



Brand-Rex technical brief 020

Don't forget the cable.....

Cabling for Wireless Access points, draft standard ISO/IEC 24704

Wireless Access points (APs) need to be incorporated into the structured cabling scheme because the APs need a source of power but more importantly they have to be able to communicate with the rest of the Local Area Network. But whereas most structured cabling is installed at floor level, or desk level, Access Points tend to be up in the ceiling where they will get the best RF coverage.

The Standards are therefore addressing how this cabling can be covered in the standards as the intention is that it is more logical to make this an extension of the ordinary structured cabling installation rather than create bespoke cabling just for this application.

EN 50174 will address this issue in its next edition, but there will actually be a dedicated standard just for this subject before that from the ISO/IEC, known as ISO/IEC 24704 *Information technology - Customer premises cabling for wireless access points*.

The Standard requires that at least 4 balanced pairs capable of meeting class D, E or F channel requirements in accordance with ISO/IEC 11801; or at least two optical fibres within at least one cable, and capable of meeting class OF-300, OF-500 or OF-2000 in accordance with ISO/IEC 11801, are supplied to the AP. Obviously if only the fibre selection is made then other power arrangements would have to be made.

For power provisioning, cabling specified in this draft standard is intended to support connection to wireless access points whose power is supplied by way of the balanced cabling channel as specified in IEEE 802.3af. Other power provisioning applications may also be supported.

The spacing of the cabling grid is driven by the expected range of the wireless technology. The table shows the expected ranges for different WLAN standards and this leads the standard to conclude that a 12 metre grid would be ideal.

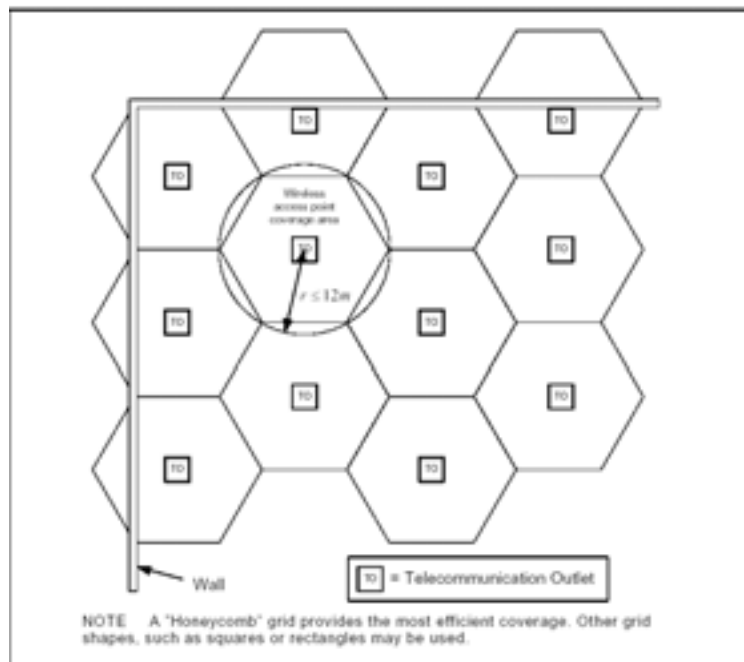


Figure 1 – Grid of telecommunications outlets for wireless coverage areas