

DATA SHEET

NanoBrite Control Kit

ARC-NB-CON1

WIFI + R F 2.4 G HZ

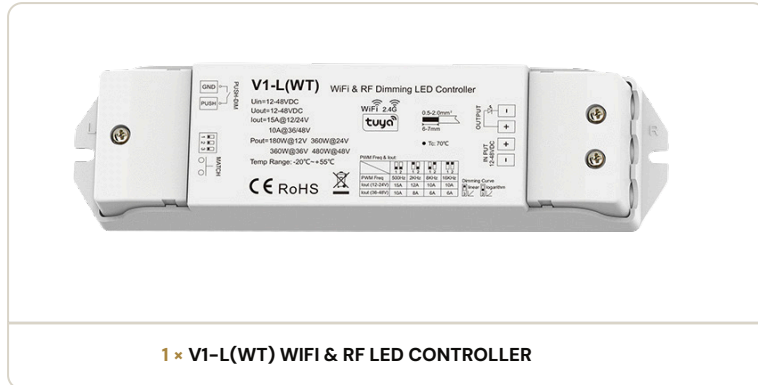
TUYA SMART

4096-LEVEL DIMMING

12-48VDC

CE · ROHS

Kit Contents



| | | | |
|---|--|--|---------------------------------------|
| <p>MAX LOAD</p> <p>480W @48V</p> | <p>DIMMING</p> <p>4096 levels</p> | <p>RF RANGE</p> <p>30m barrier-free</p> | <p>WARRANTY</p> <p>5 years</p> |
|---|--|--|---------------------------------------|

Key Features

- /// Tuya Smart / Smart Life app control — on/off, brightness, timers, delay on/off and up to 4 editable scenes.
- /// Voice control via Amazon Alexa and Google Assistant.
- /// **4096-level (2¹²) dimming** — smooth 0–100% with no visible flicker.
- /// Selectable PWM frequency: 500Hz / 2KHz / 8KHz / 16KHz — 16KHz ideal for camera work.
- /// Linear or logarithmic dimming curve via DIP switch.
- /// RV1 remote pairs with one or more controllers.

- /// Single-zone (default) or 2-zone remote with two savable brightness scenes.
- /// Magnetic remote back — snaps to the wall holder or any metal surface.
- /// Push-dim input for any standard retractive switch.
- /// Works as a WiFi–RF converter for additional RF receivers.
- /// Reverse polarity, short circuit and overheat protection.
- /// Four ways to control: app · voice · remote · push switch.

PWM Frequency vs Output Current

| DIP 1–2 SETTING | 500HZ | 2KHZ | 8KHZ | 16KHZ |
|-----------------|-------|------|------|-------|
| lout (12–24V) | 15A | 12A | 10A | 10A |
| lout (36–48V) | 10A | 8A | 6A | 6A |

Power supply sizing: pair with a 12–48VDC constant voltage driver rated at least **1.2×** the connected LED strip load for guaranteed flicker-free performance.

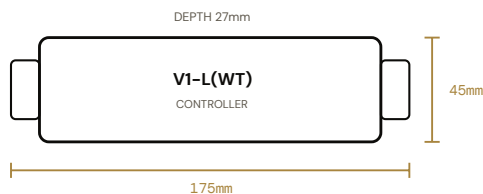
/// Technical Specification

| V1-L(WT) CONTROLLER | |
|-------------------------|--|
| Input / output voltage | 12–48VDC constant voltage |
| Output current | 15A @12/24V · 10A @36/48V |
| Output power | 180W @12V · 360W @24V 360W @36V · 480W @48V |
| Input signal | WiFi + RF 2.4GHz + Push Dim |
| Dimming grey scale | 4096 (2 ¹²) levels · 0–100% |
| PWM frequency | 500Hz / 2KHz / 8KHz / 16KHz |
| Dimming curve | Linear or logarithmic |
| Control distance | 30m (barrier-free space) |
| Operating temperature | Ta: -20°C ~ +55°C |
| Case temperature (max.) | Tc: +70°C |
| IP rating | IP20 — indoor, dry locations |
| Protection | Reverse polarity, short circuit, over heat |
| Dimensions (W×H×D) | 175 × 45 × 27mm |
| Package | L178 × W50 × H38mm · 0.116kg |

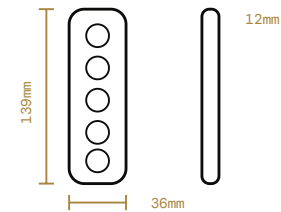
| RV1 REMOTE | |
|-----------------------|--|
| Output signal | RF 2.4GHz |
| Power | 3VDC CR2032 (supplied) |
| Working current | < 5mA · standby < 2µA |
| Standby time | 1 year |
| Range | 30m (barrier-free space) |
| Zones | Single-zone (default) or 2-zone |
| Scenes | 2 savable brightness scenes |
| Mounting | Magnetic back holder — screw, adhesive, or direct to metal |
| Operating temperature | Ta: -30°C ~ +50°C |
| Dimensions (W×H×D) | 139 × 36 × 12mm |
| Package | L156 × W48 × H22mm · 0.077kg |
| Colours | White · Black |

| COMPLIANCE (BOTH UNITS) | |
|-------------------------|--|
| EMC | EN IEC 55015 · EN IEC 61547 · ETSI EN 301 489-1/-3 |
| Safety | EN 61347-1/-2 · EN 62493 |
| Radio | ETSI EN 300 440 |
| Certification | CE · RoHS |
| Warranty | 5 years |

/// Dimensions



V1-L(WT) — 175 × 45 × 27M M



RV1 — 139 × 36 × 12M M

/// Ordering Information

| ORDER CODE | DESCRIPTION | REMOTE COLOUR |
|---------------|---|---------------|
| NB-V1L-KIT-WH | NanoBrite WiFi Dimming Kit — V1-L(WT) + RV1 | ○ White |
| NB-V1L-KIT-BK | NanoBrite WiFi Dimming Kit — V1-L(WT) + RV1 | ● Black |

Compatible 48VDC constant voltage drivers available separately from arc-led.co.uk.