

MEASUREMENT/TECHNICAL REPORT



Technologies Corporation

Norand Mobile Systems Division

EMC Test Laboratory

Intermec Technologies Corporation

2126

2.4 GHz Spread Spectrum Transmitter

REPORT NO: 981030-1

DATE: October 30 , 1998

APPENDIX G

SPREADSHEET FILES CONTAINED WITHIN:

sheets labled 981102.xls

File contains 18 pages as follows:

- 1-4 FCC TX Average Emissions
- 5-8 FCC TX Peak Emissions
- 9-10 Canada RX Emissions
- 11-14 ETSI 300-328 TX Emissions (reference)
- 15-16 ETSI 300-328 RX Emissions (reference)
- 17 RX Emissions below 1 GHz, Canada
- 18 RX Emissions below 1 GHz, ETSI 300-328 (reference)

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/02/98

Standard: FCC 15.247

Measurement System Calibration Date: 3/2/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	AVERAGE Limit @ 3 Meters < 1 GHz, 1 Meter > 1 GHz dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
Low Channel 01		2412.000 MHz						
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	17.7	1.7	23.1		42.5	64	-21.5
(IF * 3)	Hor	27.9	1.7	23.1		52.7	64	-11.3
1408	Vert	18.0	1.9	24.3		44.2	64	-19.8
(IF * 4)	Hor	26.1	1.9	24.3		52.3	64	-11.7
1760	Vert	18.5	4.3	25.8		48.6	64	-15.4
(IF * 5)	Hor	26.5	4.3	25.8		56.6	64	-7.4
2060	Vert	42.8	4.2	27.1	33.6	40.5	64	-23.5
(Fc-IF)	Hor	41.4	4.2	27.1	33.6	39.1	64	-24.9
2412	Vert		4.0	28.0				
(Fc)	Hor		4.0	28.0				
2816	Vert	42.1	4.2	29.3	33.8	41.8	64	-22.2
(IF*8)	Hor	44.9	4.2	29.3	33.8	44.6	64	-19.4
3468	Vert	34.4	3.8	30.6	33.8	35.0	64	-29.0
(Fc+IF*3)	Hor	32.5	3.8	30.6	33.8	33.1	64	-30.9
4824	Vert	53.0	4.8	32.8	32.9	57.7	64	-6.3
(Fc * 2)	Hor	57.3	4.8	32.8	32.9	62.0	64	-2.0
7236	Vert	39.7	6.3	36.8	33.3	49.5	64	-14.5
(Fc * 3)	Hor	39.8	6.3	36.8	33.3	49.6	64	-14.4
9648	Vert	36.4	7.1	37.4	33.5	47.4	64	-16.6
(Fc * 4)	Hor	34.4	7.1	37.4	33.5	45.4	64	-18.6
12060	Vert	30.3	7.9	39.1	32.4	44.9	64	-19.1
(Fc * 5)	Hor	30.1	7.9	39.1	32.4	44.7	64	-19.3
14472	Vert	31.5	8.8	40.8	31.3	49.8	64	-14.2
(Fc * 6)	Hor	31.7	8.8	40.8	31.3	50.0	64	-14.0
16884	Vert	31.4	11.1	40.3	31.1	51.7	64	-12.3
(Fc * 7)	Hor	31.6	11.1	40.3	31.1	51.9	64	-12.1
19296	Vert	39.1	1.9	44.2	31.1	54.1	64	-9.9
(Fc * 8)	Hor	39.3	1.9	44.2	31.1	54.3	64	-9.7
21708	Vert	38.1	1.4	44.3	30.5	53.3	64	-10.7
(Fc * 9)	Hor	38.4	1.4	44.3	30.5	53.6	64	-10.4
24120	Vert	38.8	1.1	45.1	30.8	54.2	64	-9.8
(Fc * 10)	Hor	38.9	1.1	45.1	30.8	54.3	64	-9.7

