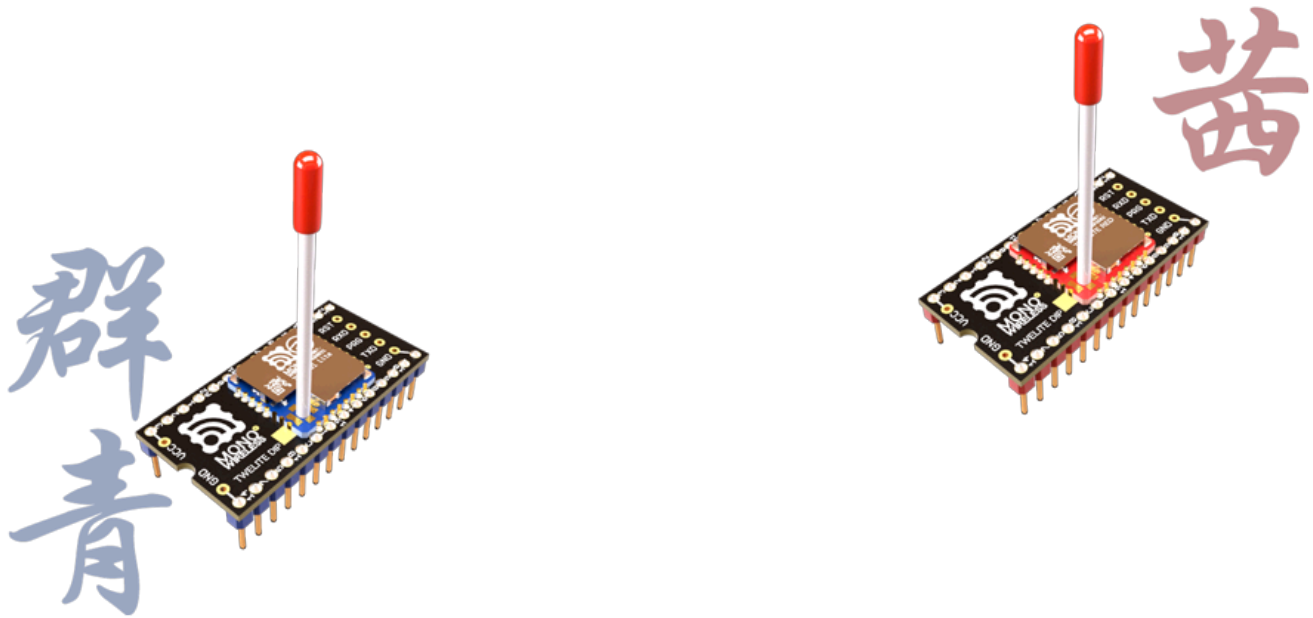




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## TWELITE DIP Variations

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### Selectable output type and antenna type

TWELITE DIP has two output types.



RED offers higher output and improved reception than BLUE, allowing for longer transmission distances. Even over short distances, more stable communication can be expected.



With the release of the high-output RED model, the name of the previous TWELITE model has been changed to BLUE for the standard output model.



The high-output type RED and the standard-output type BLUE can be mixed together.



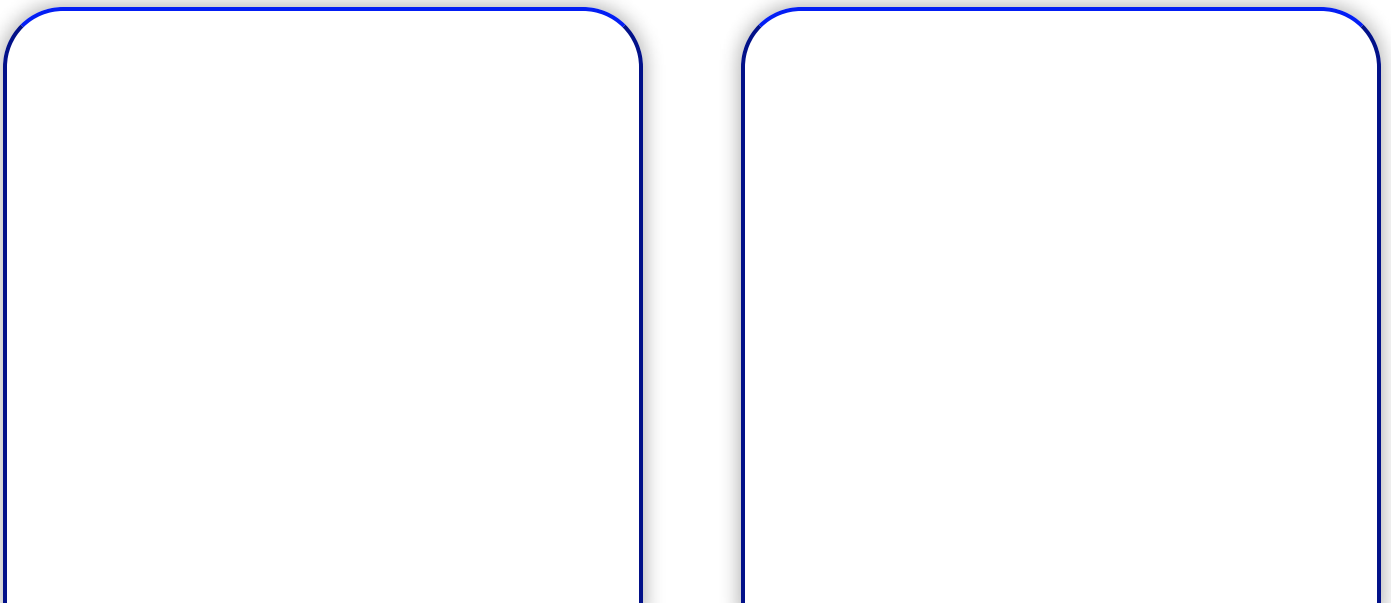
When rewriting the application, please select the appropriate file for the standard output type (BLUE) and the high output type (RED). The binaries are not interchangeable. The TWELITE programmer , a programming tool , supports RED from version 0.3.5.2 onwards.

