



Shipping Label - User's Guide



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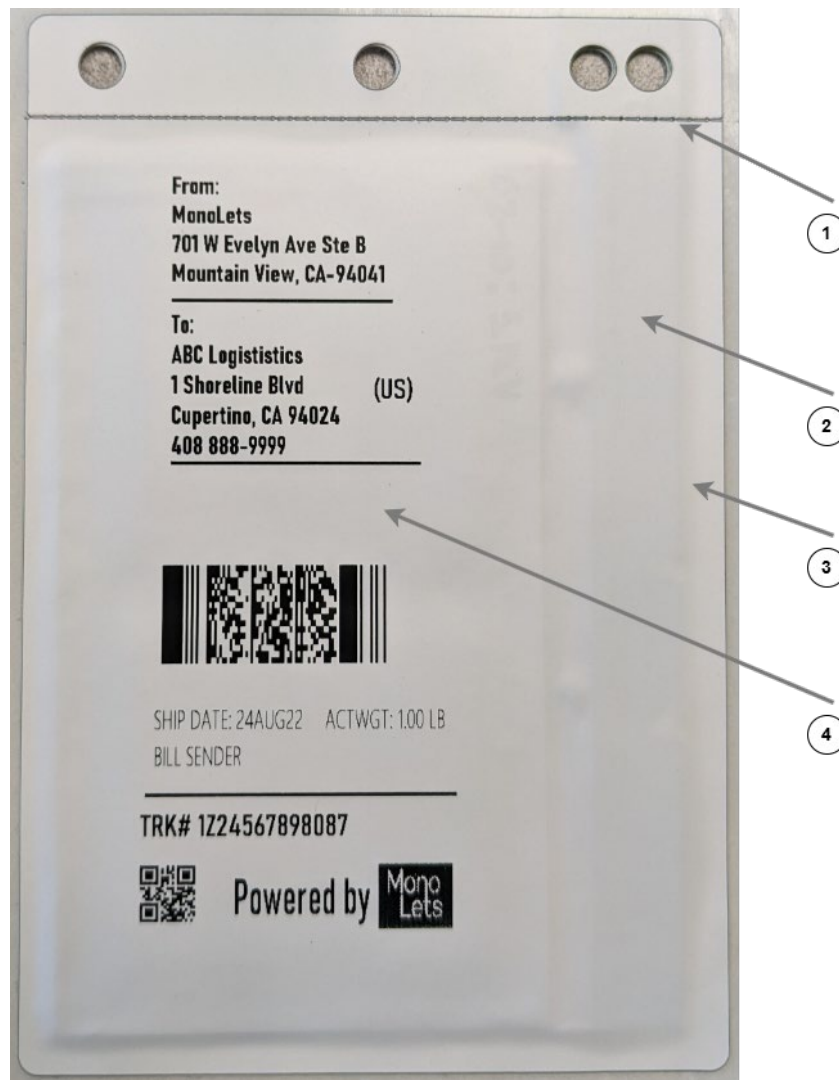
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Revision History

Date	Revision Notes	Version
04/03/25	Original text	v1.00

MonoLets Shipping Label

The Shipping Label is an all-purpose battery powered Bluetooth device that can be attached to or co-located with valuable items while stored, staged or during transport and shipping. The device includes Bluetooth components that are used to connect to a MonoLets Mesh network. While connected to the Mesh network, the device will regularly provide real-time high-resolution temperature and battery information through the Mesh network to the Cloud, and information suitable for estimating the label location.



1. Tear-off section - when torn off Activates the label
2. Green LED - visible through the label from the back
3. Antenna side of the label
4. Printable area

Device Operation

The MonoLets Shipping Label is designed to operate with minimal user interaction. The Label is intended to operate within a MonoLets Mesh Network. When activated, the label will transmit beacons to broadcast its presence. If a suitable Mesh Network device responds, the Label will initiate a connection to the Mesh Network. Once a connection is established, the Label will regularly transmit its sensor and related information through the network to the Cloud.

DEACTIVATED STATE

The device is shipped powered up but in a deactivated state. The deactivated state is indicated by the Green LED blinking once every 10-secs. While the device is deactivated, it consumes very little power - a brand-new battery can be expected to last more than two years. Tearing off the top section of the label activates the device, which is indicated by the Green LED blinking rapidly for a few seconds.

Recommended activation method: first fold the label along the dotted perforation one way, then fold the other way. Tear off and remove the top part of the label along the perforation line.

