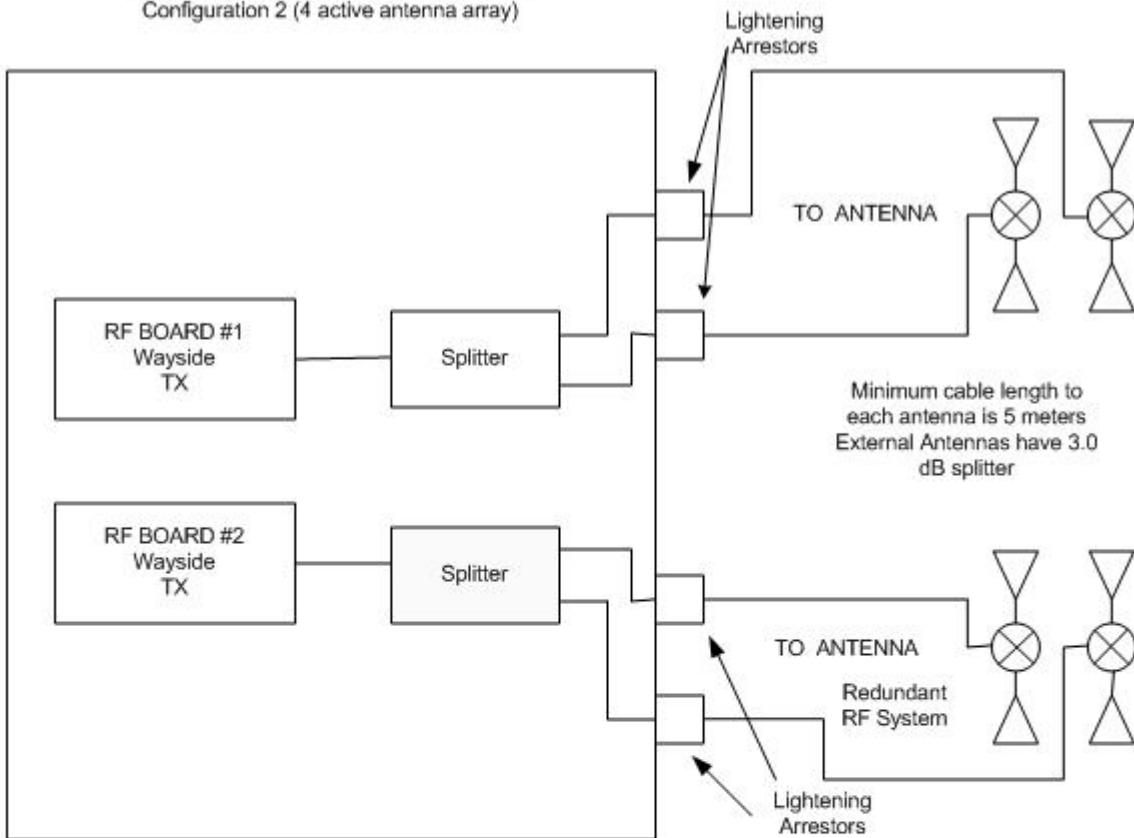


WAYSIDE TRANSMITTER ENCLOSURE  
Configuration 2 (4 active antenna array)



Configuration 2 systems will conform to this specification. Nominal RF output power from each TX board is 27.5 dBm. Only one RF board can be active at one time. The second RF board and antennas are redundant and are only used in the event the primary RF output board or antenna(s) fail. In this configuration two back to back antennas will be mounted on the same mast with separate mast for each pair. The redundant antenna system will use the same masts as the primary antenna system. The nominal loss in the RF splitter is 3 dB, lightning arrestor loss is approximately 0.1 dB and the nominal cable loss is 1.8 dB for a 5 meter length. Internal cables have 0.3 dB loss each for a total of 0.6 dB in each path. All wayside transmitter installations will have a minimum of 5 meters of antenna cable length and most will be longer. Compliance with all power levels is based on input power to the antenna as stipulated in the FCC interpretation letter that is part of this filing. For all antenna configurations, compliance with the EIRP limit is based on measurements made on an open area test site using the substitution technique as requested by the FCC.

