Technical description of CMR119A

Introduction

- CMR119A have Power Consumption by determine of the AC voltage and 3-phase/ single-phase current from the transmitter. The AC current is the data from the sensor unit, the AC voltage (RMS) is set by user, the total power consumption is determine by the equation P=V*(I1+I2+I3) and transmits this information to a Wireless Remote Monitor (CM119A) on frequency of 433MHz.

RF Transmitter and Data Driver

CMR119A, MCU (UPD78F9177) combine data from sensor modules. Transmitter is made of Q4 as a Colpitts Oscillator, where XT1, the 433.92MHz SAW resonator provides the center frequency,C17,C18,C13,C14 perform as the matching network, and R16,R29,R19 perform as the attenuator,C28,C29 for matching 50 ohm antenna.