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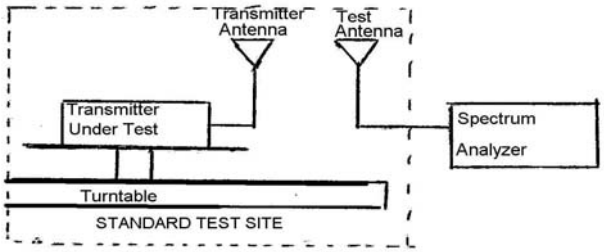
NAME OF TEST: Radiated Power Output (Substitution Method)

Definition: The average radiated power of device is the equivalent power required, when delivered to a substitution antenna, to produce at a distant point the same average received power as produced by the licensed device.

Method of Measurement:
a) Connect the equipment as illustrated. Place the transmitter to be tested on the turntable in the standard test site.



b) Raise and lower the test antenna from 1m to 4m and rotate turntable from 0° to 360°. Record the highest received signal in dB as E_T.

c) Replace the transmitter under test with a substitution antenna. The center of the antenna should be at the same location as the transmitter under test. Connect the antenna to a signal generator with a known output power level using the same modulation as with the transmitter. Raise and lower the test antenna like in step b) and record the highest received signal in dB as E_S.

d) Calculate radiated power as following:
Radiated power = Level + E_T – E_S + $Gain_{Ant}$

E_T Signal level received from transmitter
E_S Signal level received from substitution antenna

	Freq MHz	Level dBm	$Gain_{Ant}$	$E_T - E_S$ dB	Power dBm	Power Watts
AMPS	824.04	3.8	-5.21dBd	23.4	22.0 ERP	0.158 ERP
	836.40	3.8	-5.29dBd	22.9	21.4 ERP	0.138 ERP
	848.97	3.7	-5.35dBd	22.5	20.9 ERP	0.122 ERP
TDMA	824.04	5.4	-5.21dBd	24.2	24.4 ERP	0.275 ERP
	836.40	5.6	-5.29dBd	25.5	25.8 ERP	0.381 ERP
	848.97	5.3	-5.35dBd	23.7	23.7 ERP	0.232 ERP
PCS-TDMA	1850.04	4.0	-3.25dBi	27.2	28.0 EIRP	0.624 EIRP
	1879.98	3.9	-3.31dBi	26.3	26.9 EIRP	0.489 EIRP
	1909.92	3.9	-3.27dBi	27.2	27.8 EIRP	0.607 EIRP
PCS-GSM	1850.20	6.1	-3.25dBi	25.6	28.5 EIRP	0.700 EIRP
	1880.00	6.0	-3.31dBi	25.3	28.0 EIRP	0.630 EIRP
	1909.80	6.1	-3.27dBi	27.0	29.8 EIRP	0.962 EIRP

Description		s/n
TRANSDUCER		
Seibersdorf PBA10200	precision biconical	327/00