FBXTLC01: Wireless traffic light controller
Technical specification

- **FBXTLC01A / FBXTLC01B**: (around 100 meters)
  - Usually deployed at pedestrian crossing
  - Vehicle crossing at airports / shopping malls / schools
  - Customized designed and machine trigger in factories
  - Train and truck movement in metallurgical foundries

- **FBXTLC01C / FBXTLC01D**: (around 2-3 Kms)
  - Deployed at ATC tower at airports
  - Sea ports for container movement
  - Customized designs for road junctions

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**FBXTLC01: Wireless traffic light controller**

**Technical specification**

**Model:** FBXTLC01

**Traffic lights:**
Colors: RED, Amber and Green in 1 set

**Controller indicators**
Receiver indicator: RED, AMBER and GREEN
Power supply: GREEN
Sync signal: BLUE

**Enclosure type:**
IP 65 (color black) Polycarbonate (traffic lights)
IP 65 (color grey): for the receiver driver
Controller enclosure metallic (optional)

**Dimensions**
Size: 260 x 260 x 100 mm (without visor)
Size: 260 x 260 x 280 mm (with visor)
Controller size: 250 x 90 x 45 mm
Controller weight: 450 gms
Wire antenna length: 1 meter (2-3Km)

**Customized designs:**
- One remote controlling more than one traffic light simultaneously
- Customized timing of traffic lights
- Traffic light arrangement for parking lots
- Vehicle detection traffic light
- Timing alternation traffic lights

**Features:**
The traffic light controller switches ON/OFF individual lights.

**Ways to operate:**
1) Low range remote controller: 100 meters range
2) Medium range remote: 250 meters range
3) Long range remote: 2-3 Kms range

**Blinking:**
default AMBER blinking

**ON signal => AMBER to GREEN** (from any state)

**OFF signal from transmitter => AMBER to RED** (from any state)

Default signal from transmitter = blinking AMBER

**Technical details:**
Operating voltage of the transmitter: 12VDC
Operating temperature: 25 °C
PA: +10 dbm for 100m remotes / transmitter
PA: +28 dbm for 2-3Km remotes / transmitter
Receiver sensitivity: – 110dbm

Operating frequency: 315-480MHz
CRC on data payload: Enabled
Packet Error Rate: PER (1%)
Redundancy packet feature: Enabled
fOsc = 32MHz
Radio IC used CC1100 (from Texas Instruments) [Sub-GHz frequency]

**Applications**
- Pedestrian road crossing. Security guard can control the traffic light by remote controller to assist pedestrian road crossing (control from around ~100 meters distance)
- Vehicle crossing in shopping malls and residential complexes: Security guard can control the vehicle movement to parking area by switching the light controls (control from around ~250 meters distance)
- Traffic light control at aerodrome from ATC tower to maneuver vehicle and aircraft movement (control from around ~2-3 Km distance)
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- Connection diagram for all 4 receiver models FBXTLC01A/B/C/D is same
- For FBXTLC01C/D models (2-3Kms), make sure to elevate the receiver unit 10-12 feet above the ground (on the pole)
- For all the models the transmitter and receiver should be visible to each other for reliable communication
- The metallic box for the receiver is weather proof and should be kept door closed at all times

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