

4 x VP470/34 at 90° Mounting instructions



Picture shows four VP470/24 antennas and two two-way power dividers connected for 2x180° coverage.



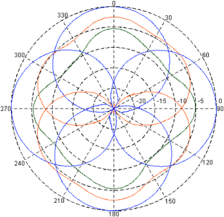
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This mount is intended for mounting four VP470/24 panel antennas at 90° angle to get near omnidirectional coverage. This antenna setup is suitable for access points. The antenna system can be used as 1x360°, 2x180°, 4x90° or 2x90° + 1x180°. It is possible to connect up to four access points to this antenna system. Using eg IEEE802.11b the total effective bandwidth is close to 20 Mbps. We do not recommend the use of tilt mounts in combination with this setup.

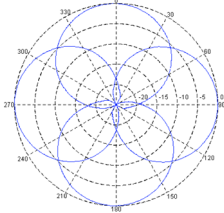
Recommended power dividers for this setup (ordered separately):

- 79950 Power divider two-way, 2.4 GHz
- 79951 Power divider three-way, 2.4 GHz
- 79952 Power divider four-way, 2.4 GHz

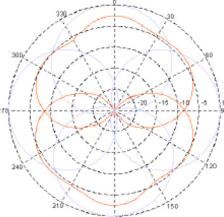
Mounting instruction Dismount the standard mounting bracket from the VP470/24 antennas. Mount one (1) to four (4) VP470/24 antennas on the 4x90° mounting bracket (artnr 79945) using 4 M6x16 bolts supplied with the VP470/24 antenna. On one side, mount a pair of standard mounting brackets incl stainless hose clamps using 4 M6x20 bolts supplied with the 4x90° mounting bracket. Use a spring lock washer on all bolts. The torque shall be 10 Nm. It is not necessary to mount all four VP470/24 antennas. We do not recommend using tilt mounts in combination with this 4x90° mounting bracket since we have not investigated the resulting radiation pattern.



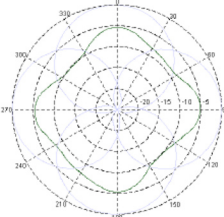
Plot showing three versions of feeding 4 VP470/24 on the mounting frame; blue is four individual antennas (4x90°), red is two pairs (2x180°), green is omnidirectional setup (1x360°).



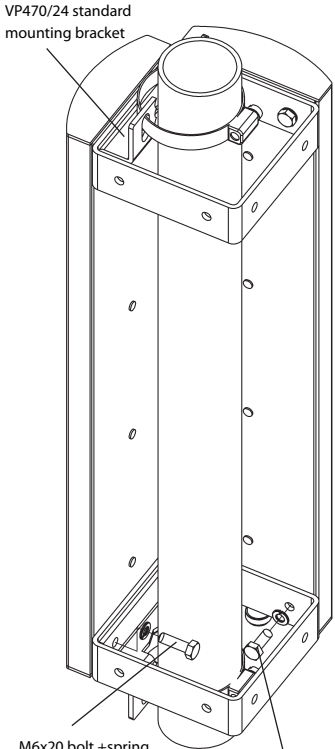
Blue plots shows four VP470/24 mounted on the frame. The antenna patterns overlap at about -5 dB. Gain in the maximum direction is 14 dBi (normalised to 0 dB for comparison).



Red plot shows two pairs of VP470/24 connected as neighbouring pairs for 180° coverage. Gain is 2.5-5 dB less than separate antennas.



Green plot shows four VP470/24 connected for 360° coverage. Gain is 5-10 dB less than separate antennas.



M6x20 bolt +spring lock washer (supplied with 4x90° mount) M6x16 bolt +spring lock washer (supplied with antenna)

