

XLRS D2V3

03/Jan/2020

Remote Controller RC

Professional Radio Control System FPV & UAV

New Version 2020

To work from 15-30Km

Range max. 100Km



Radio Control
Data Link
Mavlink Telemetry
AES 128 Encryption

Vehicles

DRONES, UAV, MULTIROTORS, RPAS, VANT, UAV,
AIRCRAFT, HELICOPTERS, UUV, UGV, ROV, USV, ASV,
CARS, BOATS, ROBOTS...

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*Remote controller XPAD2V3
and RXLRS Receiver*

*ISM band 866-950Mhz
or 433Mhz*

*Battery with duration of
approximately 6 hours*

*RC and Data Link data
with AES128 encryption*



Professional system prepared for all types of FPV applications with 500mW RF Power and -110dBm sensitivity to work between 15-30Km (LOS) and with a maximum range of 100km.

NEW

Version 3

*Improve the box structure of XPAD2V3.
Accessary to place a 7" FPV monitor or smart phone.
2 Switches of 3 positions.
Suicase IP67 to transport the entire system.*

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*** FPV monitor isn't included, sold separately.**

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16 Programmable Buttons and Switches

Customize

6 Buttons.

2 MicroJoysticks of 4 positions + Enter.

2 Encoders with push button.

2 news Switches of 3 positions.



You can make various configurations to your liking.

Hot / Fast Buttons & Leds



XPAD2V3 remote controller has configured hot / fast buttons that make it easier and faster to activate or deactivate the most common functions.

Trims, Dual Rate, TX Mode...

Several LED indicators of different colors so that the user can see the status of some functions:
Bluetooth, Radio Control,
Link TX & RX, EXPO, DUAL...



Minimalist Desing

Is different from any standard RC transmitter, the XPAD2V3 has a minimalist design with few buttons but with many functionalities that allows the user to make all types of configurations without using a complex RC transmitter or with many buttons.

With personality, the box has two ergonomic plastic that adapt correctly to the hands and has a 3mm aluminum cover painted with black epoxy this makes the system robust.

Radio Encrypted



The system uses AES 128 encryption, The Radio Control information and the data of the radiomodem (Data Link Transparent) or Mavlink Telemetry are encrypted.

Compatibility with autopilots and route software



The XLRS system is compatible with any autopilot that works with the Mavlink protocol: Pixhawk, Pixhawk Cube, APM, Mini Pix, etc.

Is also with any route software with mavlink protocol: Mission Planner, QGround Control, etc.



XPAD2V3 - Route Software

The XPAD2V3 remote controller can be connected directly to the PC via USB or via Bluetooth, from the bluetooth you can connect to any android device and control the mission from a mobile, tablet...

RXLRS - Autopilot or other devices

The RXLRS receiver connects directly to the autopilot through the MODEM port and can also connect the SPPM (Serial PPM) output to send up to 16 servos to control them from the autopilot.



Protective Transport Suitcase

New suitcase with IP67 certificate, waterproof and strong made of ABS, it offers high resistance and durability against shocks and impacts to transported devices.

Thanks to the adaptable foam of EPP, that is a high resilience material that helps absorb pressure and vibrations, the products is fully protected and motionless.

It has an extendable handle for facilitate transport.



The inside of the suitcase is carefully designed for your XLRS, with foam fillings with which your system will fit perfectly and be protected from impacts.

Its large capacity can store the XPAD2V3 remote controller, RXLRS receiver, FPV 7" monitor, antennas, charger, lanyard and other small components.

New Version 2020

CE 869Mhz

FCC 902Mhz

Custom...



TECHNICAL SPECIFICATIONS XLR5 RADIO

Range of Work: 15-30Km.

Maximum Range: 100Km.

Frequency CE: 869,4-869,65Mhz.
FCC: 902-927,5Mhz.
CUSTOM: 433Mhz, others...

Multi Band XPAD2V3-89: 866, 868, 902, 915, 950Mhz.
XPAD2V3-43: 433Mhz.

Max RF power CE: 500mW (+27dBm).
FCC: 500mW (+27dBm).
CUSTOM: 1W (+30dBm).

Sensitivity max -110dBm @50kb.

Modulation 50 or 100Kb. FHSS. 2-GFSK.

