

Test Report:	2004-080553-FCC-E
Applicant:	Trapeze Networks
Equipment Under Test: (EUT)	802.11b/g/a Combo Access Point
FCC ID:	QZE100
In Accordance With:	FCC Part 15.401, Subpart E Class II Permissive Change
Tested By:	Nemko San Diego Inc.
Authorized By:	Chip Fleury
Date:	8/25/2004
Total Number of Pages:	15

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EQUIPMENT: QZE100

Section 1. Summary of Test Results

General

All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15, Subpart E. Radiated tests were conducted in accordance with ANSI C63.4-1992. Radiated emissions are made on an open area test site. A description of the test facility is on file with the FCC.

THIS TEST REPORT RELATES ONLY TO THE ITEM(S) TESTED.

THE FOLLOWING DEVIATIONS FROM, ADDITIONS TO, OR EXCLUSIONS FROM THE
TEST SPECIFICATIONS HAVE BEEN MADE.

See " Summary of Test Data".

TESTED BY: Alan Laudani DATE: 8-4-04—9-3-04

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This report applies only to the items tested.

EQUIPMENT: QZE100

Summary Of Test Data

Name Of Test	Para. No.	Result
Powerline Conducted Emissions	15.207(a)	N/A
Emission Bandwidth	15.403(c)	N/A
Peak Conducted Transmit Power	15.407(a)(3)	N/A
Peak Power Spectral Density	15.407(a)(3)	N/A
Peak Excursion Measurement	15.407(a)(6)	N/A
Undesirable Emissions	15.407(b)(3)(5)	Complies

Note:

- (1) This application is for a class II permissive change to this device approved under FCC ID# QZE100.
- (2) The scope of changes are as follows:
 - (a) Addition of an integral Centurion puck 3dBi antenna.
 - (b) Re-layout of the PCB.
- (3) The radio circuitry and RF characteristics are unchanged from the original certification, and as such only the relevant radiated data has been provided.
- (4) The RF exposure requirements comply as per the original certification.

Test Conditions:

Outdoor Temperature: 25°C
 Humidity: 30%

EQUIPMENT: QZE100

Section 2. General Equipment Specification

Manufacturer:	Trapeze Networks
Model No.:	MP-100
Serial No.:	
Date Received In Laboratory:	12 Aug. 2004
Nemko Identification No.:	
Operating Frequency(s):	5180-5240MHz 5260-5320MHz
Rated Power (maximum):	5150-5250MHz = 11dBm 5250-5350MHz = 13.8dBm
Modulation/Access Method:	802.11a, OFDM
Antenna Data:	3dBi Centurion Puck (integral)

EQUIPMENT: QZE100

Section 3. Undesirable Emissions

Para. No.: 15.407(b)(2)

Test Performed By: Glen Westwell	Date of Test: 12 Aug 2004
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Test Results: Complies

Measurement Data: See attached plots and table.

- Emissions were searched for all possible configurations. Worst case data has been presented.
- The DUT was searched from 30MHz to the 10th harmonic. Only those emissions within 20dB of the limit were reported.
- Bandedge emissions were measured at the lowest and highest operating frequencies.
- The power supply source was varied +/-15% to verify worst case emissions.

