

# SLbase - Multitech Conduit Compatibility guidelines

Entry	Date	Author	Issue	Checked by
1	09/05/2016	JD	RevA	

Sensing Labs has developed an eco-system around the Senlab - LoRaWAN wireless sensor in order to give the customers a turnkey solution for private network needs.

A private network can be created thanks to the use of a LoRaWAN enabled gateway. In order to communicate from and to the end node devices a Network Server (NS) is required.

Therefore, Sensing Labs has developed a gateway with an embedded Network Server.

This NS is designed to accept any LoRaWAN compatible end node, however a few 'common ground' rules are necessary to guarantee inter-operability:

In addition to the respect of the LoRaWAN v1.0.0 specifications, the devices need to follow the specific rules listed in the table below:

Rule ID	Rule Description	ABP	OTAA
SLB-CG1	Usage of the private nwk sync word (0x12)	<input type="checkbox"/>	<input type="checkbox"/>
SLB-CG2	Default Join Accept Rx2 <ul style="list-style-type: none"> <li>Channel: 869.525MHz</li> <li>Data rate: DR0 (SF12/125kHz)</li> <li>Delay: 6s</li> </ul>	NA	<input type="checkbox"/>
SLB-CG3	Default downlink Rx2 <ul style="list-style-type: none"> <li>Channel: 869.525MHz</li> <li>Data rate: DR0 (SF12/125kHz)</li> <li>Delay: 2s</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
SLB-CG4	Needs to support LoRaWAN mandatory MAC commands: <ul style="list-style-type: none"> <li>'NewChanelReq'</li> <li>'RxTimingSetupReq'</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
SLB-CG5	On Device restart (Off -> On) Nwk parameters must be reset: <ul style="list-style-type: none"> <li>Default Join Accept Rx2</li> <li>Default Downlink Rx2</li> <li>Frequency plan</li> </ul> If FCountUp is not reset, an empty LinkCheckReq with FPort0.	<input type="checkbox"/>	<input type="checkbox"/>
SLB-CG6	Network dev address must be configurable on the device (out of bounds) <ul style="list-style-type: none"> <li>- Post production</li> <li>- Before activation</li> </ul>	<input type="checkbox"/>	NA
SLB-CG7	Device AppEUI must be configurable on the device (out of bounds) <ul style="list-style-type: none"> <li>- Post production</li> <li>- Before activation</li> </ul>	NA	<input type="checkbox"/>