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

EMC Test Laboratory

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Standard: FCC 15.247

Measurement System Calibration Date: 3/2/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	AVERAGE Limit @ 3 Meters < 1 GHz, 1 Meter > 1 GHz dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
Middle Channel 7	2442.000	MHz						
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	17.7	1.7	23.1		42.5	64	-21.5
(IF * 3)	Hor	27.9	1.7	23.1		52.7	64	-11.3
1408	Vert	18.0	1.9	24.3		44.2	64	-19.8
(IF * 4)	Hor	26.1	1.9	24.3		52.3	64	-11.7
1760	Vert	18.5	4.3	25.8		48.6	64	-15.4
(IF * 5)	Hor	26.5	4.3	25.8		56.6	64	-7.4
2090	Vert	46.2	4.0	27.2	33.7	43.7	64	-20.3
(Fc-IF)	Hor	38.2	4.0	27.2	33.7	35.7	64	-28.3
2442	Vert		3.9	28.1				
(Fc)	Hor		3.9	28.1				
2816	Vert	43.2	4.3	29.5	32.9	44.1	64	-19.9
(IF*8)	Hor	45.2	4.3	29.5	32.9	46.1	64	-17.9
3498	Vert	32.7	3.7	30.7	32.9	34.2	64	-29.8
(Fc+IF*3)	Hor	31.8	3.7	30.7	32.9	33.3	64	-30.7
4884	Vert	53.7	4.7	32.9	32.9	58.4	64	-5.6
(Fc * 2)	Hor	53.8	4.7	32.9	32.9	58.5	64	-5.5
7326	Vert	35.5	6.0	37.2	33.3	45.4	64	-18.6
(Fc * 3)	Hor	39.7	6.0	37.2	33.3	49.6	64	-14.4
9768	Vert	37.8	6.7	37.6	33.4	48.7	64	-15.3
(Fc * 4)	Hor	35.2	6.7	37.6	33.4	46.1	64	-17.9
12210	Vert	30.0	7.8	39.2	32.4	44.6	64	-19.4
(Fc * 5)	Hor	30.2	7.8	39.2	32.4	44.8	64	-19.2
14652	Vert	31.3	9.0	40.5	31.4	49.4	64	-14.6
(Fc * 6)	Hor	31.3	9.0	40.5	31.4	49.4	64	-14.6
17094	Vert	31.2	11.4	41.5	31.1	53.0	64	-11.0
(Fc * 7)	Hor	31.2	11.4	41.5	31.1	53.0	64	-11.0
19536	Vert	39.2	1.4	44.0	31.3	53.3	64	-10.7
(Fc * 8)	Hor	39.4	1.4	44.0	31.3	53.5	64	-10.5
21978	Vert	38.2	2.0	44.7	30.4	54.5	64	-9.5
(Fc * 9)	Hor	38.5	2.0	44.7	30.4	54.8	64	-9.2
24420	Vert	38.9	2.3	45.6	31.3	55.5	64	-8.5
(Fc * 10)	Hor	39.0	2.3	45.6	31.3	55.6	64	-8.4

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Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	AVERAGE Limit @ 3 Meters < 1 GHz, 1 Meter > 1 GHz dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
High Channel 11	2462.000	MHz						
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	17.7	1.7	23.1		42.5	64	-21.5
(IF * 3)	Hor	27.9	1.7	23.1		52.7	64	-11.3
1408	Vert	18.0	1.9	24.3		44.2	64	-19.8
(IF * 4)	Hor	26.1	1.9	24.3		52.3	64	-11.7
1760	Vert	18.5	4.3	25.8		48.6	64	-15.4
(IF * 5)	Hor	26.5	4.3	25.8		56.6	64	-7.4
2110	Vert	45.7	4.0	27.3	33.8	43.2	64	-20.8
(Fc-IF)	Hor	41.0	4.0	27.3	33.8	38.5	64	-25.5
2462	Vert		3.8	28.2				
(Fc)	Hor		3.8	28.2				
2816	Vert	44.0	4.4	29.6	32.7	45.3	64	-18.7
(Fc+IF)	Hor	45.3	4.4	29.6	32.7	46.6	64	-17.4
3518	Vert	33.2	3.6	30.8	32.7	34.9	64	-29.1
(Fc+IF*3)	Hor	32.6	3.6	30.8	32.7	34.3	64	-29.7
4924	Vert	54.4	4.4	32.9	32.7	59.0	64	-5.0
(Fc * 2)	Hor	55.3	4.4	32.9	32.7	59.9	64	-4.1
7386	Vert	35.0	5.9	37.4	33.3	45.0	64	-19.0
(Fc * 3)	Hor	37.6	5.9	37.4	33.3	47.6	64	-16.4
9848	Vert	39.2	6.0	37.8	33.3	49.7	64	-14.3
(Fc * 4)	Hor	34.2	6.0	37.8	33.3	44.7	64	-19.3
12310	Vert	30.0	7.2	39.3	32.2	44.3	64	-19.7
(Fc * 5)	Hor	30.0	7.2	39.3	32.2	44.3	64	-19.7
14772	Vert	31.4	9.2	40.2	31.6	49.2	64	-14.8
(Fc * 6)	Hor	31.5	9.2	40.2	31.6	49.3	64	-14.7
17234	Vert	31.7	10.9	43.4	31.0	55.0	64	-9.0
(Fc * 7)	Hor	31.5	10.9	43.4	31.0	54.8	64	-9.2
19696	Vert	39.3	1.8	44.0	31.4	53.7	64	-10.3
(Fc * 8)	Hor	39.4	1.8	44.0	31.4	53.8	64	-10.2
22158	Vert	38.3	1.2	45.0	30.4	54.1	64	-9.9
(Fc * 9)	Hor	38.4	1.2	45.0	30.4	54.2	64	-9.8
24620	Vert	38.9	1.7	45.9	31.5	55.0	64	-9.0
(Fc * 10)	Hor	38.8	1.7	45.9	31.5	54.9	64	-9.1