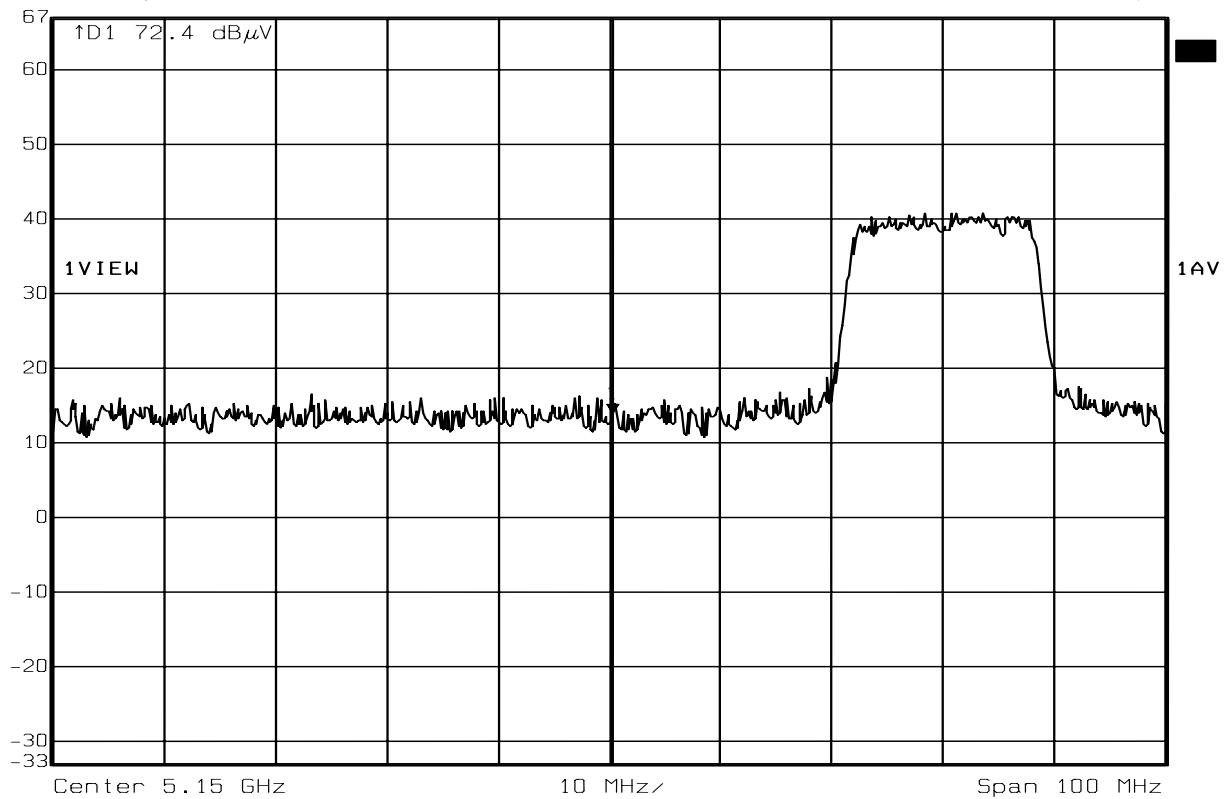
EQUIPMENT: QZE100

5150-5250MHz

Lower Band Edge, 802.11a, Integral 3dBi puck antenna, Ch. 36

Band Edge Level (dBuV)	Signal Substitution Level (dBm)	Antenna Gain (dBi)	Emission Power Level (dBm)	Limit (dBm)
13.9dBuV	-48.0	10.0	-38.0	-27.0

Marker 1 [T1] RBW 1 MHz RF Att 0 dB
Ref Lvl 13.91 dBμV VBW 1 MHz
67 dBμV 5.15038076 GHz SWT 5 ms Unit dBμV



