

pikkerton ZigBee device FAQ

3rd of April, 2013



Question	Answer(s)
<p>ZBS does not join to the coordinator / the ZigBee network. ZBS device flashes 3x orange or red or coordinator doesn't see the device after node discover.</p>	<p>Set Network Join time (NJ) to 0xff on the coordinator, or set Network Join time (NJ) to 0xff on the router, if the end node is connected to a router.</p> <p>Press button on ZBS device 4x to reset to network defaults</p> <p>Press button on ZBS device long for device reset</p> <p>Set Stack Profile (ZS) to 0 or at least equal between coordinator and ZBS device (if so, configure 1st the ZBS, after that the coordinator / gateway). DIGI's CPx and pikkerton's ZBS factory default is 0.</p> <p>Verify your PAN ID. The coordinator is open for all devices with PAN-ID=0</p> <p>Verify your Scan Channels (SC) on the coordinator. Set it to 0x1FFE on the coordinator and respective maximum on routers and end nodes.</p> <p>Set Channel Verification (JV) of all routers (e.g. ZBS-110,ZBS-111,ZBS-112) to 1.</p>
<p>Devices seem to get kicked out from the network / message loss</p>	<p>Set Sleep Period (SP) to 2800 on the coordinator (2800x10ms=28s), or set Sleep Period (SP) to 2800 on the router, if the end node is connected to a router.</p>
<p>Which devices are routers ? Do I have to enable routing ?</p>	<p>All ZBS devices with a permanent power supply act as routers in the ZigBee network. Besides the points mentioned above nothing has to be configured for it.</p>
<p>How can I build an API frame to send it to a ZBS ?</p>	<p>Have a look here: http://ftp1.digi.com/support/documentation/90000976_K.pdf (3,13 MB), see page >=102</p>
<p>Where do I find the command set for the ZBS devices ?</p>	<p>You'll find the command set in the "Benutzerhandbuch" on the german product website (.de) or in the "interface control document" on the english product website (.com), both under the headline "Literature" of of the product website.</p>
<p>Where do I find further documentation about the general behaviour of the ZBS devices ?</p>	<p>You'll find it in the "Manual ZBS devices" under the headline "Literature" of the product website.</p>
<p>I get no answer from the ZBS after having sent a command to it.</p>	<p>Probably forgot an extra linefeed after the command ? Have a look at the interface control document.</p>

What is a "MSI" cycle ?	A MSI cycle is a time period after which the controller waked up from sleep mode and executes measurements from its local sensors. Only if preconfigured threshold got violated the ZBS device will send a message with the fresh sensor data. Otherwise it will go to sleep again. Saves current consumption.
What is a "TXT" cycle ?	A TXT cycle is a time period after which the controller is forced to execute measurements and transmit the fresh data.
What is a "quiescence time" ?	The ZBS-121 can be configured with a quiescence time. After having detected a motion, it will transmit this event and will stay quiete till this period is over. Saves current consumption.
I do not get motion detection from the ZBS-121 !	Set MOVE to !=0 and configure MSENS to >=6. Have a look at the command set.
Where do I find DIA drivers ?	On all product website under the headline "Drivers".
How can I use these DIA drivers ?	
How can I use DIA drivers and iDIGI ?	http://www.idigi.com/
	http://forums.digi.com/support/forum/index
	http://www.digi.com/wiki/developer/index.php/IDigi_Dia_
How are the data retrieved via the DIA driver ?	Configure the attribute txt_time in the yml-file correctly.
How commands can be sent to the ZBS devices via the DIA driver ?	Via the send_command channel
How can I access ZBS devices through RCI (on the CPx)	Via the DIA driver or limited access only to xbee modules. http://ftp1.digi.com/support/documentation/90000569_F.pdf http://www.digi.com/wiki/developer/index.php/Simple_RCI_by_HTTP
How can I access the terminal of the ZBG-100 through the mini usb port	Not possible, the internal serial ports is connected to the ZigBee RF module. Please use SSH.