

# **Functional Description**

The Veta™ Smart Case is a Bluetooth® Smart peripheral based on the Nordic Semiconductor nRF51822 SoC chipset. It transmits and receives at 1Mbps with 4dBm of transmit power, using GFSK modulation across all 40 channels between 2.402GHz and 2.480GHz.

The product is a portable device, carried by a user who has severe allergies and is required to have an epinephrine auto-injector nearby at all times in case of a severe reaction known as anaphylaxis. The product accommodates a single epinephrine auto-injector (not included), augmenting it with electronics and intelligent sensors.

In normal operation, the Bluetooth transceiver is always enabled, and the product is either advertising its presence on one of three advertising channels, or it is connected to another device (typically a smartphone or a tablet). Whether connected or not, the microprocessor periodically measures temperature, and knows when the auto-injector has been removed from the case. When connected, it is able to communicate this information to a support network (using the smartphone or tablet as a gateway to the internet). Should the user misplace the product, if they are close enough to it that it is able to establish a connection to their smartphone or tablet, they can send a signal to the unit to cause it to beep and blink, helping them locate the product, even in a dark room.

The product is dc-powered, using two standard AAA alkaline batteries.