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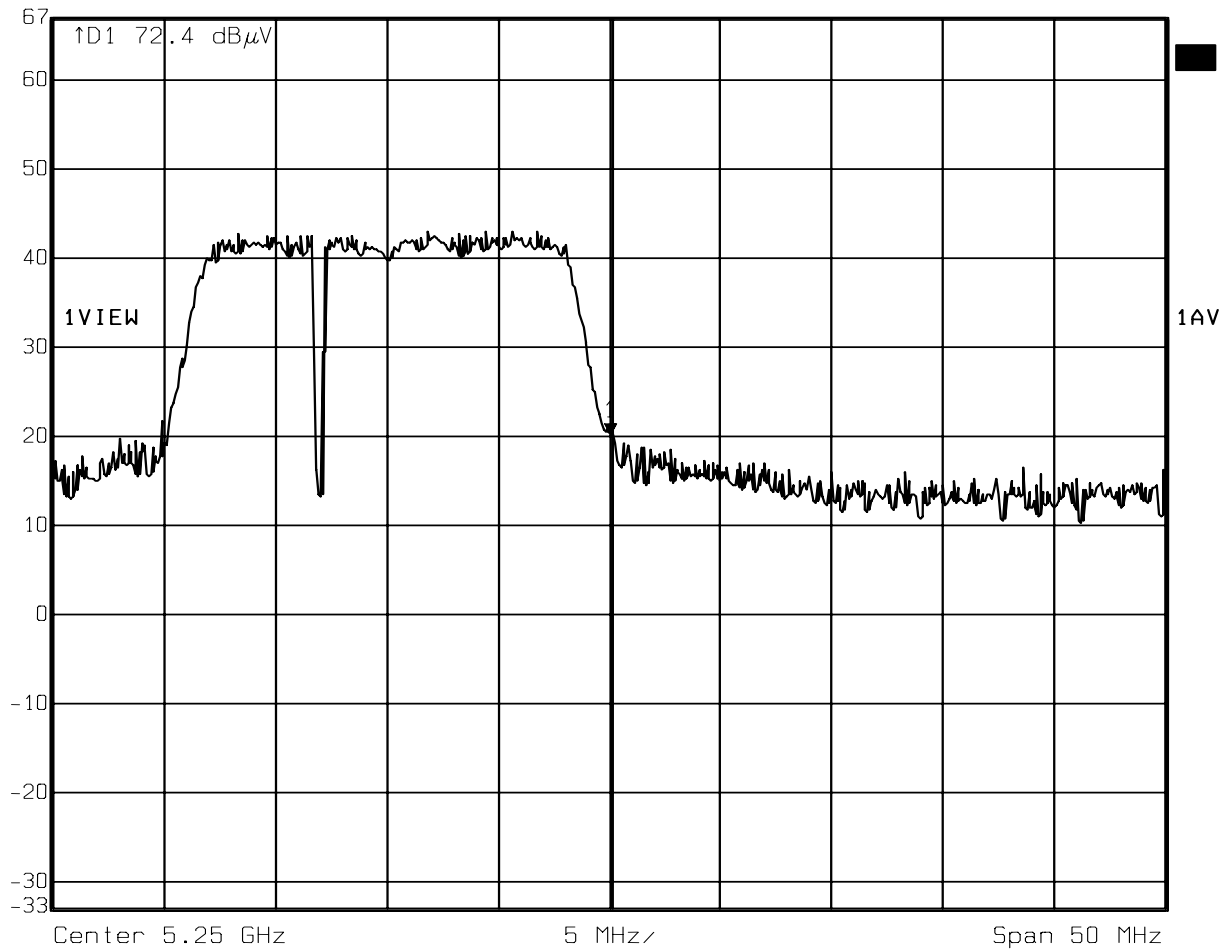
EQUIPMENT: QZE100

5150-5250MHz

Upper Band Edge, 802.11a, Integral 3dBi puck antenna, Ch. 48

Band Edge Level (dBuV)	Signal Substitution Level (dBm)	Antenna Gain (dBi)	Emission Power Level (dBm)	Limit (dBm)
20.2dBuV	-40.9	10.0	-30.9	-27.0

Marker 1 [T1] RBW 1 MHz RF Att 0 dB
Ref Lvl 20.16 dB μ V VBW 1 MHz
67 dB μ V 5.25005010 GHz SWT 5 ms Unit dB μ V



