

7.7 Suggestions for Suburban

7.7 关于郊区覆盖的建议

Given below are the Statistics for Suburban region for Pilot coverage, which is quite sparse throughout the Suburban, Highway and Village areas. Covered area is quite low, i.e. only 52% area is getting coverage of -110 dBm and 28% has coverage of -100 dBm.

郊区、高速公路和乡村的导频覆盖相当稀疏，下面是郊区导频覆盖的统计数据。覆盖范围通常相当低，例如仅有 52% 的区域覆盖功率为 -110 dBm，28% 的区域覆盖功率为 -100 dBm。

Name Surface (km²) % of Covered Area

Coverage by Transmitter suburban 2,654.60100

Best Signal Level (dBm) ≥ -80 236.288.901

Best Signal Level (dBm) ≥ -90 423.02315.935

Best Signal Level (dBm) ≥ -100 741.42327.93

Best Signal Level (dBm) ≥ -110 1,382.1452.066

Best Signal Level (dBm) ≥ -120 2,654.60100

不同信号强度覆盖的区域面积（平方公里）

发射机覆盖郊区面积 2,654.60100 平方公里

最好信号电平 (dBm) ≥ -80 的覆盖区域为 236.288.901 平方公里

最好信号电平 (dBm) ≥ -90 的覆盖区域为 423.02315.935 平方公里

最好信号电平 (dBm) ≥ -100 的覆盖区域为 741.42327.93 平方公里

最好信号电平 (dBm) ≥ -110 的覆盖区域为 1,382.1452.066 平方公里

最好信号电平 (dBm) ≥ -120 的覆盖区域为 2,654.60100 平方公里

（原文中此处数字小数点疑似有误，按此理解计算与前文覆盖比例吻合）

Moreover, there is large expanse of area, in suburban and highways where there is no coverage. Thus optimizing with the available cells will not show much impact.

此外在郊区和高速公路周围有许多区域没有信号覆盖。因此对现有基站进行优化覆盖效果将不会得到明显改善。

To have an adequate coverage:

为获得满意的覆盖范围：

We need to have seamless coverage on Highways by putting up more sites (may be with 30 deg 21 dBm gain antennae). Mainly for those areas where no-coverage highway stretch is more than 9 km.

For existing highway sites, TMA can be incorporated to boost the coverage by 3-4 km.

Additional sites to be incorporated to enhance coverage upto reasonable levels.

必须在高速公路部署更多站点（可使用 30 度水平波瓣增益为 21 dBm 的天线）以实现无缝覆盖。大部分此类站点都部署在高速公路无信号覆盖范围延伸超过 9 公里的区域。对于已有的高速路站点，使用塔顶放大器(TMA, Tower Mounted Amplifier)技术可以使覆盖范围提升 3 至 4 公里，还可以在此基础上再添加基站以达到令人满意的覆盖效果。

Post adequate coverage / capacity in the area only, nominal plan for Suburban can be fine tuned to desired levels.

只要能提供足够的信号覆盖（系统容量），郊区初步规划就可以进行精细优化以达到满意效果。