

# LoRa<sup>®</sup> Certification Customer Questionnaire



For Device Certification please complete sections 01 to 06.  
For Device Certification by similarity please complete all sections.

## COMPANY REQUESTING LORA CERTIFICATION

01 Customer		
	Name:	
	Address:	
	Postal code, City:	
	Country:	
	Contact person:	
	Email:	
	Phone:	
	Fax:	

02 Test report/Certificate Holder / Applicant same as Customer		
	Name:	
	Address:	
	Postal code, City:	
	Country:	
	Contact person:	
	Email:	
	Phone:	
	Fax:	

03 Manufacturer same as Customer same as Test report/Certificate Holder		
	Name:	
	Address:	
	Postal code, City:	
	Country:	

**04 Contact for technical questions during the tests**

Company name:	
Contact person:	
Email:	
Phone:	
Mobile Phone:	

**05 Contact for technical questions for certification by similarity assessment**

Company name:	
Contact person:	
Email:	
Phone:	
Mobile Phone:	

**GENERAL EUT (EQUIPMENT UNDER TEST) INFORMATION:****06 Device to be certified information ( including variant device to be certification by similarity)**

Product name:	
Kind of product:	
Series (if any)	
Hardware Version:	
Firmware Version:	
Typ of DUT:	Module      End Device/Sensor      others
LoRaWAN physical regional:	EU863-870      US902-928      CN779-787      EU433 AU915-928      CN470-510      AS923      KR920-923
Adaptive Data Rate (ADR)?	Yes No
Optional data rates supported?	DR6 (SF7BW250)      DR7 (FSK50)
Activation possibilities	Over the air      by personalization      both
Test According LoRaWAN™ Spec	V1.0      V1.0.1      V1.0.2 (e/o 12/2016) by similarity (also complete section 07)
If V1.0.2, does the device provide:	DIChannelReq and / or block of LinkADRReq Commands processing

06 Device to be certified information (including variant device to be certification by similarity)				
Yes	Type and Version of used Stack:	own	IBM	Stackforce
Yes		Version		
Yes	Output Power Range:			
Yes	Number / Type of Antenna(s)			
Yes	Antenna Gain:			
Yes	Radiated RF Performance (Via Alliance Process)	Yes	No	
Yes	Test sample information	production unit	identical prototype	
	<b>For OTA activation<sup>1</sup>:</b> End-device identifier (DevEUI) Application identifier (AppEUI) Application key (AppKey)			
	<b>For activation by personalization<sup>2</sup>:</b> End-device address (DevAddr) Application session key (AppSKey) Network session key (NwkSKey)			
Yes	Additional Wired Interfaces / Connections	Ethernet WAN PoE ISDN POTs ADSL VDSL Fibre with CAN/LIN USB RS- HDMI SCART Audio Port (for connection of Headset/Earphone) Antenna DALI interface (light ctrl.) DMX interface (light ctrl.) KNX interface (building ctrl.) others:	Cable length: outdoor outdoor outdoor outdoor  Laser Cable length: Cable length: Cable length: Cable length: Cable length: outdoor outdoor  Cable length:	m indoor indoor indoor indoor  LED m m m m m indoor indoor  m

<sup>1</sup>MSB Notation required <sup>2</sup>MSB Notation required

06 Device to be certified information (including variant device to be certification by similarity)		
Yes	Power supply:	AC by external power supply unit AC by internal power supply unit by external DC Battery incl. AC-charger Type of battery: Power over Ethernet (POE) / USB
Yes	Voltages:	Vnom:
		Vmax:
		Vmin:
Yes	Current consumption:	mA
Yes	Battery lifetime when continuously sending (only if battery operated device)	minutes
Yes	Dimensions (in cm) / Weight:	x x g
Yes	Operational Temperature Range:	Category I (General): -20°C to +55°C Category II (Portable equipment): -10°C to +55°C Category III (Equipment for indoor use): +5°C to +35°C Others:  For special applications, the manufacturer can specify alternative temperature ranges. This shall be reflected in the providers' product literature, e.g. the user manual.
Yes	Humidity Range:	% to %

**Text and description to be used on LoRa® Alliance Webpage after successful certification testing and approval through the LoRa® Alliance (60 words max):**

## CERTIFICATION BY SIMILARITY

07 Certification by similarity request		
Have you filled in the certification by similarity declaration form?	Yes	No
Have you filled in the certification by similarity declaration form? Which certification by similarity do you requests from the following list?  <b>Case 1:</b> End-device certification using a certified module  <b>Case 2:</b> Certification of module variant from a certified module  <b>Case 3:</b> Certification of an end-device variant from a certified end-device	Case 1,	Case 2,  Case 3,

08 Variant device differences to the referenced certified device		
Same LoRa transceiver	Yes	No
Same LoRa protocol SW version	Yes	No
Same MCU Core	Yes	No
Same Clock design and implementation	Yes	No
Brief description of the differences between the primary and the variant device		

## GENERAL INFORMATION ON THE REFERENCED CERTIFIED DEVICE

09 Referenced certified device information for certification by similarity					
Product name:					
Kind of product:					
Series (if any)					
Hardware Version:					
Firmware Version:					
Typ of DUT:	Module	End Device/Sensor	others		
LoRaWAN physical regional:	EU863-870 AU915-928	US902-928 CN470-510	CN779-787 AS923	EU433 KR920-923	
Adaptive Data Rate (ADR)?	Yes No				
Optional data rates supported?	DR6 (SF7BW250)		DR7 (FSK50)		
Activation possibilities:	Over the air	by personalization	both		

09 Referenced certified device information for certification by similarity		
	Test According LoRa-WAN™ Spec	V1.0 V1.0.1 V1.0.2 (e/o 12/2016) by similarity (also 02 needs to be filled in)
	If V1.0.2, does the device provide:	DChannelReq and/or block of LinkADRReq Commands processing
Yes	Type and Version of used	own IBM Stackforce
Yes	Stack	Version
Yes	Output Power Range	
Yes	Number / Type of Antenna(s)	
Yes	Antenna Gain	
Yes	Radiated RF Performance (Via Alliance Process)	Yes No
Yes	Test sample information	production unit identical prototype
	<b>For OTA activation<sup>3</sup>:</b> End-device identifier (DevEUI) Application identifier (AppEUI) Application key (AppKey)	
	<b>For activation by personalization<sup>4</sup>:</b> End-device address (DevAddr) Application session key (AppSKey) Network session key (NwkSKey)	
Yes	Current consumption	mA
Yes	Battery lifetime when continuously sending (only if battery operated device)	minutes
Yes	Dimensions (in cm) / Weight:	x x g
Yes	Operational Temperature Range:	Category I (General): -20°C to +55°C Category II (Portable equipment): -10°C to +55°C Category III (Equipment for indoor use): +5°C to +35°C Others:  For special applications, the manufacturer can specify alternative temperature ranges. This shall be reflected in the providers' product literature, e.g. the user manual.
Yes	Humidity Range:	% to %

<sup>3</sup>MSB Notation required <sup>4</sup>MSB Notation required