Date: 12.AUG.2004 15:39:57

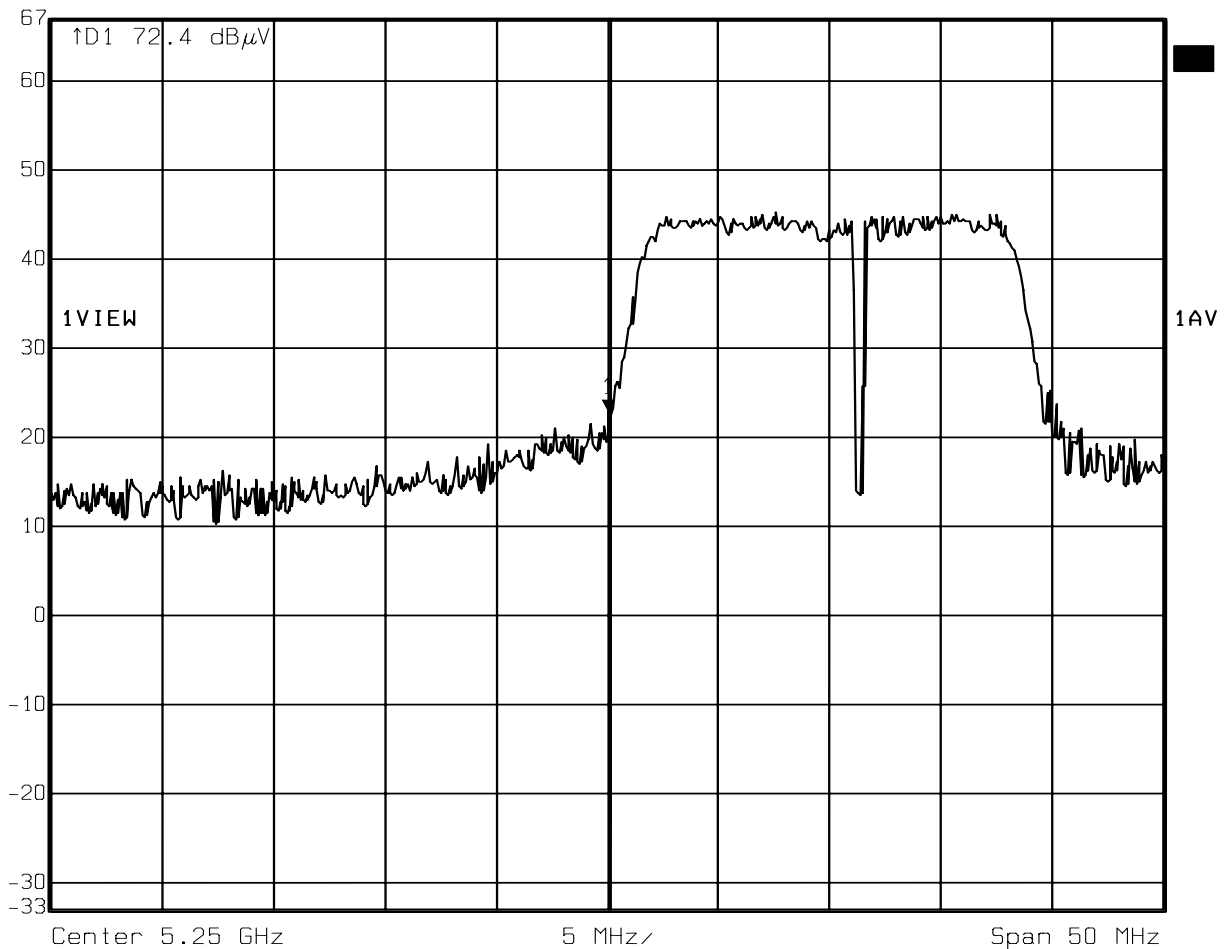
EQUIPMENT: QZE100

5250-5350MHz

Upper Band Edge, 802.11a, Integral 3dBi puck antenna, Ch. 52

Band Edge Level (dBuV)	Signal Substitution Level (dBm)	Antenna Gain (dBi)	Emission Power Level (dBm)	Limit (dBm)
22.8dBuV	-38.2	10.0	-28.2	-27.0

Marker 1 [T1] RBW 1 MHz RF Att 0 dB
Ref Lvl 22.78 dBμV VBW 1 MHz
67 dBμV 5.25005010 GHz SWT 5 ms Unit dBμV