Antennas used in the configuration will be 13.9 dBi yagi, 9 dBi horn or 6 dBi horn. Back to back antennas can be the same or mixed. For example, a 13.9 dBi and a 9 or 6 dBi can be mounted back to back.

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Output Power Measurements, 10 Meter Separation Converging

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	4	19.0	0	n	35.6	Wayside	0.30
2441	13.9	4	19.0	0	n	35.8	Wayside	0.40
2474	13.9	4	19.0	0	n	35.5	Wayside	0.10
2408	9	4	19.0	0	n	29.8	Wayside	0.30
2441	9	4	19.0	0	n	29.9	Wayside	0.40
2474	9	4	19.0	0	n	29.7	Wayside	0.10
2408	6	4	19.0	0	n	26.7	Wayside	0.30
2441	6	4	19.0	0	n	26.8	Wayside	0.40
2474	6	4	19.0	0	n	26.7	Wayside	0.10

Table 3 (d)

Output Power Measurements, 3 Meter Separation Parallel

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	4	19.0	0	n	32.4	Wayside	0.30
2441	13.9	4	19.0	0	n	32.5	Wayside	0.40
2474	13.9	4	19.0	0	n	32.3	Wayside	0.10
2408	9	4	19.0	0	n	27.4	Wayside	0.30
2441	9	4	19.0	0	n	27.5	Wayside	0.40
2474	9	4	19.0	0	n	27.4	Wayside	0.10
2408	6	4	19.0	0	n	24.4	Wayside	0.30
2441	6	4	19.0	0	n	24.5	Wayside	0.40
2474	6	4	19.0	0	n	24.4	Wayside	0.10

Table 3(e)

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## Output Power Measurements 1 Meter Separation Diverging

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	4	19.0	0	n	34.4	Wayside	0.30
2441	13.9	4	19.0	0	n	34.6	Wayside	0.40
2474	13.9	4	19.0	0	n	34.3	Wayside	0.10
2408	9	4	19.0	0	n	29.5	Wayside	0.30
2441	9	4	19.0	0	n	29.5	Wayside	0.40
2474	9	4	19.0	0	n	29.4	Wayside	0.10
2408	6	4	19.0	0	n	26.4	Wayside	0.30
2441	6	4	19.0	0	n	26.5	Wayside	0.40
2474	6	4	19.0	0	n	26.3	Wayside	0.10

Table 3(f)

