PERSISTENT MESHTASTIC DEVICE

NPH-1

The NPH-1 is a persistent Meshtastic node designed, machined and assembled by Delta Plus Proto in Illinois, USA: a RAK4630-based LoRa mesh radio in a CNC-machined aluminum enclosure, with 22 dBm transmit power, dual external antennas (LoRa and Bluetooth LE), waterproof USB-C and a weight of 420 g. It runs Meshtastic, MeshCore or Reticulum firmware.

MADE Designed, machined and assembled in Illinois, USA

OUTPUT	WEIGHT	BATTERY	TYPICAL RUNTIME
22 dBm 158 mW	**420** g 14.8 oz	**5200** mAh	**2–4** weeks

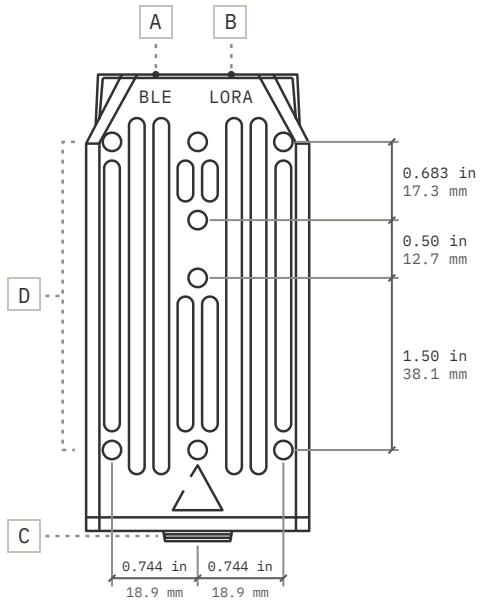
01 / SPECIFICATIONS

OUTPUT	22 dBm (158 mW)
RADIO MODULE	RAK4630 – Semtech SX1262, Nordic nRF52840
MATERIAL	CNC-machined 6061-T6 billet aluminum, made in-house
FINISH	Cerakote ceramic coating, black
INGRESS	Internally tested to IP67
SEALING	Gaskets and O-rings; machined USB-C sealing cap
MOUNTING	Tapped M4 holes on the back; bolt-on belt clip
RUNTIME	2–4 weeks typical
ANTENNAS	Dual external: LoRa and Bluetooth LE
WEIGHT	420 g (14.8 oz)
CHARGING	Waterproof USB-C
FIRMWARE	Meshtastic, MeshCore or Reticulum; pre-configured
DIMENSIONS	2.0" W × 1.65" D × 4.2" H · 51 × 42 × 107 mm
BATTERY	5200 mAh Li-ion, built in (not user-removable)
ADD-ONS	LoRa antenna, Bluetooth antenna, waterproof USB-C cable, Zip Plate

02 / IN THE BOX

- NPH-1 with 5200 mAh Li-ion pack
- Installed machined sealing cap
- Bolt-on belt clip

FIG 01 · REAR FACE — IN (MM)



A BLE antenna port
Install the Bluetooth antenna here

B LORA antenna port
Install the LoRa antenna here

C USB-C sealed cap
Install before field exposure

D Rear clip / mounting side
Keep antennas clear of body and metal

Traced from the NPH-1 dimensioned drawing. Hole spacing between centres; the bolt pattern drawing is on /downloads.

SUPPORT
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MANUAL AND DOWNLOADS
deltaplusproto.com/nph1