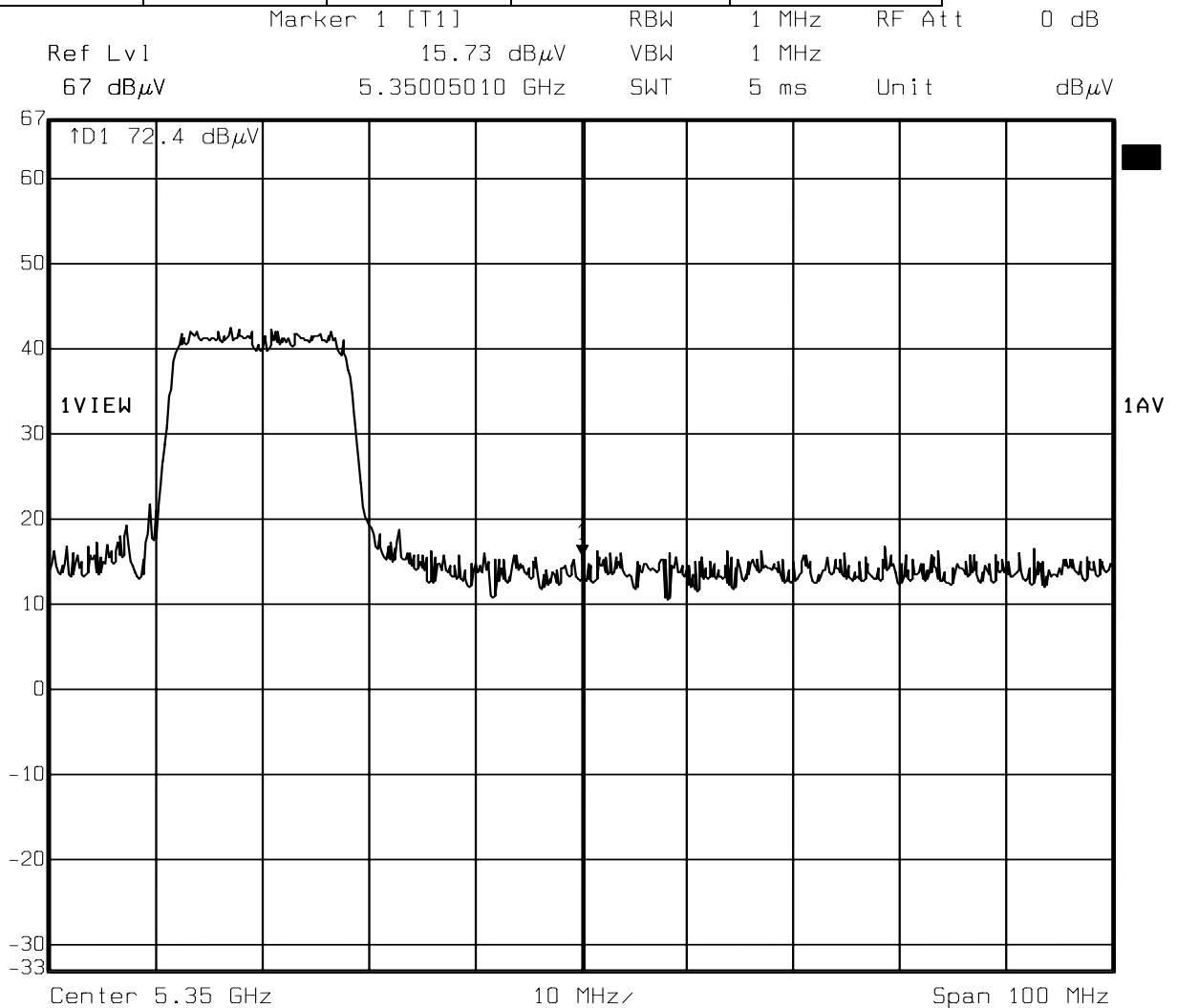
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EQUIPMENT: QZE100

5250-5350MHz

Upper Band Edge, 802.11a, Integral 3dBi puck antenna, Ch. 64

Band Edge Level (dBuV)	Signal Substitution Level (dBm)	Antenna Gain (dBi)	Emission Power Level (dBm)	Limit (dBm)
15.8dBuV	-45.0	10.0	-35.0	-27.0