**Configuration 3**

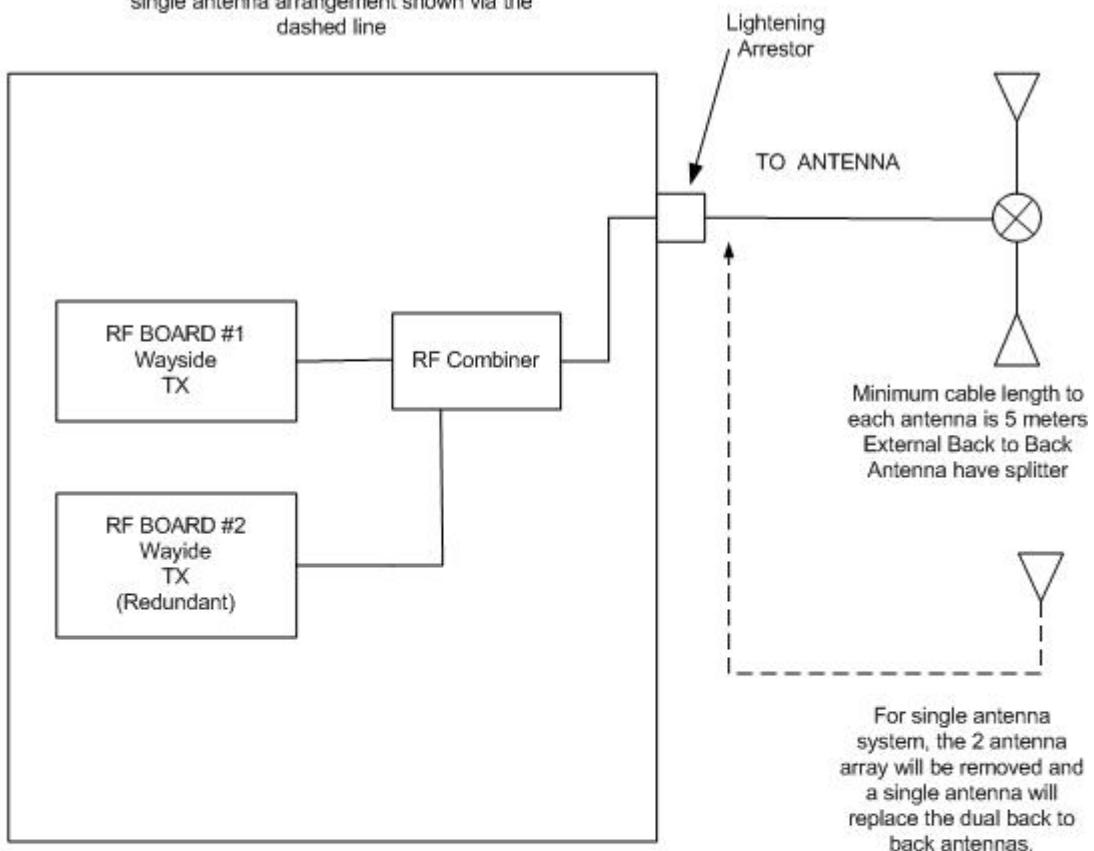
Following is configuration diagram No.3 for the wayside transmitter. If for any reason one antenna is removed, the unused RF port feeding that antenna will be terminated with a 50 ohm pad. Removal of an antenna will result in slightly lower values of EIRP. This will always be the case due to the maximizing process during testing whereby the antennas were manipulated and oriented, within the constraints of the permitted mounting variations, during testing to produce worst case results. Note that one RF board is a redundant board intended to provide backup service in the event the primary RF board fails. Such an arrangement provides maximum security and safety for special applications in the subway control system.

In this configuration the typical antenna arrangement will be back-to-back using the following antennas: 13.9 dBi yagi, 9 dBi horn or 6 dBi horn. For some applications, only a single antenna will be used. All antenna configurations were tested and, in conformance with Commission policy, the data presented for the highest gain single antenna which is the 13.9 dBi antenna.

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WAYSIDE TRANSMITTER ENCLOSURE

Configuration 3 (2 antenna array)  
(2 antenna array may be replaced by the  
single antenna arrangement shown via the  
dashed line)



Each configuration 3 transmitter installed will conform to this specification. Nominal RF output power from each TX board is 27.5 dBm. Only one RF board can be active at one time. The second RF board is redundant and is only used in the event the primary RF output board fails. The nominal loss in the RF combiner is 3 dB, lightning arrestor loss is approximately 0.1 dB and the nominal cable loss is 1.8 dB for a 5 meter length. Internal cables have 0.3 dB loss each for a total of 0.6 dB in each path. All wayside transmitter installations will have a minimum of 5 meters of antenna cable length and most will be longer. Compliance with all power levels is based on input power to the antenna as stipulated in the FCC interpretation letter that is part of this filing. For all antenna configurations, compliance with the EIRP limit is based on measurements made on an open area test site using the substitution technique as requested by the FCC.

Antennas may be 13.9 dBi yagi, 9 or 6 dBi horn or they may be mixed. For example, a 13.9 dBi antenna may have a 9 dBi antenna in a back to back arrangement.

Single antenna configuration will use one of the following antennas: 6 dBi omni directional, 6 dBi horn or 9 dBi horn, or 13.9 dBi yagi.

