

ABSTRACT:

This paper describes the technique of deriving path reduction factor from experimental rain rate and rain attenuation data over seven DIGI MINI-LINKs operating at 15 GHz in Malaysia (Lat.: 1.45° N and Long.: 103.75° E). The relationship between experimental path reduction factors with different link lengths has been studied, using multiple non-linear curve-fitting techniques. Based on these studies, an empirical path reduction factor model has been proposed and compared with the ITU-R model. The test results have shown that the ITU-R prediction model may not be appropriate for predicting rain-induced attenuation for the tropical Malaysian climate.