# How It Works

RFID TAG: Up to 2,000 bits stored on a memory chip housed in a key fob, button or integrated circuit card. Garment tags can be etched on a substrate, which is then embedded in a paper or plastic tag.

RFID READER: Housed on a PC card module that contains a transmitter, receiver and digital control module and communicates with a PC through an RS232 interface. The module is connected to an antenna that constantly transmits and, when it senses a card, wakes it up, interrogates it, decodes data and passes it on to a host system over a wired intranet or VSAT system used by retailers.

RFID TAG

Intranet or VSAT

RFID READER
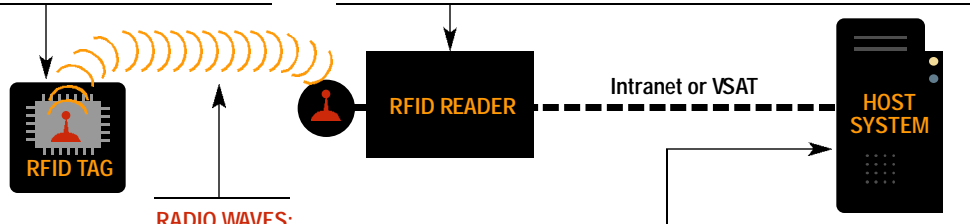
HOST SYSTEM

RADIO WAVES: 125 KHz or 13.56 MHz are the most common RFID frequencies.

HOST SYSTEM: Processes data from a tag passed along by a reader. In case of a payment tag such as ExxonMobil's SpeedPass, it checks the customer's credit and then sends authorization back to the gas station to turn on the pump. In an inventory control or supply chain system, the tag data is used to generate an order for new goods.