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Output Power Measurements, Dual Antenna Array

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	2	19.0	0	n	33.3	Wayside	0.30
2441	13.9	2	19.0	0	n	33.4	Wayside	0.40
2474	13.9	2	19.0	0	n	33.3	Wayside	0.10
2408	9	2	19.0	0	n	28.4	Wayside	0.30
2441	9	2	19.0	0	n	28.5	Wayside	0.40
2474	9	2	19.0	0	n	28.4	Wayside	0.10
2408	6	2	19.0	0	n	25.4	Wayside	0.30
2441	6	2	19.0	0	n	25.4	Wayside	0.40
2474	6	2	19.0	0	n	25.6	Wayside	0.10

Table 3 (g)

Output Power Measurements Single, Antenna

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	1	22.0	0	n	35.6	Wayside	3.0
2441	13.9	1	22.0	0	n	35.8	Wayside	3.6
2474	13.9	1	22.0	0	n	35.7	Wayside	3.8
2408	9	1	22.0	0	n	na	Wayside	3.0
2441	9	1	22.0	0	n	na	Wayside	3.6
2474	9	1	22.0	0	n	na	Wayside	3.8
2408	6	1	22.0	0	n	na	Wayside	3.0
2441	6	1	22.0	0	n	na	Wayside	3.6
2474	6	1	22.0	0	n	Na	Wayside	3.8

Table 3 (h)

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Minimum Standard - The transmitter peak output power delivered to the antenna input shall not exceed 1 watt. Max EIRP shall not exceed 36 dBm.

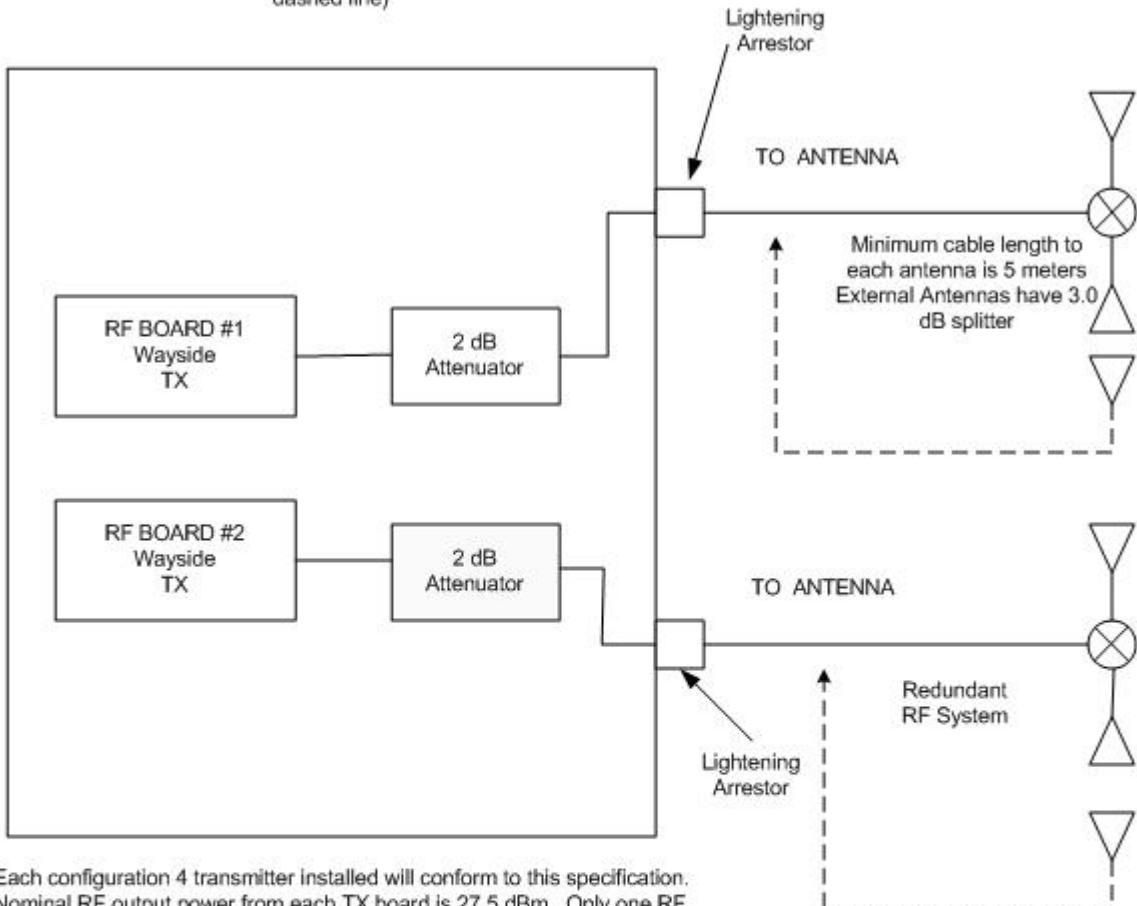
**REMARKS:****PASS*****Configuration 4***

