

Fare meter Reference Design Using Renesas RL78/G13 (R5F100LEA)



General Description

SM Electronic Technologies developed this reference design using a Renesas microcontroller for a low-cost high-performance ultra-thin meter.

Fare meter Overview

The fare meter layout is compact and thin. The fare meter hardware is a low-cost microcontroller-based system that controls:

- Fourteen displays
- Four push buttons
- Wheel turn indicator
- Programming interface
- UART for debugging.

The fare meter also has a 16-bit expansion port, which can be used in the MCU for customer specific applications. The most common applications are:

SM Electronic Technologies

- Thermo-printer
- GSM/GPRS Interface
- GPS

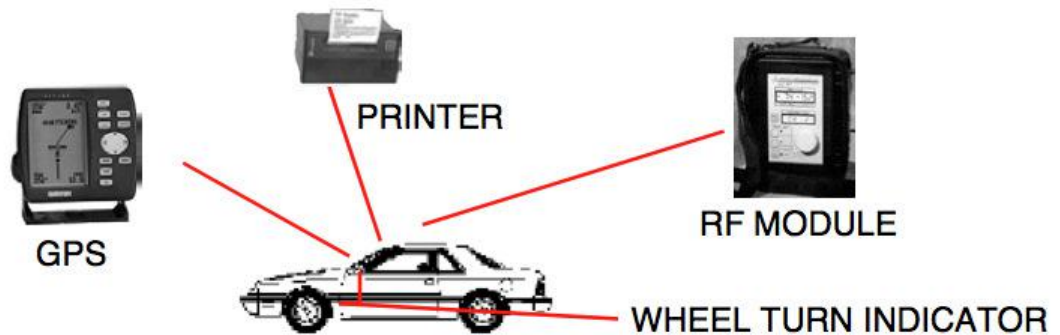


Figure 1-1. Common Taximeter Add-Ons

Main features of fare meter:

- Surface Mount Technology components used.
- Digital display for Fare in Rupees, Distance travelled in kilometer, waiting time in minutes.
- Automatic switch over from running mode to waiting mode.
- Communication Port provided for programming of revised Tariff.
- Tamper proof.
- Uses Auto Rickshaw battery for power supply.
- Easy to Install and handle.
- Push Button to Switch OFF the display to reduce Power Consumption.
- Three Modes of Operation
 1. Vacant
 2. Hired
 3. Freeze