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

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Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Test Date (mm/dd/yy): 11/02/98

Measurement System Calibration Date: 3/2/98

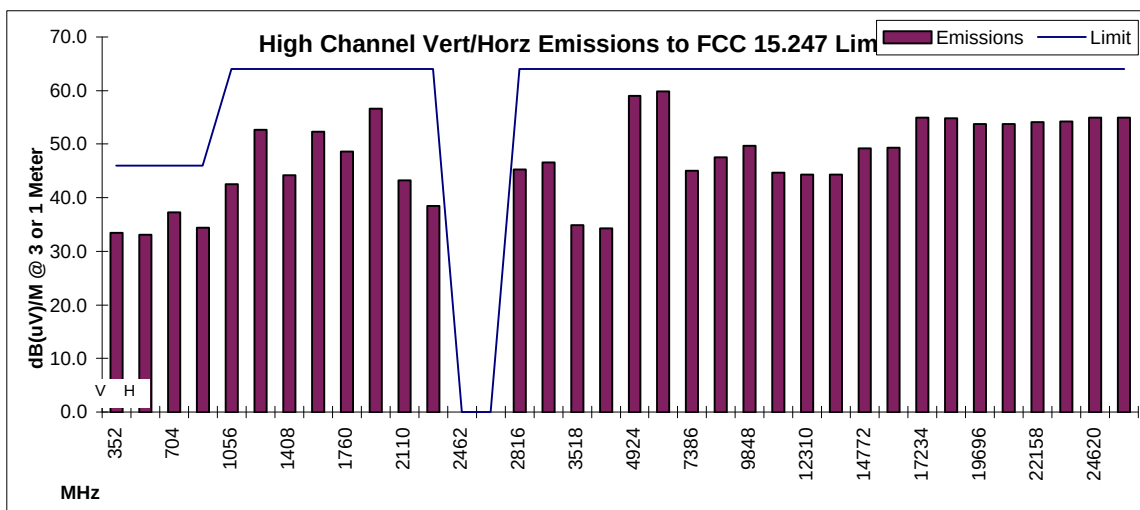
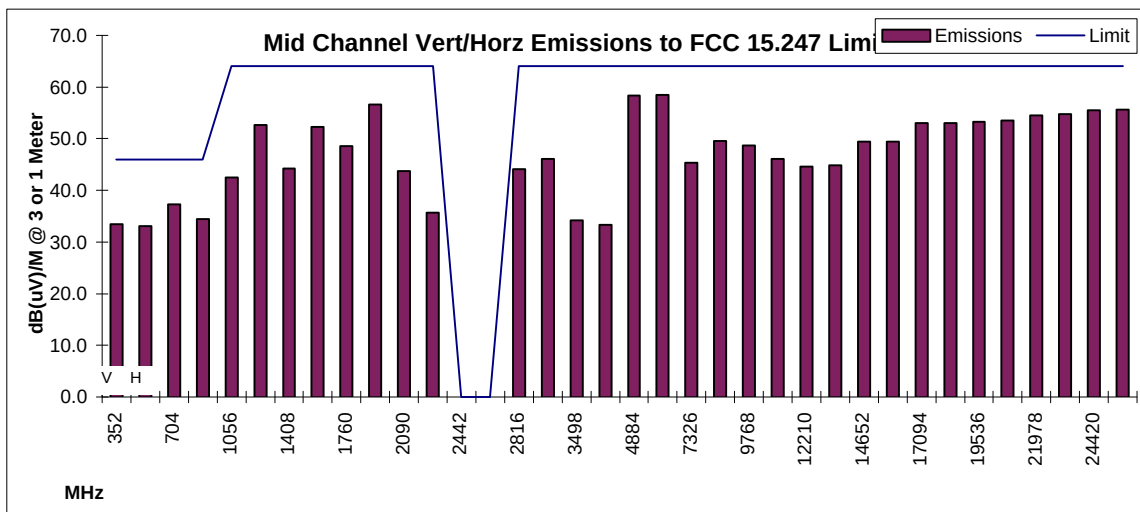
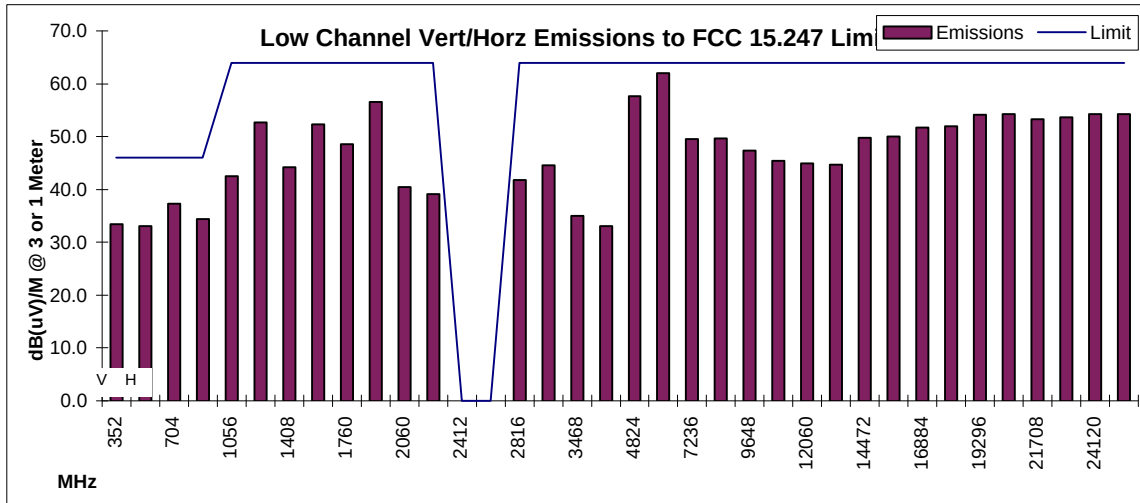
Intermec Technologies Corporation

Norand Mobile Systems Division

EMC Test Laboratory

Standard: FCC 15.247

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz



PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/02/98

Standard: FCC 15.247

Measurement System Calibration Date: 3/2/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 1 MHz