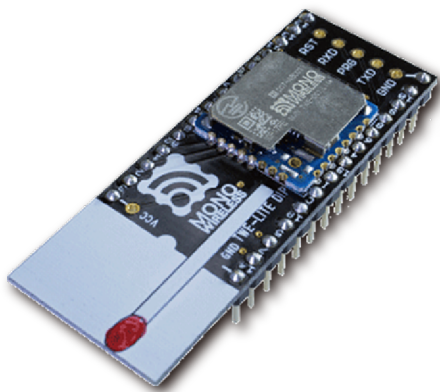
You can choose the antenna type. The features of each type are explained below.

## 2D matchstick antenna type

This product was discontinued on September 30, 2019, and sales will end once store stock runs out.

This product is only available in standard output BLUE; high output RED is not available.





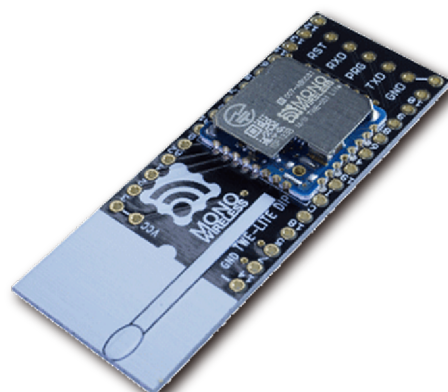
Pin headers already installed

Model number: TWE-L-DI-P

Previous model number: TWE-001L-DIC-PCB

JAN: 4589512170204

Remarks: Pin header pre-installed



Pin header not implemented

Model number: TWE-L-DP-P

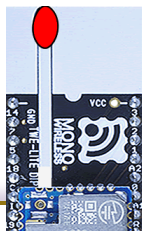
Previous model number: TWE-001L-DPC-PCB

JAN: 4589512170211

Remarks: Pin header not installed

Direction of radio waves

1





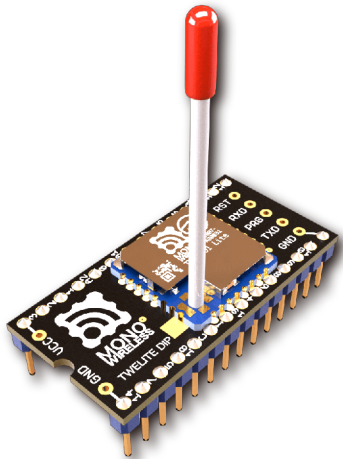
The antenna performs best when it is positioned vertically, similar to a matchstick antenna. The antenna shape printed on the circuit board indicates the correct antenna direction. Performance will decrease if the antenna is not oriented correctly. To extend the communication range, please adjust the antenna direction.

Ensure good communication >

### Matchstick antenna type

If you're unsure, go with this! The classic matchstick antenna.

Antenna and pin header already installed.

