

FS319.5GE Fall Sensor Operational Description

The FS319.5GE Fall Sensor transmitter is a low powered, wireless unit for remote controlling the home security feature. See the function descriptions in attached. A 3VDC battery powers the transmitter. It is designed to operate on a single fixed frequency at 319.5MHz ± 75 kHz. See the attached block diagram and schematic.

When one button triggers the integrated circuit (U3) that produces the digital control signals and U1 will modulate the carrier signal (ASK). There is integrated circuit (U2) sensing the G-force and send the data to the integrated circuit (U3). The carrier signal is generated by Y1 Crystal /amplifier circuit comprised of capacitor (C8, C9, C3, C4) and inductor (L1, L2) and transmitter IC (U1). The modulated output of the RF stage is coupled to the PCB antenna. The Antenna is attached on PCB antenna permanently around 110 mm.

This fall sensor is designed for a user to push the button for help at any time. It can also automatically activate an emergency alarm if it detects a fall in the event that the user is unable to trigger an alarm by pressing the button. This feature is incorporated by the U3 internally.

All tuning and verification are performed by the manufacture and there are user can make no adjustments.