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	PEAK Limit @ 3 Meters < 1 GHz, 1 Meter > 1 GHz dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
Low Channel 01 2412.000 MHz								
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	28.3	1.7	23.1		53.1	84	-30.9
(IF * 3)	Hor	38.2	1.7	23.1		63.0	84	-21.0
1408	Vert	28.1	1.9	24.3		54.3	84	-29.7
(IF * 4)	Hor	35.8	1.9	24.3		62.0	84	-22.0
1760	Vert	21.1	4.3	25.8		51.2	84	-32.8
(IF * 5)	Hor	36.3	4.3	25.8		66.4	84	-17.6
2060	Vert	47.8	4.2	27.1	33.7	45.4	84	-38.6
(Fc-IF)	Hor	44.8	4.2	27.1	33.7	42.4	84	-41.6
2412	Vert		4.0	28.0				
(Fc)	Hor		4.0	28.0				
2816	Vert	46.8	4.2	29.3	32.9	47.4	84	-36.6
(IF*8)	Hor	49.2	4.2	29.3	32.9	49.8	84	-34.2
3468	Vert	42.8	3.8	30.6	32.9	44.3	84	-39.7
(Fc+IF*3)	Hor	41.9	3.8	30.6	32.9	43.4	84	-40.6
4824	Vert	56.0	4.8	32.8	32.9	60.7	84	-23.3
(Fc * 2)	Hor	59.9	4.8	32.8	32.9	64.6	84	-19.4
7236	Vert	46.1	6.3	36.8	33.3	55.9	84	-28.1
(Fc * 3)	Hor	46.8	6.3	36.8	33.3	56.6	84	-27.4
9648	Vert	44.4	7.1	37.4	33.5	55.4	84	-28.6
(Fc * 4)	Hor	44.1	7.1	37.4	33.5	55.1	84	-28.9
12060	Vert	41.5	7.9	39.1	32.4	56.1	84	-27.9
(Fc * 5)	Hor	40.9	7.9	39.1	32.4	55.5	84	-28.5
14472	Vert	42.6	8.8	40.8	31.3	60.9	84	-23.1
(Fc * 6)	Hor	42.1	8.8	40.8	31.3	60.4	84	-23.6
16884	Vert	42.7	11.1	40.3	31.1	63.0	84	-21.0
(Fc * 7)	Hor	42.5	11.1	40.3	31.1	62.8	84	-21.2
19296	Vert	50.4	1.9	44.2	31.1	65.4	84	-18.6
(Fc * 8)	Hor	50.0	1.9	44.2	31.1	65.0	84	-19.0
21708	Vert	49.7	1.4	44.3	30.5	64.9	84	-19.1
(Fc * 9)	Hor	49.4	1.4	44.3	30.5	64.6	84	-19.4
24120	Vert	50.3	1.1	45.1	30.8	65.7	84	-18.3
(Fc * 10)	Hor	50.2	1.1	45.1	30.8	65.6	84	-18.4

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

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a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
Middle Channel 7 2442.000 MHz								
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	28.3	1.7	23.1		53.1	84	-30.9
(IF * 3)	Hor	38.2	1.7	23.1		63.0	84	-21.0
1408	Vert	28.8	1.9	24.3		55.0	84	-29.0
(IF * 4)	Hor	35.8	1.9	24.3		62.0	84	-22.0
1760	Vert	21.1	4.3	25.8		51.2	84	-32.8
(IF * 5)	Hor	36.3	4.3	25.8		66.4	84	-17.6
2090	Vert	49.4	4.0	27.2	33.7	46.9	84	-37.1
(Fc-IF)	Hor	45.1	4.0	27.2	33.7	42.6	84	-41.4
2442	Vert		3.9	28.1				
(Fc)	Hor		3.9	28.1				
2816	Vert	47.1	4.3	29.5	32.9	48.0	84	-36.0
(IF*8)	Hor	48.2	4.3	29.5	32.9	49.1	84	-34.9
3498	Vert	42.3	3.7	30.7	32.9	43.8	84	-40.2
(Fc+IF*3)	Hor	41.8	3.7	30.7	32.9	43.3	84	-40.7
4884	Vert	56.6	4.7	32.9	32.9	61.3	84	-22.7
(Fc * 2)	Hor	57.0	4.7	32.9	32.9	61.7	84	-22.3
7326	Vert	44.4	6.0	37.2	33.3	54.3	84	-29.7
(Fc * 3)	Hor	46.6	6.0	37.2	33.3	56.5	84	-27.5
9768	Vert	44.7	6.7	37.6	33.4	55.6	84	-28.4
(Fc * 4)	Hor	44.5	6.7	37.6	33.4	55.4	84	-28.6
12210	Vert	40.8	7.8	39.2	32.4	55.4	84	-28.6
(Fc * 5)	Hor	41.5	7.8	39.2	32.4	56.1	84	-27.9
14652	Vert	42.7	9.0	40.5	31.4	60.8	84	-23.2
(Fc * 6)	Hor	42.2	9.0	40.5	31.4	60.3	84	-23.7
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(Fc * 7)	Hor	42.5	11.4	41.5	31.1	64.3	84	-19.7
19536	Vert	50.5	1.4	44.0	31.3	64.6	84	-19.4
(Fc * 8)	Hor	50.1	1.4	44.0	31.3	64.2	84	-19.8
21978	Vert	49.8	2.0	44.7	30.4	66.1	84	-17.9
(Fc * 9)	Hor	49.5	2.0	44.7	30.4	65.8	84	-18.2
24420	Vert	50.4	2.3	45.6	31.3	67.0	84	-17.0
(Fc * 10)	Hor	50.3	2.3	45.6	31.3	66.9	84	-17.1

