738Zplus Wireless Z-Wave Module

General operation

The 738Zplus module enables a DMP control panel to communicate with devices on a Z-Wave network. A 738Zplus enabled system consists of: a DMP control panel (e.g. XT50), a 738Zplus module, and one or more Z-Wave enabled devices (e.g. switches, thermostats, locks).

The 738Zplus includes a ZM5202 integrated Z-Wave RF Module [1] which operates at 908.42 / 908.40 MHz, with -22.0dBm to -2.0dBm output power. It complies with FCC CFR47 Part 15. The ZM5202 is loaded with a serial API based static controller without repeater, FLiRS and manual routing, provided by Sigma Designs. Refer to [1] section 1.2 for functional block diagram of ZM5202 Z-Wave module.

The 738Zplus includes an MSP430F541. The MSP430F541 communicates with the DMP control panel via serial UART connected to the control panel 4-wire keypad bus. The 738Zplus receives power via the +12V line. The MSP430F541 interprets the commands from the control panel, and sends equivalent commands to the ZM5202 via serial UART. The MSP430F541 also receives messages from the ZM5202 via serial UART and stores them for later retrieval by the control panel. The MSP430541 is configured to use its internal DCO clock.



Figure – 738Zplus block diagram

References

[1] OM-0148 ZM5202 Datasheet.pdf