. It is not possible either to use a regular USB hub (such as the Micro-USB-Hub) on the downstream ports. If you need more downstream ports for Yoctopuce devices, you can use a YoctoHub-Shield.

## **Specifications**

Product ID	YHUBGSM3
USB connector	micro-B
Thickness	9.5 mm
Width	58 mm
Length	60 mm
Weight	34 g
Chipset	Telit UL865-EUD
Frequency	900 and 1800 MHz
IEC protection class	class III
Normal operating temperature	540 °C
Extended operating temperature <sup>‡</sup>	-2070 °C
USB consumption	100 mA
RoHS compliance	RoHS III (2011/65/UE+2015/863)
USB Vendor ID	0x24E0
USB Device ID	0x0060
Suggested enclosure	YoctoBox-HubWlan-Transp
Harmonized tariff code	8542.3190
Made in	Switzerland

<sup>&</sup>lt;sup>‡</sup> The extended temperature range is defined based on components specifications and has been tested during a limited duration (1h). When using the device in harsh environments for a long period of time, we strongly advise to run extensive tests before going to production.







For more information: www.voctopuce.com/EN/products/voctohub-asm-3a-eu