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

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Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	PEAK Limit @ 3 Meters < 1 GHz, 1 Meter > 1 GHz dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
High Channel 11 2462.000 MHz								
352	Vert	16.7	1.7	15.0		33.4	46	-12.6
(IF)	Hor	16.4	1.7	15.0		33.1	46	-12.9
704	Vert	13.6	2.8	20.9		37.3	46	-8.7
(IF * 2)	Hor	10.7	2.8	20.9		34.4	46	-11.6
1056	Vert	28.3	1.7	23.1		53.1	84	-30.9
(IF * 3)	Hor	38.2	1.7	23.1		63.0	84	-21.0
1408	Vert	28.8	1.9	24.3		55.0	84	-29.0
(IF * 4)	Hor	35.8	1.9	24.3		62.0	84	-22.0
1760	Vert	21.1	4.3	25.8		51.2	84	-32.8
(IF * 5)	Hor	36.3	4.3	25.8		66.4	84	-17.6
2110	Vert	48.8	4.0	27.3	33.8	46.3	84	-37.7
(Fc-IF)	Hor	46.2	4.0	27.3	33.8	43.7	84	-40.3
2462	Vert		3.8	28.2				
(Fc)	Hor		3.8	28.2				
2816	Vert	47.7	4.4	29.6	32.7	49.0	84	-35.0
(Fc+IF)	Hor	48.9	4.4	29.6	32.7	50.2	84	-33.8
3518	Vert	42.2	3.6	30.8	32.7	43.9	84	-40.1
(Fc+IF*3)	Hor	42.4	3.6	30.8	32.7	44.1	84	-39.9
4924	Vert	57.3	4.4	32.9	32.7	61.9	84	-22.1
(Fc * 2)	Hor	58.8	4.4	32.9	32.7	63.4	84	-20.6
7386	Vert	44.3	5.9	37.4	33.3	54.3	84	-29.7
(Fc * 3)	Hor	45.3	5.9	37.4	33.3	55.3	84	-28.7
9848	Vert	45.0	6.0	37.8	33.3	55.5	84	-28.5
(Fc * 4)	Hor	43.8	6.0	37.8	33.3	54.3	84	-29.7
12310	Vert	40.3	7.2	39.3	32.2	54.6	84	-29.4
(Fc * 5)	Hor	41.6	7.2	39.3	32.2	55.9	84	-28.1
14772	Vert	42.6	9.2	40.2	31.6	60.4	84	-23.6
(Fc * 6)	Hor	41.8	9.2	40.2	31.6	59.6	84	-24.4
17234	Vert	42.8	10.9	43.4	31.0	66.1	84	-17.9
(Fc * 7)	Hor	42.3	10.9	43.4	31.0	65.6	84	-18.4
19696	Vert	50.6	1.8	44.0	31.4	65.0	84	-19.0
(Fc * 8)	Hor	50.2	1.8	44.0	31.4	64.6	84	-19.4
22158	Vert	49.9	1.2	45.0	30.4	65.7	84	-18.3
(Fc * 9)	Hor	49.6	1.2	45.0	30.4	65.4	84	-18.6
24620	Vert	50.4	1.7	45.9	31.5	66.5	84	-17.5
(Fc * 10)	Hor	50.3	1.7	45.9	31.5	66.4	84	-17.6

