GrafikT Dimmer Functional Blocks: (Model = GT-RF)

Frequency Table

RF Section
*Carrier Frequency (fc) between 431 and 437 MHz (Transmit)
*Intermediate Frequency (IF) of 203KHz
*LO Frequency equal to fc*IF(Receive)
*3MHz SPI interface (Configuration control from micro controller)
*62.5KHz bi*directional data
Micro*Controller
*26MHz Clock
*13MHz Bus
*3MHz SPI interface (CC1101)
*1 MHz SPI Interface (EEPROM)
*62.5KHz bi*directional data
*1.0 KHz PWM Signal for LED Brightness Control
*120Hz Control Signal for Triac (Dimming) Control
Power Supply
*66 KHz switching signal

Touch Element

LEDs
1.0 kHz PWM

EEPROM

Micro-Controller
STM32L100
(26 MHz OSC,
13 MHz Clock)

Triac
Load-lamp

Data
62.5 kHz

26 MHz   3 MHz SPI

FC = 431,
  to 437 MHz

26 MHz Crystal

CC110L TX/RX RFIC
OSC = 26 MHz,
IF = 203KHz
LO = FC − IF MHz

RF+
Slot Antenna
RF-

Power Supply
(66 kHz Switching Supply)