

# TECHNICAL DATA SHEET

## BACKPACK KIT

V3.0, 24/11/16

The Organic Response Backpack is a low cost add-on device that plugs into the Controller P2 auxiliary port. The Backpack provides a connection, via an IP Gateway, between the Sensor Node 2.2 and the Organic Response Portal.

The Backpack kit comes complete with an RJ12-RJ12 cable.

Further information detailing the overall feature set enabled by the Backpack can be found in the Portal datasheet or at [organicresponse.com](http://organicresponse.com).



### Kit inclusions

PART NO	DESCRIPTION	QTY
461-10001	Backpack	1
481-33021	Cable	1

**Figure 1: The Organic Response Backpack**

TECHNICAL DATA	KIT PART # : 561-10001
BACKPACK DIMENSIONS	H: 14.83mm x L: 63.97mm x W: 17mm
TOTAL WEIGHT	20g (Backpack=10g, Cable=5g, Bag=5g)
OPERATING FREQUENCY	2.4GHz ISM band
POWER SUPPLY	5VDC (powered from OR Controller)
COMMUNICATION TOPOLOGY	Mesh
RANGE - NODE TO NODE	8m – non LOS (max)
NODES PER GATEWAY	200 (max)
AMBIENT TEMPERATURE (ta)	0°C ... 50°C
COMMUNICATION PROTOCOL	Bluetooth LE
SENSOR NODE 2 COMPATIBILITY	Sensor Node 2.2 version OIC2-9
CONNECTION TO SENSOR NODE	Serial interface, 3.3V 9600 baud
OPERATIONAL PERFORMANCE	Ability to operate in an office environment with performance unaffected by surrounding structures, walls, ceilings, enclosures and by other RF devices which may be present.
EMC COMPLIANCE	EN 62311:2008 EN 300 328 v1.9.1:2015-02 AS/NZS CISPR 15:2011 EN 55015:2013 + A1:2015 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 61547:2009 + A1:2010 IEC 61000-4-2:2008, IEC 61000-4-3:2010 IEC 61000-4-4:2012, IEC 61000-4-5:2014 IEC 61000-4-6:2013, IEC 61000-4-8:2009 IEC 61000-4-11:2004 EN 301 489-1 V1.9.2:2011-09 EN 301 489-17 V2.2.1:2012-09 EN 55022:2010 + AC:2011, Class B & EN 61000-3-2:2006 + A1:2009 + A2:2009 and EN 61000-3-3:2013 & EN 61000-4-3:2006 + A1:2008 + A2:2010 and EN 61000-4-2:2009

	EN 61000-4-4:2012, EN 61000-4-6:2014, EN 61000-4-11:2004, EN 61000-4-5:2006 FCC Part15B FCC Part15C ANSI C63.10-2013 KDB 558074 D01 DTS Meas Guidance v03r05
FCC ID	2AJPE-461-100001
COMPLIES WITH EC DIRECTIVES	EMC Directive 2014/30/EU RoHS2 Directive 2011/65/EU R&TTE Directive 1999/5/EC
PACKAGING	Type: Antistatic bag Dimension: 100mm x 150mm Weight: 17g Quantity: 1pc

## **FCC Part 15 statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## **FCC Part 15B statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **MPE or SAR statement**

### **Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

## Installation Examples



**Figure 2: Backpack mounted direct to OR Controller P2**



**Figure 3: Backpack mounted to OR Controller P2 via luminaire panel mounted auxiliary port**

*Note: When installing the Backpack, clearance must be maintained between the frame or any metal piece in the luminaire and the Backpack PCBA*

*Subject to change without notice. Please visit [organicresponse.com](http://organicresponse.com) for more information.*