Stability TXCO +-1ppm.

Encryption AES 128 bits.

Connectivity RC, Telemetry, USB, BLUETOOTH, WIFI, RCBUS, SPPM, COM5.

Internal Battery 3.7V, 2400mAh.

Duration 6h.

Battery Charge 1A, USB (Micro-B).

Upgradable and Configurable: DMDStudio Soft.

FEATURES

Nº models: No limits, no memory models needed.
LCD screen easy-to-read, high contrast Blue/White.
Adjustable stick lengths.
Possibility to change mode type (1, 2, 3 or 4).
Button ON and button OFF.
6 Configurable buttons.
3 Encoders with push button.
2 Micro Joysticks for trims and functions.
2 (New) Switches with 3 positions
Alarms, low battery, fail safe, etc.
Ergonomic rubber grips.
Connector antenna: SMA-F.

Dimensions: 268 x 130 x 80mm
Weight: 781g

MAVLINK protocol, compatible with software:
Mission Planner, QGroundcontrol, etc.

It can be used in different RC models:
UAV, DRONES, VANT, RPAS, UUV, UGV, ROV,
MULTIROTORS, CARS, HELICOPTERS, BOATS, etc.

*Some product features
are optional.

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Radio Control & Transparent Data Link Receiver

CE 869Mhz
FCC 902Mhz
Custom...



Radio Control & Telemetry

Powerful and Safe with control

New Concept

Configuration of the mixes, button activation and assignment of encoders are performed in the RX and not in the TX XLRs as is usual in amateur RC systems.

TECHNICAL SPECIFICATIONS

Range of Work	15-30Km
Maximum Range	100Km
Frequency	CE: 869,4-869,65Mhz. FCC: 902-927,5Mhz. CUSTOM: 433Mhz, others...
Multi Band	RXLRs-89-100: 866, 868, 902, 915, 950Mhz. RXLRs-43-100: 433Mhz.
Max RF power	CE: 500mW (+27dBm). FCC 500mW (+27dBm). CUSTOM: 1W (+30dBm).
Sensitivity max	-110dBm @50kb.
Modulation	50 or 100Kb. FHSS. 2-GFSK.
Stability	TXCO +-1ppm.
Encryption	AES 128 bits.
Voltage	5V. Min 4.5V. Max 6Vcc.
Consumption	Standby 70mA. Max. TX(500mW) 540mA@12mS.
Connectivity:	RC, Telemetry, USB, RCBUS, SPPM, COM5, MODEM.
Dimension:	70,78 x 35,75 x 14,78mm.
Weight:	30g (Without ant.) 47g (With ant. 5dBi).

FEATURES

- Control max up to 16 CH RC.** Using the 7CH physical and the autopilot CH through SPPM in CH7.
- 8 Multifunction outputs** for RC servos.
- 1 SPPM / CPPM:** 8-16 (Config.) RC channels in CH7.
- 1 Micro USB:** Update and configuration.
- 1 RCBUS:** Connect XOSD for serial communication.
- 1 MODEM port:** MAVLINK Telemetry and transparent radio modem.
- 1 Red Led:** TX RF or Transmit packets.
- 1 Blue Led:** Link RF or Received packets.
- 1 Connector antenna RC:** SMA-Female.

Compatible with XLRs devices:

TX: BTSD1, XPAD2 V3, XPAD3 V3, GCSD4V2...
OSD: XOSDV2, XOSD3, XOSD3-2G4...

Hardware improvements:

Microcontroller with double memory FLASH, RAM and Eeprom.
Improved PCB, more protection in general.
Improved box, more robust, screws on inserts.
Internal protection against reverse polarity on + 5V servo connectors.
EDS protection and RF Filters in USB.
ESD protection (static) for all pins including servos.
Pins servos protection against short circuits and overloads.

MAVLINK protocol, compatible with autopilots:

APM, Pixhawk, PX4, etc.
No additional radiomodem is required.

Compatible with autopilots with S-BUS?

Yes, depending on the autopilot you can connect directly to CH7 (SPPM) or you can use a PPM to S-BUS converter.