Following is configuration diagram No.4 for the wayside transmitter. If for any reason one antenna is removed, the unused RF port feeding that antenna will be terminated with a 50 ohm pad. Removal of an antenna will result in slightly lower values of EIRP. This will always be the case due to the maximizing process during testing whereby the antennas were manipulated and oriented, within the constraints of the permitted mounting variations, during testing to produce worst case results. Note that one system is redundant and is intended to provide backup service and is activated only in the event the primary system fails. Such an arrangement provides maximum security and safety for special applications in the subway control system.

In this configuration the typical antenna arrangement will be back-to-back using the following antennas: 13.9 dBi yagi, 9 dBi horn or 6 dBi horn. For some applications, only a single antenna will be used. All antenna configurations were tested and, in conformance with Commission policy, the data presented for the highest gain single antenna which is the 9 dBi horn antenna.

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WAYSIDE TRANSMITTER ENCLOSURE  
Configuration 4 (2 active antenna array,  
2 antenna array may be replaced by the  
single antenna arrangement shown via the  
dashed line)



Each configuration 4 transmitter installed will conform to this specification. Nominal RF output power from each TX board is 27.5 dBm. Only one RF board can be active at one time. The second RF board and antenna is redundant and is only used in the event the primary RF output board or antenna fails. In this configuration the back to back antennas will be mounted on the same mast. The nominal loss in the RF attenuator is 2 dB, lightning arrestor loss is approximately 0.1 dB and the nominal cable loss is 1.8 dB for a 5 meter length. Internal cables have 0.3 dB loss each for a total of 0.6 dB in each path. All wayside transmitter installations will have a minimum of 5 meters of antenna cable length and most will be longer. Compliance with all power levels is based on input power to the antenna as stipulated in the FCC interpretation letter that is part of this filing. For all antenna configurations, compliance with the EIRP limit is based on measurements made on an open area test site using the substitution technique as requested by the FCC.

Dual antennas used in this configuration will be 13.9 yagis, 9 dBi horns or 6 dBi horns. Back to back antennas can be the same or mixed. For example, a 9 dBi antenna can be mixed with a 6 dBi antenna.

Single antenna configurations may use 9 dBi horn, 6 dBi omni or 6 dBi horn antenna.

For single antenna system, the 2 antenna array and splitter will be removed and a single antenna will replace the dual back to back antennas.

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Output Power Measurements for Dual Antenna

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	13.9	2	20.0	2	n	35.0	Wayside	2.0
2441	13.9	2	20.0	2	n	35.2	Wayside	2.1
2474	13.9	2	20.0	2	n	35.0	Wayside	2.2
2408	9	2	20.0	2	n	29.0	Wayside	2.0
2441	9	2	20.0	2	n	29.4	Wayside	2.1
2474	9	2	20.0	2	n	29.0	Wayside	2.2
2408	6	2	20.0	2	n	26.3	Wayside	2.0
2441	6	2	20.0	2	n	26.4	Wayside	2.1
2474	6	2	20.0	2	n	26.4	Wayside	2.2

Table 3(i)

Output Power Measurements for Single Antenna

Frequency MHz	Antenna Gain dBi	Number of Antennas	Conducted Power to Antenna dBm	Attenuation Added dB	Power Reduced from nominal y/n	Measured EIRP dBm	System Type	Power Spec Den dBm
2408	9	1	23.0	2	n	32.0	Wayside	5.28
2441	9	1	23.0	2	n	32.1	Wayside	4.69
2474	9	1	23.0	2	n	32.0	Wayside	4.37
2408	6 Horn	1	23.0	2	n	na	Wayside	
2441	6 Horn	1	23.0	2	n	na	Wayside	
2474	6 Horn	1	23.0	2	n	na	Wayside	
2408	6 Omni	1	23.0	2	n	na	Wayside	
2441	6 Omni	1	23.0	2	n	na	Wayside	
2474	6 Omni	1	23.0	2	n	na	Wayside	

Table 3(j)

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Minimum Standard - The transmitter peak output power delivered to the antenna input shall not exceed 1 watt. Max EIRP shall not exceed 36 dBm. The maximum EIRP for any of the above 4 configurations is 35.8 dBm.

