

ETRXn Firmware Revision History

In order to find out the revision of your module's firmware use the "ATI<cr>" command.

If you are an existing customer and want to update your firmware please contact zigbeesupport@telegesis.com

R208 21-November-2006

Changes

- Moved to EmberZNet2.5.1
- Fixed RSSI reading for AT+REMSN when bit 6 of the local node's S06 is set.
- ETRX2: Fixed AT+REMSN
- ETRX2: Fixed end device crashing during remote A/D read
- ETRX1: Fixed bit 8 of S06 showing the status of the brownout fuse
- A/D readings are now displayed in mV (hexadecimal)
- Removed Factory Default values for S2B, S2C and S04
- Improved channel operation and added end to end handshaking
- Disabled halting the module's operation while serial output buffers are full
- Functionality 0015 and 0016 now use latest encryption key when executing
- In S08 a character timeout of 1 second for xCASTB data and limited channels can be enabled
- ETRX2: Re-Introduced Cloning and added recovery bootloading
- ETRX2: Updated range of S02 in accordance with the Znet2.5 hardware abstraction layer
- Added bitwise writing of remote registers to ATSALL
- ETRX2: Improved hardware flow control
- Tidied up the list of error codes
- Increased maximum payload of BCASTs, UCASTs and SCASTs from 51 bytes to 65 bytes
- Improved efficiency of binding handling for unicasts
- Modified action 300x to flush the command buffer
- ETRX2: Set PWM defaults in S2F and S31 to an audible tone (800Hz)
- Improved PWM handling
- ETRX2: Improved handling of external interrupts and debouncing and decreased debouncing time to 100ms
- Changed default of S1B from F0 to F4
- Added optional error prompts for serial RX errors
- Improved broadcast buffering for end devices
- Added AT+RDATAB command to send raw data
- If S03 is all 0s (default) a random encryption key is generated when establishing a network (AT+EN)
- ETRX2: Fixed ATSALL
- Improved functionality for bit E of S08

<p>Registers and Commands affected</p> <ul style="list-style-type: none"> - AT+REMSN - S08 - S06 - S12, S13 - S02 - ATSALL - AT+CLONE - AT+RECOVER - Action 300x 	<p>Indirectly affected</p> <ul style="list-style-type: none"> - S2B, S2C, S04 - AT+BCAST, AT+BCASTB - AT+UCAST, AT+UCASTB - AT+SCAST, AT+SCASTB - S1B
<p>Upgrade information available</p> <p>Note: After upgrading to R208 the unit will perform a factory reset on the ETRX2.</p> <p>Note: When sending messages to devices running R207 the payload must not exceed the former limitation of 51 bytes.</p>	<p>Upgrade Note Details</p> <p>We recommend that all nodes in a network are upgraded to R208. Do not use mixed R207 and R208 networks</p>

R209 16-January-2007

<p>Changes</p> <ul style="list-style-type: none"> - ETRX1: Moved to EmberZNet2.5.2 - ETRX2: Moved to EmberZnet2.5.3 - ETRX2: Fixed PWM not initialising after reset and power up - ETRX2: When setting bit 6 of S2E the internal reference (1.2V) of the A/D is presented at I/O0 during a measurement (about 16ms prior to measurement for settling until right after the measurement). During the remaining time I/O0 is unused. - ETRX2: When setting bit 7 of S2E I/O8 turns into A/D3, which can be read from S14 - ETRX1: Fixed external interrupt latencies - Improved channel stability with SED and MED. - When issuing AT+SINK? And no sink is known the local unit will also search for a sink after displaying "+SINK:None" - ETRX1: If bit E of S2E is set the A/D readings in S12 and S13 represent the 10 bit readings of the A/D registers against the internal 2.56V reference instead of the reading in mV. - ETRX2: Added pull-up enable register at S0C - Added Parents EUI to S2D - Improved Hardware flow control 	
<p>Registers and Commands affected</p> <ul style="list-style-type: none"> - S2E - AT+SINK? - S2D - S0C - S14 	<p>Indirectly affected</p>
<p>Upgrade information available</p> <p>Notes: When reading S0A from an ETRX1 with firmware <R207 the reading will be incorrect.</p>	<p>Upgrade Note Details</p>

R210 – 19-April-2007

Changes

- ETRX1: Moved to EmberZNet2.5.3
- Reduced amount of Broadcasts buffered for end devices to just a single one in order to save stack buffers
- Improved functionality 0014. Routers now check if they are orphaned by looking at neighbour table exchanges -> no additional traffic required
- Increased the size of the routing table for improved messaging capabilities in bigger networks
- Improved syntax checking for AT+UCAST and AT+SCAST commands
- Fixed SCASTB transmitting 1 additional character
- Improved AT+SN for bigger networks
- Added bit 5 of S06 to add V_{CC} reading in millivolts to transmissions for functionalities 0100-0103, 0110-0113 and 2000
- Improved new parent finding functionality for MEDs
- MEDs only leave network via functionality 0014 and not any more in case they don't find a new parent instantly. They will try to find a new parent instead of polling and also when executing functionality 0014.
- When setting bit 7 of S06 changes to S03 will take effect immediately. The unit will perform a "quiet" leave and will re-init with the new encryption key.
- Corrected functionality 2000 taking its time to be triggered by an IRQ
- All statements now consistently begin with <CR><LF>
- Fixed potential problem of channel transmitting '+' or '++'
- ETRX2: Added Compatibility for the PA version of the module

Registers and Commands affected

- AT+SCASTB
- S06
- Functionality 2000

Indirectly affected

- AT+UCAST, AT+UCASTB
- AT+SCAST, AT+SCASTB
- AT+SN
- Functionalities 0100-0103, 0110-0113 and 2000
- Channel operation

Upgrade information available

Notes: When using functionality 0014 on a node running R209 and this node is surrounded by R210 nodes only, it will leave the network. It is recommended to upgrade the entire network to R210.

Upgrade Note Details

R211 – 27-June-2007

Changes

- Moved both Platforms to EmberZNet2.5.4 (fixes EUI64 corruption on the ETRX1)
- Improved IRQ handling and debouncing on the ETRX2
- ETRX2: Added bit 8 of S2E to enable boost mode regardless of setting in S02
- ETRX1: Fixed AT+RDATAB command
- Added functionalities 0018 to 001B for I/O mapping between devices
- Added the AT+NTABLE command to show local Neighbour Table
- Improved support for the ETRX2-PA

Registers and Commands affected

- S2E
- AT+RDATAB
- Functionalities 0018 – 001B
- AT+NTABLE

Indirectly affected

- S02

Upgrade information available

Notes: When using functionality 0014 on a node running R209 and this node is surrounded by >R210 nodes only, it will leave the network. It is recommended to upgrade the entire network to R211.

Upgrade Note Details

R212 - 14-August-2007

Changes

- Fixed problem with debouncing when in sleep modes 2 and 3 (ETRX2)
- Fixed Problem with MED not changing between two separate PANs using functionality 0014/0016
- Fixed Potential Problem when using re-starting actions driven by IRQs
- ETRX2: MEDs don't re-join every 60 seconds in sleep mode 3 when polling using external interrupts

Registers and Commands affected

none

Indirectly affected

n/a

Upgrade information available

Note: When upgrading from versions prior to R208 please upgrade to R211 first and then upgrade to R212.

Upgrade Note Details