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

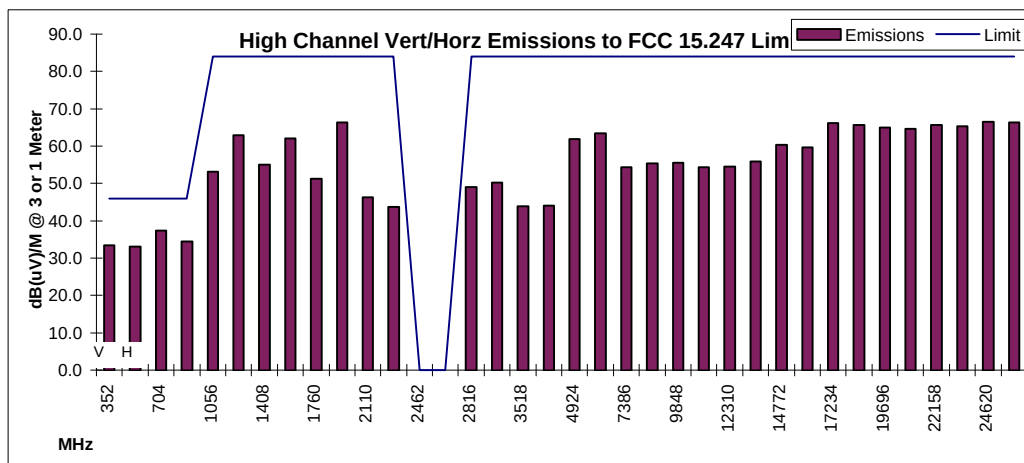
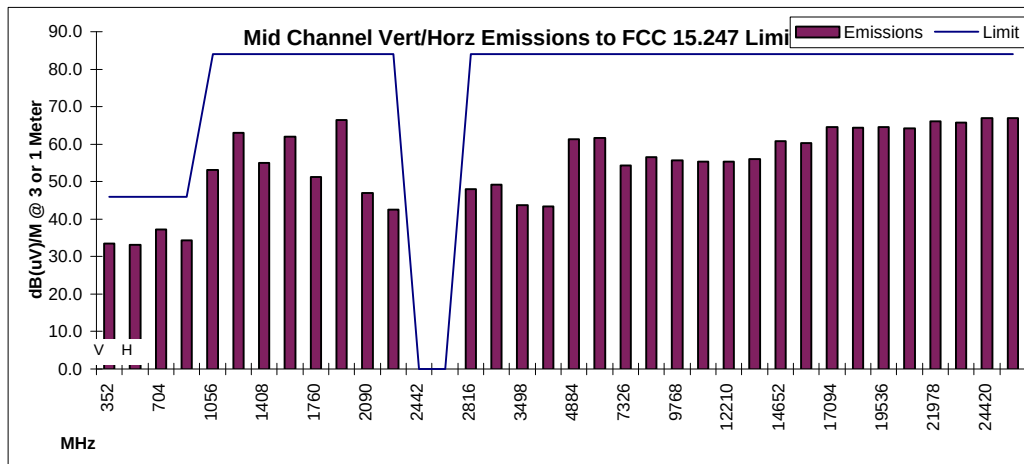
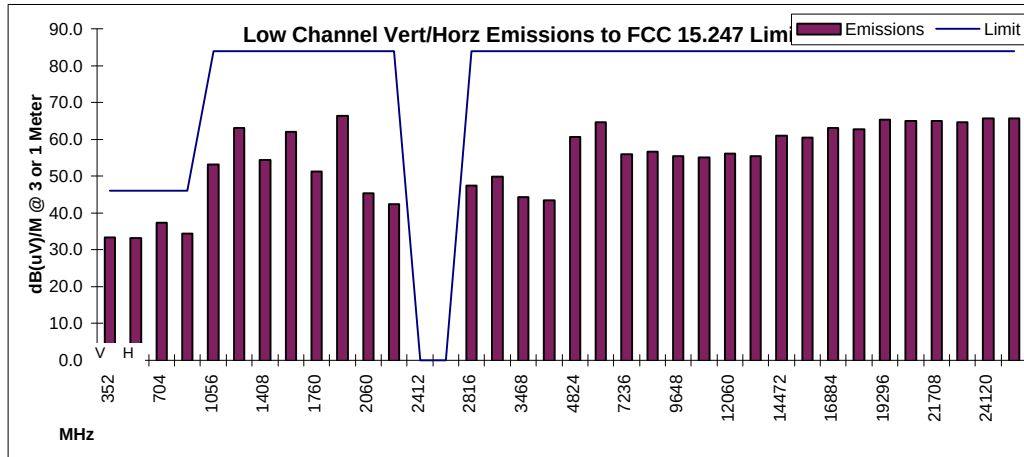
EMC Test Laboratory

