The equipment was configured as shown in the next figure.

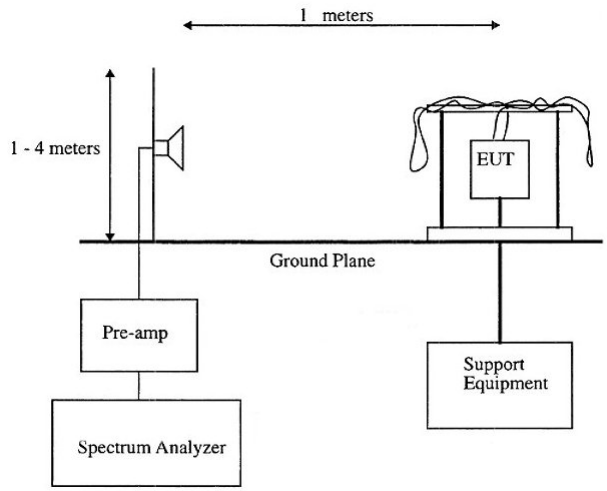

Figure 7 : Test configuration for Radiated Spurious emissions

The BTS was configured to transmit at maximum power (static level 0).
Measurements were made according to the procedures outline in ANSI C63.4
The emissions were investigated up to the tenth harmonic of the fundamental emission (20 GHz).
The measured level of the emissions was recorded and compared to the limit.
The reference level for spurious radiation was taken with reference to an ideal dipole antenna excited by the rated output power according to the following relationship :

$$E(V/m) = \frac{1}{R(m)} * \sqrt{30 * Pt * G}$$

Where,

E = Field Strength in Volts/meter,
R = Measurement distance in meters,
P_t = Transmitter Rated Power in Watts (27 Watts),
G = Gain of ideal Dipole (linear)

Therefore :

$$E(V/m) = \sqrt{30 * 27 * 1.64}$$

E = 36.44 V/m = 151.23 dBµV/m
The spurious emissions must be attenuated by at least 43 + 10*Log(27) = 57.3 dB.
Therefore the field strength limit at 1 meters is :
E = 151.23 dBµV/m – 57.3 dB = 93.9 dBµV/m