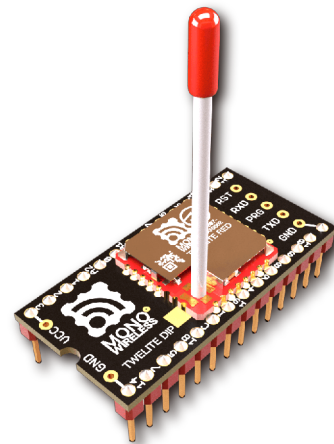


Standard Output BLUE - Blue

Model number: TWE-L-DI-W

Previous model number: TWE-001L-DIC-WA

JAN: 4589512170181



High-power RED - Red

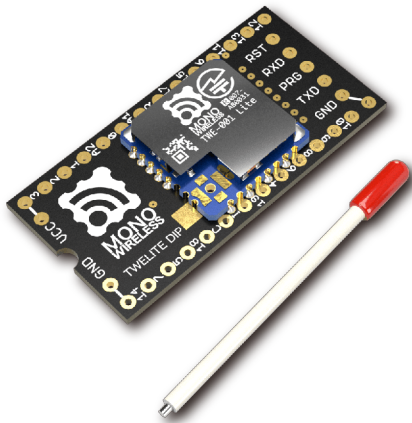
Model number: MW-R-DI-W

JAN: 4589512170433

Remarks: Antenna and pin header already installed



Antenna and pin header not installed.



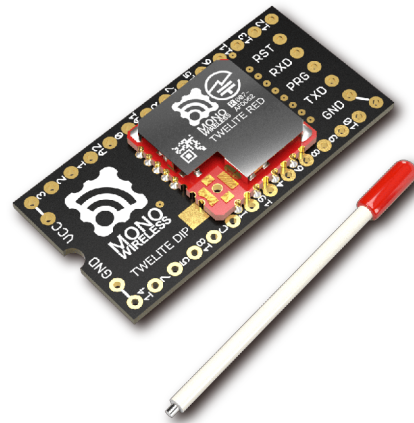
Standard Output BLUE - Blue

Model number: TWE-L-DP-W

Previous model number: TWE-001L-DPC-WA

JAN: 4589512170198

Remarks: Pin header not installed,  
antenna included (soldering required)



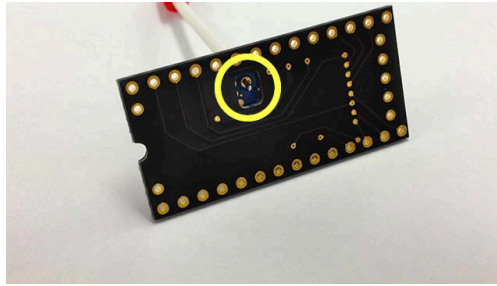
High-power RED - Red

Model number: MW-R-DP-W

JAN: 4589512170440

Remarks: Pin header not installed,  
antenna included (soldering required)

The MW-R-DP-W does not have the antenna (MW-A-W0) soldered on. Soldering should be done through the opening on the back.



When soldering pin headers to terminals, please exercise extreme caution, as poor contact or bridging can prevent proper operation.



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モノワイヤレス株式会社



Watch on

Soldering procedure instruction video (playback time: 3 minutes 29 seconds)



Do not change the length of the matchstick antenna. It will degrade its performance.

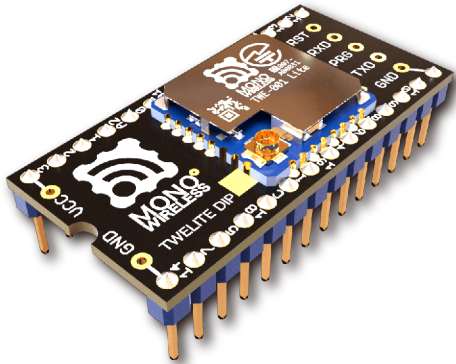
Bending a matchstick antenna at the base will reduce its performance.

Repeatedly bending and straightening the base of a matchstick antenna can cause it to break.

[Learn how to install it >](#)

Coaxial connector type

Want to be particular about your antenna? Choose from a variety of antennas.