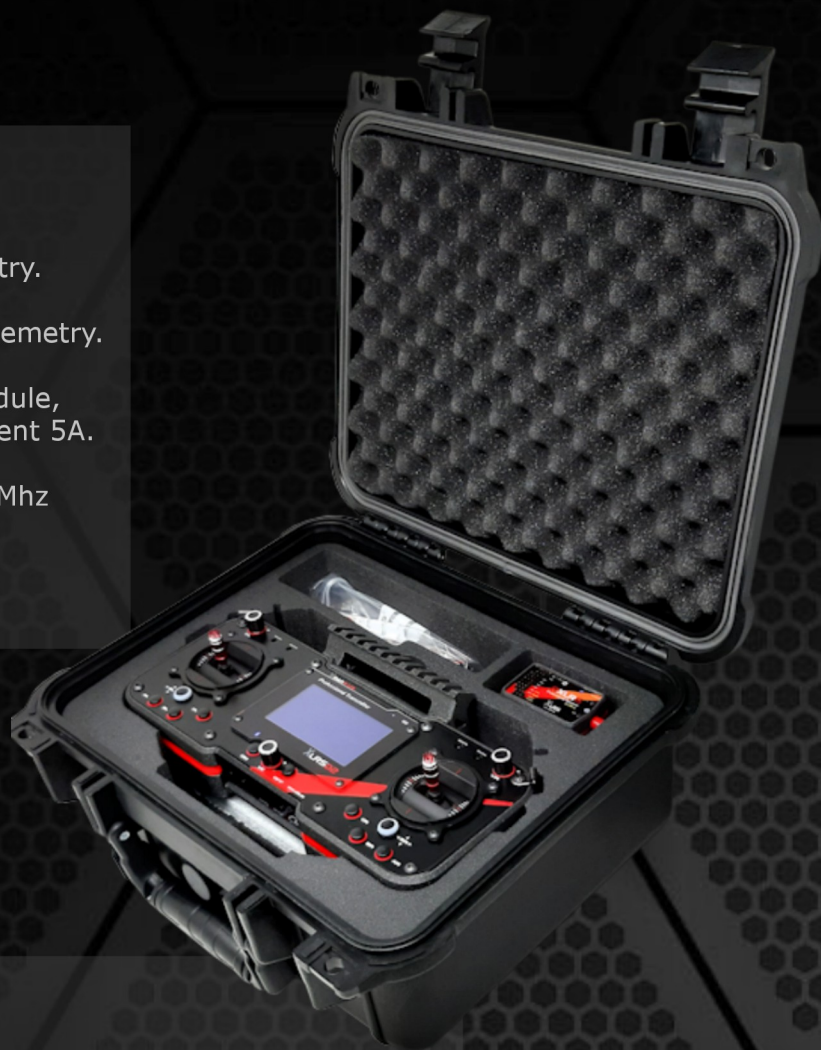
**Some product features are optional.*

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XLRs
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CONTENT

- 1- XPAD2V3-89, Remote Controller RC and Telemetry.
- 1- RXLRS-89-100, Professional receiver RC and Telemetry.
- 1- DCDC38/5VRC. DCDC adjustable step down module, INP 4-38V, OUT 1.25-32V(Adjustable), Out current 5A.
- 2- ANTGSM900, Omnidirectional antenna 868-928Mhz 5dBi.