**REMARKS:****PASS**

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## **§15.247 (d) Power Spectral Density**

Minimum Standard - The transmitted power density averaged over any 1 second interval shall not be greater than 8dBm in any 3kHz bandwidth within these bands. Measurements were made on a spectrum analyzer using the following settings.

Res. Bandwidth =	3 kHz (10dB/div)
Vid. BW =	3 kHz
Span =	30 MHz
Ref. Level	23.6 dBm
Sweep	1000 sec

dBm  $\Rightarrow$  Limit < 8dBm

**Please see data in Above Tables and the PSD Plots**

**Submitted with the file as "emissions plots"**

Minimum Standard - The transmitter power density averaged over a 1 second interval shall not be greater than 8dBm in any 3 kHz BW within these bands based on measurements at the input to the radiating antenna under investigation. The maximum PSD for any of the above 4 configurations was 5.3 dBm.

**REMARKS:**

**PASS**

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## 15.247(c) SPURIOUS EMISSIONS MEASUREMENTS

### Configuration 1

#### Transmitter With Quad Antenna Array Attached

Operating Frequencies: 2408 MHz, 2441 MHz, and 2474 MHz

Distance of Measurements: 3 meters or 10 meters using substitution technique

As requested by the FCC, this data was measured in terms of EIRP and is presented as dB below the carrier measurements for non-restricted band frequencies and in dBuV/m for restricted bands. The data tables below specify the antenna to which it applies. A single back-to-back 4-antenna array (see configuration 1 diagram) will be active at one time. Nine dBi or 6-dBi antennas may be substituted for both forward or both rearward 13.9 dBi antenna in some cases. Antennas will be substituted only in pairs facing the same direction. Any unused RF ports will be terminated in 50 ohms in actual installations. Worst case data is presented below.

13.9 dBi Yagi Antennas

Fund Freq. MHz	Spurious Emissions			Fund Freq. MHz	Spurious Emissions			Fund Freq. MHz	Spurious Emissions		
	Freq MHz	dBc	dBuV/m @3m		Freq MHz	dBc	dBuV/m @3m		Freq MHz	dBc	dBuV/m @3m
2408	4816	-100.3	27.9	2441	4882	-100.2	28.1	2474	4948	-100.3	27.9
2408	7224	-122.2	6.0	2441	7323	-122.1	6.2	2474	7422	-122.4	5.9
2408	9632	-122.3		2441	9764	-122.2	6.1	2474	9896	-122.6	

Table 4 (a)

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## 9 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-100.9	22.7	2441	4882	-100.7	23	2474	4948	-100.8	22.8
2408	7224	-122.5	1.1	2441	7323	122.6	1.2	2474	7422	-122.6	1.2
2408	9632	-122.7	0.9	2441	9764	122.8	1.0	2474	9896	-122.7	1.1

Table 4 (b)

## 6 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-100.7	20.0	2441	4882	-100.6	20.2	2474	4948	-100.7	19.9
2408	7224	-122.6	1.9	2441	7323	-122.5	-1.7	2474	7422	-122.8	-2.2
2408	9632	-123.5	-2.8	2441	9764	123.1	-2.3	2474	9896	-122.7	-2.8

Table 4 (c)

## Configuration 2

## Transmitter With Quad Antenna Array Attached

Operating Frequencies: 2408 MHz, 2441 MHz, and 2474 MHz

Distance of Measurements: 3 meters or 10 meters using substitution technique

As requested by the FCC, this data was measured in terms of EIRP and is presented as dB below the carrier measurements for non-restricted band frequencies and in dBuV/m for restricted bands. The data tables below specify the antenna to which it applies. A single back-to-back 4-antenna array (see configuration 2 diagram) will be active at one time. Nine dBi or 6-dBi antennas may be substituted for both forward or both rearward 13.9 dBi antenna in some cases. Antennas will be substituted only in pairs facing the same direction. Any unused RF ports will be

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terminated in 50 ohms in actual installations. Worst case data is presented below.

