K60DN
Gen3 Distribution Node

Quick Start Guide

April 19, 2024

Box contents:

K60DN
(Label stickers on Radio 1 side shown)

Port cover

Passive PoE injector*
(for bench configuration)

DC plug

Screw kit

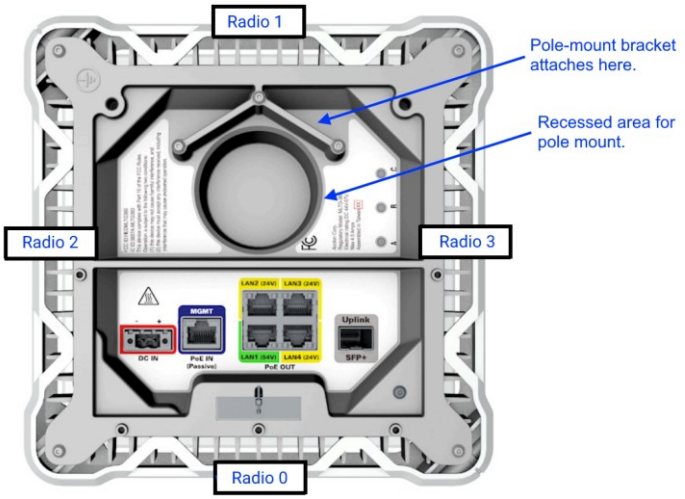
Pole bracket

Stainless steel clamp

***The supplied passive (non-IEEE) PoE injector provides the required 90 W at 56 V and is indoor-rated.

Tool list:

- 1/8” slotted screwdriver for DC plug.
- #2 Phillips head screwdriver for pole-mount bracket and port cover.
- 8mm nut driver for band clamp, or slotted screwdriver.



Installation tips:

- Use a detailed Network diagram, or similar, to provide bench configuration and installation information for the K60DN distribution network.
  - Site location for installation – used for Location/Description info.
  - MAC address for local and remote ends of each K60DN-K60DN link: the radio interface on this K60DN and the K60DN radio interface (DN responder) on the remote end.
  - Planned channel, Golay index and polarity for each radio.
  - Management VLAN ID and PVIDs for this network.
- For straight-line topologies, running through Radio 0 and Radio 1 offers the best performance.
- If the K60DN is repositioned or re-aimed after K60DN-K60DN connections are made, reset the **DN responder** for the link, reboot the K60DN, or power cycle the K60DN to refresh connections. **Note**, after K60CN1 units are connected, resetting the DN responder to refresh connections is less disruptive than rebooting or power cycling the K60DN.

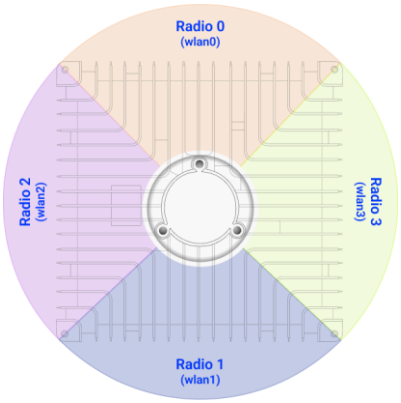
Bench Configuration

Tip: Connecting to a network switch that is DHCP enabled for bench configuration is easier than using a PC which requires static IP addressing.

1. **Connect the K60DN to a switch or PC to configure it via the WebUI:** Connect **Mgmt PoE In** port of the K60DN to the **OUT** port of the passive PoE injector supplied with the K60DN. Connect an Ethernet-enabled switch or PC to the **IN** port of the PoE injector.

2. **Access the WebUI by browsing to the IP address.** K60DNs default to DHCP. Enter the K60DN's address into the browser's address bar, like this: **https://<IP address>** .
   a. At the warning screen click the **Advanced** button and then **Proceed to…**
   b. The WebUI opens at the Status tab. Clicking another tab requires the device's password. Default password: **kwikbit**.
3. Click on the **Admin** tab and set **Location** and **Description**. Verify the firmware version and upgrade, as needed.
4. Click on the **Wireless** tab and set descriptions, channels, Golay index, polarity, DN responders for all radio sectors, according to your network design. CN responders should be added later as K60CN1s are installed, not before.

   Tip: Use Radio descriptions to show where each sector is aimed – useful for install and troubleshooting.



Top view showing sectors

5. Click on the **LAN** tab to verify ports are enabled as needed.
6. Click on the **Network** tab to review and adjust settings for your specific network site.
7. Remove the cable from the **Mgmt PoE In** port. The K60DN is ready for installation.

Installation

1. Attach ground wire to the ground screw. Local codes determine whether grounding is required or optional.
2. Make network connections per network design.

For K60DNs providing fiber access (PoP nodes): Connect to fiber via **Uplink SFP+** port using compatible transceiver modules and optic cable for the site.

For K60DNs that are not PoP nodes: Install cable for any LAN ports to be used per the network design. If there are no LAN connections, go to the next step.

3. **Connect to power**. Connect **PoE1** on the Procet-1N power supply to the **DC In** terminal on the K60DN, using the Custom CAT6 DC terminal plug, wired as shown.

   Verify power is on - LED B on the bottom of the unit is lit.

   For additional K60DN power options, see *Connecting the K60DN to Procet-1N.pdf.*

PINS	T568B Color
Pin 1	white/orange stripe
Pin 2	orange solid
Pin 3	white/green stripe
Pin 4	blue solid
Pin 5	white/blue stripe
Pin 6	green solid
Pin 7	white/brown stripe
Pin 8	brown solid

4. Attach the pole mount bracket and port cover to the bottom of the K60DN.

5. Mount the K60DN on top of a 1.57” – 2” diameter pole at the location planned for it in the network design, using the stainless steel band clamp. Optional J-mount brackets, (Altowav Model: AX-K60DN-JMOUNT) may be used with larger diameter poles or side mounting.

   Line-of-sight (LOS) is required for wireless links. Unobstructed sky view is required for GPS sync.

6. Access the network and verify the K60DN operation before moving to the next K60DN install.

   Note, if the K60DN is repositioned or re-aimed after K60DN-K60DN connections are made, rebeamform the link by resetting the responder for the link, rebooting or power cycling the unit. Resetting the responder is the preferred method when the K60DN has any other wireless links.

   After resetting a link, run traffic through it to verify radio stats and MCS levels per network baseline.

Factory Reset

Use the **Restore Factory Defaults** button in the device’s WebUI to perform factory reset.
If the WebUI is inaccessible due to a lost password or in cases where Network settings are inadvertently set to unworkable values, use a reset plug to reset to factory defaults. To make the reset plug from a short length of Ethernet cable with an RJ45 plug: Short the wires for pins 1 & 2 (the white/orange, orange pair for T568B), leave the other wires open, and break off the clip to make insertion/removal easy.

Warning! Do not insert the reset plug into any passive PoE output ports on the K60DN -- eth2, eth3, eth4.

1) Disconnect power.
2) Insert the reset plug in the **LAN1 (54V)** port (eth1) and reconnect power.
3) Wait for the reset sequence to complete, about 50 seconds, then remove the reset plug.

Note: After the reset, normal operation resumes with factory default settings.

Additional help

Altowav is committed to providing our customers with high quality technical support. Contact us at:

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