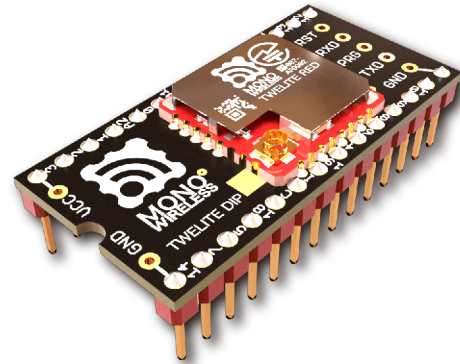
Standard Output BLUE - Blue

Model number: TWE-L-DI-U

Previous model number: TWE-001L-DIC-UFL

JAN: 4589512170228

Remarks: Pin header pre-installed,  
antenna sold separately



High-power RED - Red

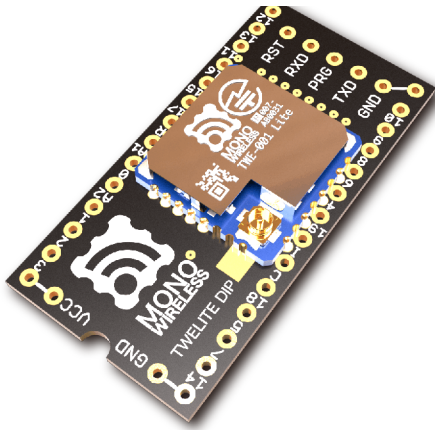
Model number: MW-R-DI-U

JAN: 4589512170457

Remarks: Pin header pre-installed,  
antenna sold separately

---

Pin header not implemented



### Standard Output BLUE - Blue

Model number: TWE-L-DP-U

Previous model number: TWE-001L-DPC-UFL

JAN: 4589512170235

Remarks: Pin header not installed,  
antenna sold separately



### High-power RED - Red

Model number: MW-R-DP-U

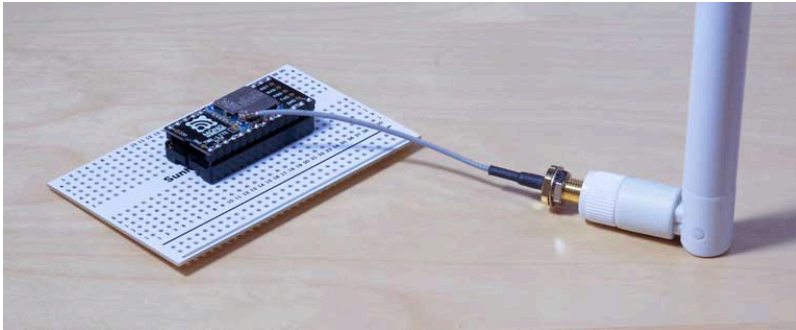
JAN: 4589512170464

Remarks: Pin header not installed,  
antenna sold separately

Please use this product with a separately sold external antenna. It cannot be used without an antenna connected.

You can choose from a variety of technically certified, connectable antennas, including pole-type, flat-panel, waterproof, and compact types, to suit your application. High-gain directional antennas can be used to restrict the direction of radio wave radiation or for long-distance communication.

If your antenna connector is an SMA type, please use an SMA conversion cable. If you need to extend an SMA type cable, please use an extension cable.



Choosing an antenna >



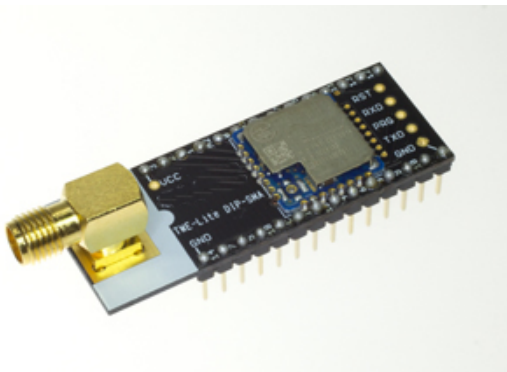
Please be sure to connect the separately sold external antenna before use. It cannot be used without the antenna connected.

Do not apply excessive force when connecting the antenna.

Please ensure the connector is securely connected.

## SMA connector type

This product has been discontinued and will no longer be sold once current store stock runs out. Please consider using the coaxial connector version with an SMA conversion cable as an alternative.



Model number: TWE-L-DI-S

Previous model number: TWE-001L-DIC-SMA

Remarks: Pin header pre-installed, antenna sold separately



Remarks: Pin header not installed, antenna sold separately

An external antenna is connected using an SMA type connector. It can be directly connected to an antenna with an SMA connector.

specification

|                          | BLUE                                                                                                                                                         | RED                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Transmission<br>output   | +2.50dBm                                                                                                                                                     | +9.14dBm                                                   |
| Reception<br>sensitivity | -95dBm                                                                                                                                                       | -96dBm                                                     |
| Transmitting<br>current  | 15.3mA (at +2.50dBm output)                                                                                                                                  | 23.3mA (at +9.14dBm output)<br>14.0mA (at +3.00dBm output) |
| Received current         | 17.0mA                                                                                                                                                       | 14.7mA                                                     |
| External<br>dimensions   | 35.7mm x 17.7mm x 3.5mm (matchstick antenna version)<br>35.7mm x 17.7mm x 3.5mm (coaxial connector version)<br>(excluding antenna, connector, and terminals) |                                                            |
|                          | 47.5mm x 17.7mm x 3.5mm (2D matchstick antenna version)                                                                                                      |                                                            |
| weight                   | 3.6g (matchstick antenna version)<br>3.7g (coaxial connector version)<br>(includes antenna, connector, and terminals)                                        |                                                            |
|                          | 3.3g (2D matchstick antenna version)                                                                                                                         |                                                            |
| Operating voltage        | 2.3~3.6V                                                                                                                                                     |                                                            |



|                           |                                               |
|---------------------------|-----------------------------------------------|
| temperature               |                                               |
| Radio wave authentication | ARIB STD-T66 (Technical Standards Compliance) |