Coverage Threshold

Coverage Threshold is the minimum signal strength required at the street level so that after penetration through various environments, there would be enough signal strength at the mobile's antenna.

$$\text{Coverage}_{TH} = RX_m + L_m - G_m + DUP + FM + Other$$

where Other = Any other possible losses , i.e.,
$$Other = Body_L + INcar_L \text{ (or } INbldg_L)$$

G_m is the maximum mobile antenna gain in dBi
L_m is the mobile cable loss in dB
DUP is the mobile duplexer loss in dB
RX_m is the signal level at the mobile receiver in dBm
$Body_L$ is the body loss in dB (portable coverage)
$INcar_L$ is the in cal loss in dB (portable coverage)
$Inbldg_L$ is the in building loss in dB (portable coverage)
FM is the fade margin in dB

It is also expressed as:
$$\text{Coverage}_{TH} = EIRP_{(balanced)} - MAPL$$

where EIRP(balanced) is the base stations effective isotropic
radiated power after balancing the path.
MAPL is the maximum allowable path loss