Date: 12.AUG.2004 15:48:02

1. Radiated Disturbance Test Data:



Radiated Emissions Data

Complete	<u>Yes</u>	Job # :	<u>24-446-TRA</u>	Test # : <u>5</u>
Preliminary	<u> </u>		Page <u>1</u>	of <u>1</u>
Client Name :	<u>Trapeze Networks</u>			
EUT Name :	<u>Mobility Point</u>			
EUT Model # :	<u>100</u>			
EUT Part # :	<u> </u>			
EUT Serial # :	<u> </u>			
EUT Config :	<u>Emissions found from ch. 64, power level 14, channels 36, 48, 64 searched.</u>			
EUT Mode :	<u>Mode A</u>			
Note:	<u>EUT was scanned for emissions from the Fundamental up to the 10th Harmonic.</u>			
Specification :	<u>FCC part 15.209, 15.407</u>			
Rod. Ant. #:	<u>NA</u>	Temp. (deg. C) :	<u>24</u>	Reference :
Bicon Ant.#:	<u>NA</u>	Humidity (%) :	<u>56</u>	Date : <u>8/24/2004</u>
Log Ant.#:	<u>NA</u>	EUT Voltage :	<u>NA</u>	Time : <u> </u>
DRG Ant. #	<u>529</u>	EUT Frequency :	<u>NA</u>	Staff : <u>A. Laudani</u>
Dipole Ant.#:	<u>NA</u>	Phase:	<u>NA</u>	Photo ID: <u> </u>
Cable#:	<u>20ft</u>	Location:	<u>SOATS</u>	Peak Bandwidth: <u>RBW-1MHz VBW-1MHz</u>
Preamp#:	<u>40db</u>	Distance:	<u>3m</u>	AV Bandwidth <u>RBW-1MHz VBW-10Hz</u>
Spec An.#:	<u>NA</u>			
QP #:	<u>NA</u>			
PreSelect#:	<u>NA</u>			

[illegible]

EQUIPMENT: QZE100



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Substitution Method For Radiated Emissions

Complete	<u>Yes</u>	Job # :	<u>24-446-TRA</u>	Test # :	<u>7</u>
Preliminary	<u> </u>		Page <u>1</u>	of	<u>1</u>
Client Name : <u>Trapeze Networks</u>					
EUT Name : <u>Mobility Point</u>					
EUT Model # : <u>100</u>					
EUT Part # : <u> </u>					
EUT Serial # : <u> </u>					
EUT Config. : <u>Centurian internal Antenna -- Power level 15</u>					
<u>Mode A</u>					
Specification :	<u>FCC part 15.209</u>		Reference :		
Rod. Ant. #:	<u>NA</u>	Temp. (deg. C) :	<u>24</u>	Date :	<u>8/24/2004</u>
Bicon Ant. #:	<u>NA</u>	Humidity (%) :	<u>56</u>	Time :	<u> </u>
Log Ant. #:	<u>NA</u>	EUT Voltage :	<u>NA</u>	Staff :	<u>A. Laudani</u>
DRG Ant. #	<u>529</u>	EUT Frequency :	<u>NA</u>	Photo ID:	<u> </u>
Dipole Ant. #:	<u>NA</u>	Phase:	<u>NA</u>	Peak Bandwidth:	<u>RBW-1MHz, VBW-1MHz</u>
Cable#:	<u>20ft</u>	Location:	<u>SOATS</u>	AV Bandwidth	<u>RBW-1MHz, VBW-10Hz</u>
Preamp#:	<u>40db</u>	Distance:	<u>3m</u>		
Spec An. #:	<u>NA</u>				
QP #:	<u>NA</u>				
PreSelect#:	<u>NA</u>				

target Frequency mHz	level dBuV/m	Horn Gain dBi	cable loss dB	Signal Generator dBm	Total (EIRP) dBm	Spec dBm	Margin dBm
10640	66.7	12.1	11.6	-31.2	-30.7	-27.0	-3.7

