#### **OPLINK Mini Air&Ground Telemetry Manual**

Oplink mini Air Dimensions:34mm x19.5mm x10.5mm (included case) Frequency:433mhz Input Voltage: +5v

Oplink mini ground 100mw Standalone Radio Modem 3 IO Ports: Micro-B USB, Mainport & Flexiport Dimensions: 38mm x23mm x10mm (included case) Input Voltage: +5v Frequency:433mhz

## **Connection diagram**



# Binding

## **Coordinator side**

- 1. Connect to the OPLink mini Ground module that you are going to use as Coordinator.
- 2. Go to the OPLink page in the GCS, available on the Configuration tab's left bar. It is only visible if an OPLink or Revolution is connected.
- 3. Set the following recommended settings:
  - 1. "Max Power" **100** (or maximum for your country)
  - 2. "Com Speed" **38400**
  - 3. "Max chan" **250**
  - 4. "Min chan" **0**
  - 5. Tick the **Coordinator** checkbox
  - 6. Click **Save**, wait a few seconds for the telemetry gadget (the meter at the bottom of the GCS) to calm down.
- 4. Write down the Device ID. You are going to use it later.
- 5. Disconnect from the coordinating module.

mote modems				Configuration				
Unbind	0	-12	7dB	PPM Only	One-Way	Max Power	100	Ŧ
Unbind	0	-12	7dB			Com Speed	38400	*
Unbind	0	-12	7dB	Max Chan 250	🗘 (440.000 MI	Hz) Main Port	Disabled	*
Unbind		-12	7dB	Min Chan 0	(430.000 MI)	Hz) Flexi Port	Disabled	*
onbind						VCP Port	Disabled	*
atus				Coordinator				
Firmware Ver.	RELEASE-15.	05.2 201 5-08-1	6 11:2	1 Device ID	32AA9ED0	Link State	Enabled	
Serial Number				Link Quality	128	RSSI	0	
RX Good	64	TX Dropped	0	TX Seq. No.	3951	TX Rate (B/s)	152	
RX Corrected	0	Tx Failure	0	RX Seq. No.	0	RX Rate (B/s)	0	
RX Errors	0			Free Heap	2816	UAVTalk Errors	0	
	0			Timeouts	0	Resets	0	
RX Missed								

The OPLink Save button will display a green "tick" when settings are saved, but it can disappear soon after settings are saved. This is normal behavior.

#### Using custom frequencies

If your country allows only a fraction of the available frequency band to be used, you can adjust the operational OPLink channel range to reflect that. The GCS indicates minimum and maximum used frequency when you change min and max channels. Both OPLinks must have the same min and max channel pair to bind successfully.

### **Slave side**

- 1. Connect to the Oplink Mini Air module that is going to be the connection slave
- On the OPLink page in the GCS, set exactly the same Max
  Power, Com Speed, Max chan and Min chan as you did for the Coordinator. DO NOT tick the "Coordinator" checkbox.
- 3. Enter the Device ID that you wrote down from Coordinator into the **Coordinator ID** text box.
- 4. Click **Save**, wait a few seconds for the telemetry gadget (the meter at the bottom of the GCS) to calm down.
- 5. Disconnect from the slave module. The bind is complete.

mote modems				Configuration			
Bind	0		-127dB	PPM Only	/ 🗌 PPM 🗌 O	ne-Way Max Po	ower 100
Bind	0		-127dB			Com Sp	peed 38400
Bind	0		-127dB	Max Cha	in 250 🌲 (440.	.000 MHz)	
Bind	0		-127dB	LU'S OF S			
		2AA9ED0 Coordinator				.000 MHz)	
Coordinator ID	32AA9ED0	$\supset$	12100	Coordinat	in 0 🤤 (430. tor	.000 MHz)	
Coordinator ID atus	32AA9ED0	$\supset$	12105	Coordinat	in 0 🗘 (430.	.000 MHz)	
Coordinator ID atus Firmware Ver.	32AA9ED0 RELEASE-15.05.	2 2015-08-16 1	11:21	Device ID	in 0 ≑ (430. tor 50018556	.000 MHz) Link State	Enabled
Coordinator ID atus Firmware Ver. Serial Number	32AA9ED0 RELEASE-15.05.	2 2015-08-16 1	11:21	Device ID Link Quality	in 0	.000 MHz) Link State RSSI	Enabled 0
Coordinator ID atus Firmware Ver. Serial Number RX Good	32AA9ED0 RELEASE-15.05.	2 2015-08-16 1 TX Dropped	11:21 0	Device ID Link Quality TX Seq. No.	in 0 ⊕ (430. tor 50018556 128 0	.000 MHz) Link State RSSI TX Rate (B/s)	Enabled 0 0
Coordinator ID atus Firmware Ver. Serial Number RX Good RX Corrected	32AA9ED0 RELEASE-15.05. 64 0	2 2015-08-16 1 TX Dropped Tx Failure	0 0	Device ID Link Quality TX Seq. No. RX Seq. No.	in 0 (≑ (430. tor 50018556 128 0 0	Link State RSSI TX Rate (B/s) RX Rate (B/s)	Enabled 0 0 0
Coordinator ID atus Firmware Ver. Serial Number RX Good RX Corrected RX Errors	32AA9ED0 RELEASE-15.05. 64 0 0	2 2015-08-16 1 TX Dropped Tx Failure	11:21 0 0	Device ID Link Quality TX Seq. No. RX Seq. No. Free Heap	in 0 (\$ (430. tor 50018556 128 0 0 48868	.000 MHz) Link State RSSI TX Rate (B/s) RX Rate (B/s) UAVTalk Errors	Enabled 0 0 0 0 0
Coordinator ID atus Firmware Ver. Serial Number RX Good RX Corrected RX Errors RX Missed	32AA9ED0 RELEASE-15.05. 64 0 0 0	2 2015-08-16 1 TX Dropped Tx Failure	0	Device ID Link Quality TX Seq. No. Free Heap Timeouts	in 0 (\$ (430. tor 50018556 128 0 0 48868 194	.000 MHz) Link State RSSI TX Rate (B/s) RX Rate (B/s) UAVTalk Errors Resets	Enabled 0 0 0 0 0 193

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