ACTIVATED STATE - SEARCHING FOR MESH NETWORK

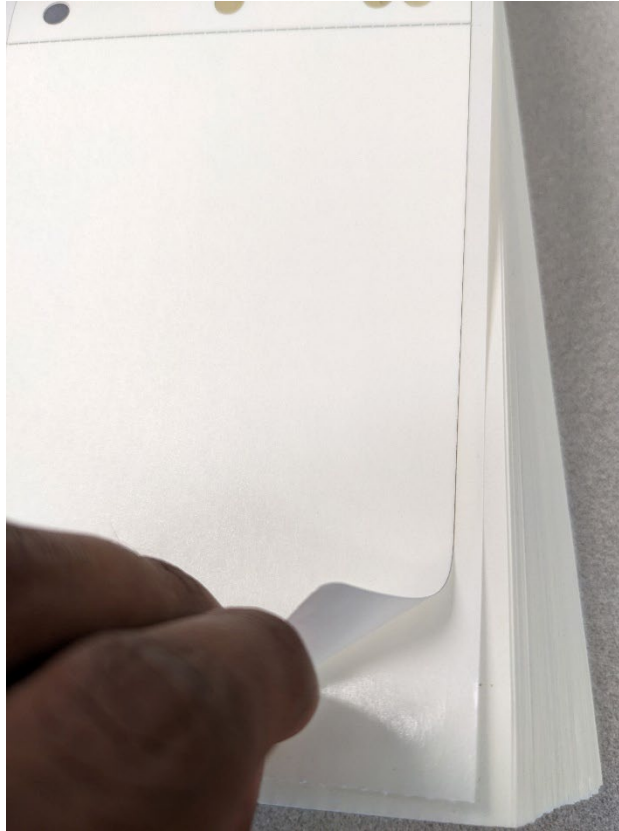
When activated, the device will attempt to connect to a co-located MonoLets Mesh network. While attempting to connect to the mesh network, the Green LED will flash once every 1.5 seconds indicating it is searching for the network. When the Shipping Label has acquired a mesh network connection the Green LED will flash often with short intermittent flashes.

ACTIVATED - CONNECTED TO A MESH NETWORK

Once a Mesh Network connection is established, the Label will regularly transmit its sensor and related information through the network to the Cloud.

Battery

The Shipping Label has a built-in flat 3V Alkaline battery. The battery cannot be replaced. Once the battery is depleted the device will cease operating.

**Attaching the Label**

The back of the label has a peel-off as shown. When the peel-off is removed, the label can be placed and stuck on a flat surface of a crate, box, pallet or similar item. The recommended and best orientation is in the vertical direction, ensuring the antenna side of the label is near or close to the open side or edge of the attached item.

Suggestions for best RF performance:

1. Place the label vertically
2. Place with the antenna side toward an open edge of the attached item
3. Place near the top of the attached item
4. Avoid placing on or near metal

Product Specifications

Bluetooth Connectivity	Bluetooth Low Energy (BLE) v5.1 2.4 GHz ISM, Tx Power: +2.0dBm
Networking Topology	Proprietary BLE wireless Mesh
Power Source	3.0V Alkaline Flat Battery, 120mAH (built-in)
Sensors	Temperature, Battery voltage
Internal Temperature Sensor Range & Accuracy	-10 °C to +65 °C ±0.2 °C -40 °C to +85 °C ±0.3 °C
Operating Temperature range	-20 °C to +60 °C (limited by Alkaline battery)
Certifications	➤ FCC ID: 2BLATMLSHPLBL052503 ➤ IC: 33091-SL052503 ➤ DO-160G ➤ CE
Dimensions (L x W x H)	153 x 95 x 16.5mm 6.0" x 3.75" x 0.64"
Weight with batteries	100 grams, 4 oz
Activation	Always Powered, Tear-off to Activate
LED Indicator	Green: indicates activation state and activity

Certification Declarations

FEDERAL COMMUNICATIONS COMMISSION (FCC)

INTERFERENCE 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:

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

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.

RF Exposure Warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This product may not be collocated or operated in conjunction with any other antenna or transmitter.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operated in conjunction with any other antenna or transmitter.

INDUSTRY CANADA (IC)

CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada's license-exempt RSSs. 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.

Cet appareil est conforme à la norme RSS d'Industrie Canada. Son fonctionnement est sujet aux deux conditions suivantes:

1. le dispositif ne doit pas produire de brouillage préjudiciable, et
2. ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

IMPORTANT NOTE:

Radiation Exposure Statement:

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

Déclaration D'exposition aux Radiations:

Cet Équipement Est Conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet Équipement Doit Être Installée Utilisé avec un minimum de 20cm de distance entre la source de rayonnement et votre corps.

CE STATEMENT

1. Device may operate without restriction in these countries:

	AT	BE	BG	CH	CY	CZ	DE	DK
	EE	EL	ES	FI	FR	HR	HU	IE
	IS	IT	LI	LT	LU	LV	MT	NL
	NO	PL	PT	RO	SE	SI	SK	

2. Cellular Frequency and Power declarations:

Band	Power Class	Tx Freq Range	Rx Frequency Range	Max Tx Power
1	3	1920 - 1980 MHz	2110 - 2170 MHz	23 dBm $\pm$ 2 dB
3	3	1710 - 1785 MHz	1805 - 1880 MHz	23 dBm $\pm$ 2 dB
8	3	880 - 915 MHz	925 - 960 MHz	23 dBm $\pm$ 2 dB
20	3	832 - 862 MHz	791 - 821 MHz	23 dBm $\pm$ 2 dB
28	3	703 - 748 MHz	758 - 803 MHz	23 dBm $\pm$ 2 dB

3. This device meets the EU requirements on the limitation of exposure of the general public to electromagnetic fields by way of health protection. The device complies with RF specifications when the device is used at 20 cm from your body.

FCC Caution.

a、 § 15.19 Labeling requirements.

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.

b、 § 15.21 Changes or modification warning.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

c、 § 15.105 Information to the user.

Note: 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 or more 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.

IC Caution.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause interference, and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

***RF warning for Mobile device:**

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.