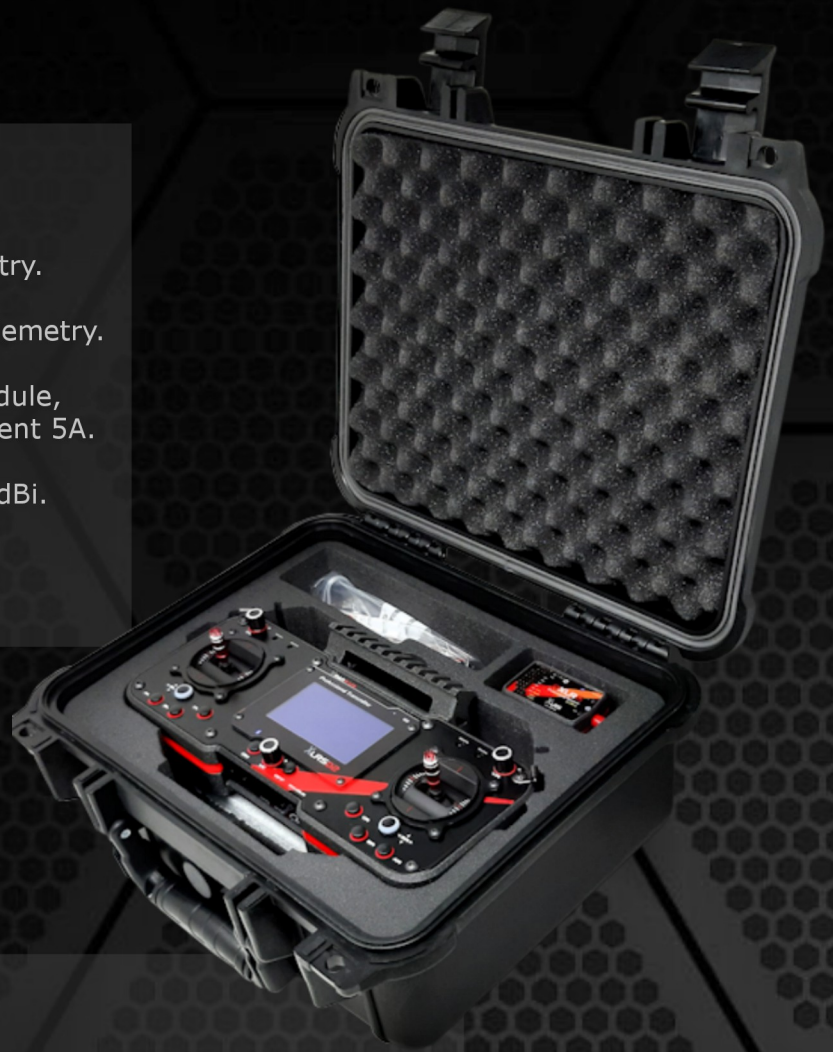


ACCESSORIES

- 1- LAT54_SMAH/SMAM. Cable SMA-Female to SMA-Male, 540mm.
- 1- CABLE_SERVO_HH. Cable Servo RC Female to Female, 200mm.
- 1- CABLE_EXT_SERVO_MH. Extensor Cable Servo RC Male to Female, 300mm.
- 1- CARXP217. Charger for Remote Controller XPAD.
- 1- CABLE_PX4_RX. Adapted Cable for Pixhawk-RX, 300mm.
- 1- CABLE_USB/MICROUSB. Cable USB-A Male to Micro USB-B Male, 2m.
- 1- XLRS Neck Lanyard for remote controller.

CONTENT

- 1- XPAD2V3-43, Remote Controller RC and Telemetry.
- 1- RXLRS-43-100, Professional receiver RC and Telemetry.
- 1- DCDC38/5VRC. DCDC adjustable step down module, INP 4-38V, OUT 1.25-32V(Adjustable), Out current 5A.
- 2- ANTGSM43, Omnidirectional antenna 433Mhz 5dBi.



ACCESSORIES

- 1- LAT54_SMAH/SMAM. Cable SMA-Female to SMA-Male, 540mm.
- 1- CABLE_SERVO_HH. Cable Servo RC Female to Female, 200mm.
- 1- CABLE_EXT_SERVO_MH. Extensor Cable Servo RC Male to Female, 300mm.
- 1- CARXP217. Charger for Remote Controller XPAD.
- 1- CABLE_PX4_RX. Adapted Cable for Pixhawk-RX, 300mm.
- 1- CABLE_USB/MICROUSB. Cable USB-A Male to Micro USB-B Male, 2m.
- 1- XLRS Neck Lanyard for remote controller.

XLRS D2 V3 Manual:

Manual XPAD2V3.

Manual RXLRS.

Default configuration D2 System.

First steps (Quick guide).

XLRS connection diagrams.

DMDStudio Manual:



Learn more about:

Servos XLRS.

XLRS objects.

XLRS Radio Links and Radio Control. Basics notions.

Range, RSSI, Noise in environments UAV – Drones.

Range Test XLRS.

RF Band ISM-ICM.

* The information and images shown in this datasheet, are only referential and may differ from the final product.

* The ranges shown are estimates and in optimal conditions.

**Some product features
are optional.*