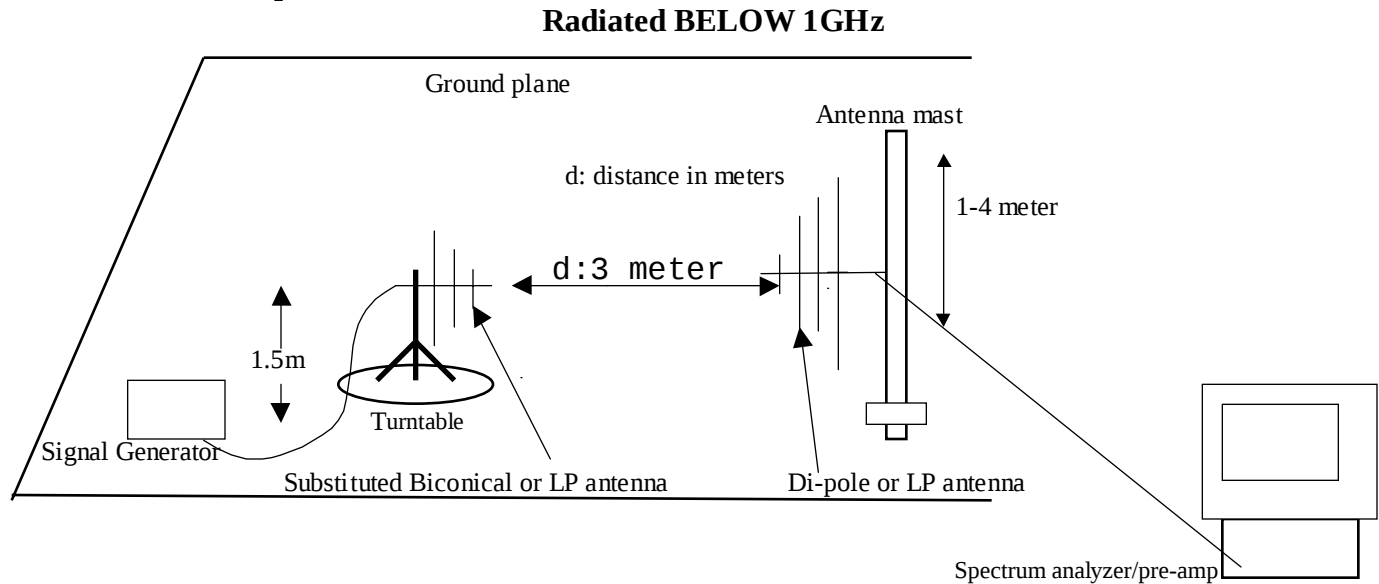


SUBSTITUTION METHOD: (Radiated Emissions)

Test Set-up:



The actual signal generated by the measured equipment may be determined by means of a substitution measurement in which a known signal source replaces the device to be measured.

- A. The substitution antenna will replace the Eut antenna in the same position and in vertical polarization. The frequency of the signal generator shall be set to the frequencies that were measured on the Eut. The test antenna shall be raised and lowered, if necessary, to ensure that the maximum signal is still being received. The signal generator, output level, shall be adjusted until an equal or a known related level to what was measured from the Eut is obtained in the spectrum analyzer.

The radiated power is equal to the power supplied by the signal generator

The formula, to calculate the true reading, is: $\text{True reading} = \text{dBm} + \text{GdBd} - \text{CL}$

dBm = signal generator output level

GdBd = the gain in dBd of the substitution antenna

CL = the cable loss

The calculated True reading is then compared to the limit and should not exceed the limit. This method must be performed for every emission measured from the Eut. This shall also be repeated for horizontal polarization.

Compliance Certification
Services

3/12/01

Standard Telecom

Pete Krebill

{ EUT }		{ }		Substitution Method		{ }			
Frequency	SA reading	Sig Gen	CL	Gain	Gain	ERP	Limit	Margin	
MHz	dBuV	dBm	dB	dBi	dBd	dBm	dBm	dB	
S/N:12500164177									
AMPS:									
824.05	84	21.9	1	6.6	4.4	25.3	38.5	-13.2	
836.49	99.4	21.4	1	6.55	4.35	24.75	38.5	-13.75	
848.97	83.2	21.2	1	6.5	4.3	24.5	38.5	-14	
CDMA:									
824.64	97	19	1	6.6	4.4	22.4	38.5	-16.1	
836.94	96.5	19.8	1	6.55	4.35	23.15	38.5	-15.35	
848.37	96.8	20.2	1	6.5	4.3	23.5	38.5	-15	
S/N:12500164178									
AMPS:									
824.05	83.7	21.7	1	6.6	4.4	25.1	38.5	-13.4	
836.49	100	20.7	1	6.55	4.35	24.05	38.5	-14.45	
848.97	82.3	20.9	1	6.5	4.3	24.2	38.5	-14.3	
CDMA:									
824.64	97	19	1	6.6	4.4	22.4	38.5	-16.1	
836.94	97.7	20.4	1	6.55	4.35	23.75	38.5	-14.75	
848.37	97.1	20.2	1	6.5	4.3	23.5	38.5	-15	