13.9 dBi Yagi Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq.	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m
MHz	MHz		@3m	MHz	MHz		@3m	MHz	MHz		@3m
2408	4816	-100.1	30.7	2441	4882	-100.1	30.9	2474	4948	-100.1	30.6
2408	7224	-120.8	10.0	2441	7323	-120.8	10.2	2474	7422	-120.8	9.9
2408	9632	-120.6	10.2	2441	9764	-120.6	10.4	2474	9896	-120.6	9.8

Table 4 (d)

9 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m
MHz	MHz		@3m	MHz	MHz		@3m	MHz	MHz		@3m
2408	4816	-99.3	25.7	2441	4882	-99.2	25.9	2474	4948	-99.3	25.6
2408	7224	-120.8	4.2	2441	7323	120.6	4.5	2474	7422	-120.7	4.2
2408	9632	-121.0	4.0	2441	9764	120.8	4.3	2474	9896	-120.7	4.2

Table 4 (e)

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6 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-98	23.9	2441	4882	-97.8	24.2	2474	4948	-98.07	23.9
2408	7224	-119.5	2.4	2441	7323	-119.5	2.5	2474	7422	-119.7	2.4
2408	9632	-119.7	2.2	2441	9764	119.9	2.1	2474	9896	-119.9	2.0

Table 4(f)

**Configuration 3**

**Transmitter With Dual Back-To-Back Antennas Attached**

Operating Frequencies: 2408 MHz, 2441 MHz, and 2474 MHz

Distance of Measurements: 3 meters or 10 meters using substitution technique

As requested by the FCC, this data was measured in terms of EIRP and is presented as dB below the carrier measurements for non-restricted band frequencies and in dBuV/m for restricted bands. The data tables below specify the antenna to which it applies. A single back-to-back antenna array (see configuration 3 diagram) will be active at one time. The second RF board is redundant in case of failure of the primary RF board. A nine dBi or 6-dBi antenna may be substituted for one of the 13.9 dBi antennas. Any unused RF ports will be terminated in 50 ohms in actual installations. Worst case data is presented below.

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13.9 dBi Yagi Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq. MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-98.7	29.9	2441	4882	-97.5	31.2	2474	4948	--98.3	30..2
2408	7224	-120.5	8.0	2441	7323	-120.8	8.2	2474	7422	-119.5	9.0
2408	9632	-120.6	8.0	2441	9764	-120.5	7.2	2474	9896	-120.6	97.9

Table 4 (g)

9 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-98.9	24.7	2441	4882	-98.7	25.0	2474	4948	-99.0	24.6
2408	7224	-120.5	3.1	2441	7323	120.5	3.3	2474	7422	-120.7	3.1
2408	9632	-120.6	3.0	2441	9764	120.5	3.2	2474	9896	-120.5	3.1

Table 4 (h)

6 dBi Horn Antennas

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-98	23.9	2441	4882	-97.8	24.2	2474	4948	-98.07	23.9
2408	7224	-119.5	2.4	2441	7323	-119.5	2.5	2474	7422	-119.7	2.4
2408	9632	-119.7	2.2	2441	9764	119.9	2.1	2474	9896	-119.9	2.0

Table 4 (i)

PCTEST™ PT. 15.247 REPORT		EVALUATION REPORT <b>Siemens Transportation Systems</b>				Reviewed By: Quality Manager	
Test Report S/N:15.220925502		PCTEST™		EUT Type: Transportation Control System		FCC ID: QSCWAYSIDE	Page 34 of 19

## Transmitter With Single Antenna Attached

Operating Frequencies: 2408 MHz, 2441 MHz, and 2474 MHz  
 Distance of Measurements: 3 meters or 30 meters using substitution technique

As requested by the FCC, this data was measured in terms of EIRP and is presented as dB below the carrier measurements for non-restricted band frequencies and in dBuV/m for restricted bands. The data tables below specify the antenna to which it applies. A single antenna (see configuration 3 diagram) will be active at one time. The second RF board is redundant in case of failure of the primary RF board. A nine dBi or 6-dBi antenna may be substituted for the 13.9 dBi antenna. Any unused RF ports will be terminated in 50 ohms in actual installations. Worst case data is presented below and per FCC policy for a single antenna, the data is presented for the highest gain antenna.

