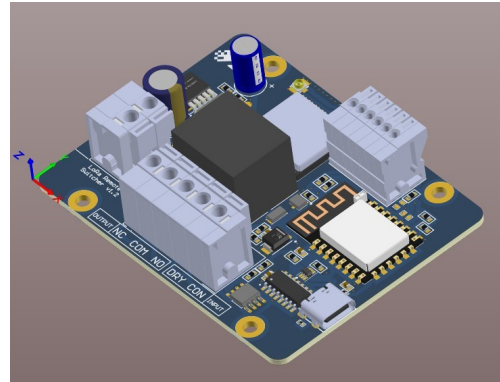


LoRa Relay Switcher

Long-range relay control for generator start/stop, load management and automation systems. Use a dry-contact input or MQTT through a Wi-Fi-connected LRS as a gateway.

- USB-C serial interface and board power
- Six-way sensor terminal block
- Tested 0–5 V and DS18B20 sensor support
- Gateway-to-remote LoRa relay control



MODEL NUMBERS

MODEL	CONFIGURATION
LRS-433xx-CS-t	USB-C; sensor interface; t = mounting holes matching Obo T60 enclosure or 3D-printable DIN mounting bracket
LRS-433xx-MX-d	MicroUSB; no sensor interface; DIN enclosure; recommended power supply: Mean Well HDR-15-12
Nomenclature	xx = no country suffix; C = USB-C; M = MicroUSB; S = sensors; X = no sensors; t = Obo T60 / DIN-bracket mounting holes; d = DIN enclosure

TECHNICAL SPECIFICATIONS

CATEGORY	PARAMETER	SPECIFICATION
Connectivity & wireless	LoRa radio	AI Thinker Ra-02, 433 MHz
—	Wi-Fi / MQTT	Any LRS board can be configured as the Wi-Fi-connected gateway; no special hardware required; external MQTT broker
—	Antenna	u.FL / IPEX; 3 dBi adhesive or 6 dBi coil supplied
Sensors & I/O	Sensor interface	Six-way terminal block
—	Tested sensors	0–5 V analogue including DFRobot KIT0139; DS18B20
—	Relay / input	NO, COM, NC push terminals; 2-terminal dry-contact input
Power & electrical	DC input	5–80 VDC via push terminals
—	USB-C	Serial interface and board power
—	Relay guidance	Use only to switch relay or contactor coils; do not switch real loads directly
Mechanical & environmental	Form factors	DIN or Obo T60 weatherproof junction-box arrangement
—	Accessory	AC power hat for Obo T60: 100–240 VAC, 50–60 Hz input; 12 VDC output label

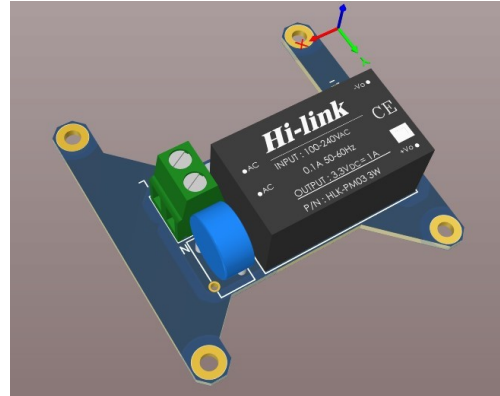
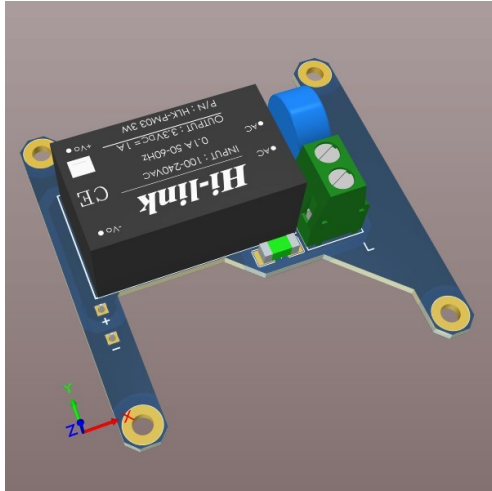
SYSTEM INTEGRATION

Dry contact or MQTT broker	LRS gateway Wi-Fi + LoRa	Long-range LoRa link	Remote LRS local relay action
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Safety warning: do not switch real loads directly with the onboard relay. Use the LRS only to switch the coil of a suitably rated relay or contactor.

AC POWER HAT — OBO T60

Dedicated mains-to-DC accessory for the Obo T60 arrangement. Confirm the production specification before publication or installation.



ACCESSORY SPECIFICATION STATUS

PARAMETER	DETAIL / STATUS
Input	100–240 VAC, 50–60 Hz
Output label	12 VDC
Output current / wattage	Confirm from released power-hat specification
Safety approvals / installation / terminal ratings	Confirm from released power-hat specification

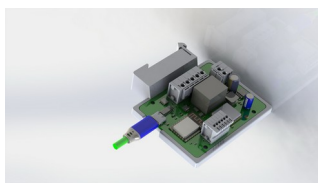
PRODUCT AND REGULATORY NOTES

- This datasheet covers 433 MHz. Use the matching regional version only.
- The separate FCC-approved US 915 MHz version is model LRS-915us-CS-n. Refer to its dedicated datasheet for US deployments.
- Future firmware may support selected 3.3 V I²C devices such as SSD1306; this is not a current compatibility commitment.

SUPPORT

sales@thanda.solar | Document reference: DS-LRS-433-v1.2

3D-PRINTABLE DIN MOUNTING BRACKET



Mounting reference for LRS-433xx-CS-t. The mounting holes match the Obo T60 enclosure or this 3D-printable DIN mounting bracket.

[Open the 3D-printable DIN mounting bracket](#)