EQUIPMENT: QZE100

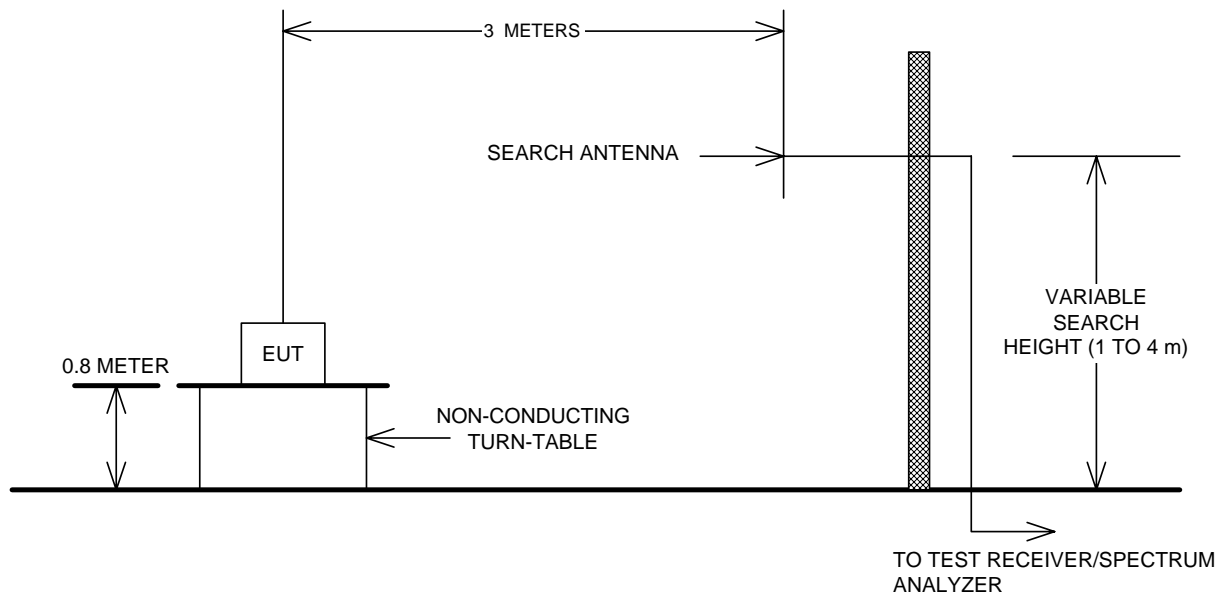
Radiated Emissions

1. Integral 3dBi Puck Antenna

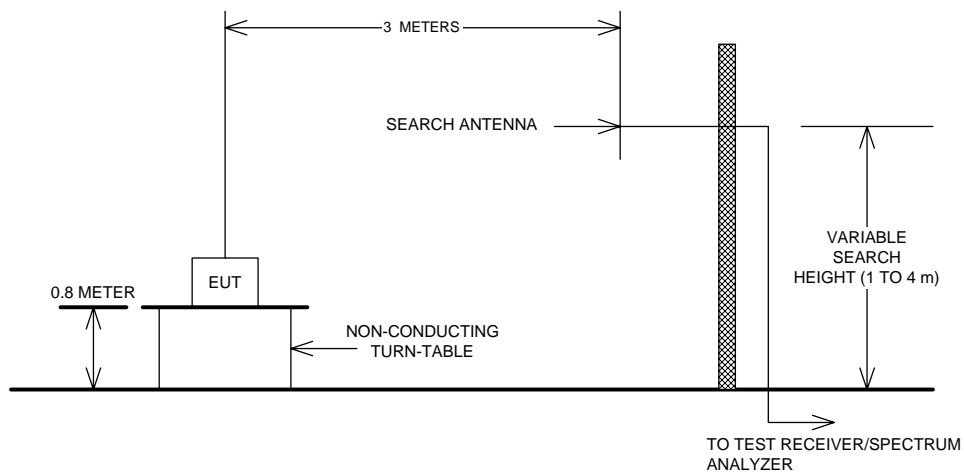


Section 4. Block Diagrams

Test Site For Radiated Emissions



TIA/EIA 603, Signal Substitution Method



*EQUIPMENT: QZE100***Section 5. Test Equipment List**

Radiated Emissions Test Equipment					
Client	Error! Cannot open file.		EUT Name	Error! Cannot open file.	
PAN #	Error! Reference source not found.		EUT Model	Error! Cannot open file.	
<i>Device Type</i>	<i>Model #</i>	<i>MFG</i>	<i>Asset #</i>	<i>SN</i>	<i>Cal Due</i>
OATS #1 (North)					
Spectrum Analyzer	1088.3494.30	R & S	835	830320/002	12/11/04
Antenna, Ridged Guide	3115	EMCO	529	2505	3/30/04
Antenna, Ridged Guide	3116	EMCO	625	9611-2325	1/12/05
Preamplifier	40 dB	Miteq	171	NA	NCR
4 GHz High Pass Filter	9SH10-4000	K&L	NA	55	NCR
Antenna, Ridged Guide	3115	EMCO	752	9609-4943	12/19/04
Signal Generator	E8254A	Agilent	836	US41140229	11/6/04

NA: Not Applicable
NCR: No Cal Required
COU: CAL On Use