13.9 dBi Antenna (single)

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq.	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m	Freq	Freq	dBc	dBuV/m
MHz	MHz		@3m	MHz	MHz		@3m	MHz	MHz		@3m
2408	4816	-98.6	32.2	2441	4882	-98.7	32.3	2474	4948	-98.7	32.2
2408	7224	-120.6	10.2	2441	7323	-120.1	10.9	2474	7422	-120.6	10.2
2408	9632	-121.6	9.1	2441	9764	-121.3	9.7	2474	9896	-120.6	9.8

Table 4(j)

## **Configuration 4**

## Transmitter With Dual Back-To-Back Antennas Attached

Operating Frequencies: 2408 MHz, 2441 MHz, and 2474 MHz  
 Distance of Measurements: 3 meters or 10 meters using substitution technique

As requested by the FCC, this data was measured in terms of EIRP and is presented as dB below the carrier measurements for non-restricted band frequencies and in dBuV/m for restricted bands. The data tables below specify the antenna to which it applies. A single back-to-back antenna array (see configuration 4 diagram) will be active at one time. The second RF board is redundant in case of failure of the primary RF board. A nine dBi or 6-dBi antenna may be substituted for one of the 13.9 dBi antennas. The dual array may be replaced with a single 9dBi or 6dBi horn or omni antenna. Any unused RF ports will be terminated in 50 ohms in actual installations. Worst case data is presented below.

PCTEST™ PT. 15.247 REPORT		EVALUATION REPORT <b>Siemens Transportation Systems</b>			Reviewed By: Quality Manager
<b>PCTEST™</b> Engineering Laboratory, Inc.					
Test Report S/N:15.220925502		Test Dates: Sept 25 - Oct 1, 2002	EUT Type: Transportation Control System	FCC ID: QSCWAYSIDE	Page 35 of 19

13.9 dBi Antenna

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq. MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-100.3	29.9	2441	4882	-100.2	30.2	2474	4948	-100.0	30.2
2408	7224	-122.2	6.0	2441	7323	-122.1	6.2	2474	7422	-122.4	5.9
2408	9632	-122.3	5.9	2441	9764	-122.2	6.1	2474	9896	-122.6	5.7

Table 4 (k)

9 dBi Antenna

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-99.5	24.7	2441	4882	-99.6	25	2474	4948	-99.6	24.6
2408	7224	-121.5	3.2	2441	7323	121.6	3.2	2474	7422	-121.6	3.2
2408	9632	-122.7	0.9	2441	9764	122.8	1.0	2474	9896	-122.7	1.1

Table 4 (l)

6 dBi Antenna

Fund	Spurious Emissions			Fund	Spurious Emissions			Fund	Spurious Emissions		
Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m	Freq MHz	Freq MHz	dBc	dBuV/m @3m
2408	4816	-97.7	23.8	2441	4882	-97.7	23.9	2474	4948	-98.3	23.2
2408	7224	-119.1	2.4	2441	7323	-118.1	3.5	2474	7422	-118.2	3.3
2408	9632	-119.3	-2.2	2441	9764	119.4	-2.2	2474	9896	-119.3	-2.2

Table 4 (m)

PCTEST™ PT. 15.247 REPORT		EVALUATION REPORT <b>Siemens Transportation Systems</b>				Reviewed By: Quality Manager	
Test Report S/N:15.220925502		PCTEST™ Engineering Laboratory, Inc.		Test Dates: Sept 25 - Oct 1, 2002		EUT Type: Transportation Control System	
Test Report S/N:15.220925502		PCTEST™ Engineering Laboratory, Inc.		Test Dates: Sept 25 - Oct 1, 2002		FCC ID: QSCWAYSIDE	