Test Date (mm/dd/yy): 11/02/98

Standard: FCC 15.247

Measurement System Calibration Date: 3/2/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 1 MHz



RECEIVER RADIATED SPURIOUS EMISSIONS

Average Emissions Data Compared to Average Emissions Limit

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/02/98

Standard: Canada RSS-210/GL-36

Measurement System Calibration Date: 3/2/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	AVERAGE Limit @ 1 Meter dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
Low Channel 01 2412 MHz								
2060	Vert	45.0	3.1	27.1	33.6	41.6	64	-22.4
(Lo)	Hor	43.7	3.1	27.1	33.6	40.3	64	-23.7
4120	Vert	38.6	3.9	32.6	33.2	41.9	64	-22.1
(Lo * 2)	Hor	42.0	3.9	32.6	33.2	45.3	64	-18.7
6180	Vert	32.2	5.6	34.5	33.0	39.3	64	-24.7
(Lo * 3)	Hor	31.9	5.6	34.5	33.0	39.0	64	-25.0
8240	Vert	34.9	6.2	37.3	33.3	45.1	64	-18.9
(Lo * 4)	Hor	32.4	6.2	37.3	33.3	42.6	64	-21.4
10300	Vert	30.9	6.8	38.3	32.9	43.1	64	-20.9
(Lo * 5)	Hor	30.9	6.8	38.3	32.9	43.1	64	-20.9
12360	Vert	30.6	7.9	39.2	32.3	45.4	64	-18.6
(Lo * 6)	Hor	30.6	7.9	39.2	32.3	45.4	64	-18.6

Middle Channel 7 2442 MHz								
2090	Vert	44.0	3.0	27.2	33.6	40.6	64	-23.4
(Lo)	Hor	44.5	3.0	27.2	33.6	41.1	64	-22.9
4180	Vert	41.8	4.2	32.5	33.2	45.3	64	-18.7
(Lo * 2)	Hor	42.4	4.2	32.5	33.2	45.9	64	-18.1
6270	Vert	31.0	5.9	34.4	33.0	38.3	64	-25.7
(Lo * 3)	Hor	30.6	5.9	34.4	33.0	37.9	64	-26.1
8360	Vert	34.6	6.4	37.4	33.4	45.0	64	-19.0
(Lo * 4)	Hor	34.1	6.4	37.4	33.4	44.5	64	-19.5
10450	Vert	30.9	6.9	38.5	32.9	43.4	64	-20.6
(Lo * 5)	Hor	30.5	6.9	38.5	32.9	43.0	64	-21.0
12540	Vert	31.6	8.1	39.4	32.1	47.0	64	-17.0
(Lo * 6)	Hor	31.8	8.1	39.4	32.1	47.2	64	-16.8

High Channel 11 2462 MHz								
2110	Vert	44.6	3.0	27.3	33.6	41.3	64	-22.7
(Lo)	Hor	43.2	3.0	27.3	33.6	39.9	64	-24.1
4220	Vert	42.8	4.2	32.5	33.2	46.3	64	-17.7
(Lo * 2)	Hor	45.1	4.2	32.5	33.2	48.6	64	-15.4
6330	Vert	31.1	6.0	34.3	33.1	38.3	64	-25.7
(Lo * 3)	Hor	31.4	6.0	34.3	33.1	38.6	64	-25.4
8440	Vert	36.8	6.7	37.5	33.5	47.5	64	-16.5
(Lo * 4)	Hor	34.3	6.7	37.5	33.5	45.0	64	-19.0
10550	Vert	29.7	7.2	38.5	32.8	42.6	64	-21.4
(Lo * 5)	Hor	29.7	7.2	38.5	32.8	42.6	64	-21.4
12660	Vert	31.4	8.1	39.7	31.5	47.7	64	-16.3
(Lo * 6)	Hor	31.5	8.1	39.7	31.5	47.8	64	-16.2

RECEIVER RADIATED SPURIOUS EMISSIONS

Average Emissions Data Compared to Average Emissions Limit

FCC ID: EHA2126

Product: Intermec DSSS Type II Radio, Approval

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Test Date (mm/dd/yy): 11/02/98

Measurement System Calibration Date: 3/2/98

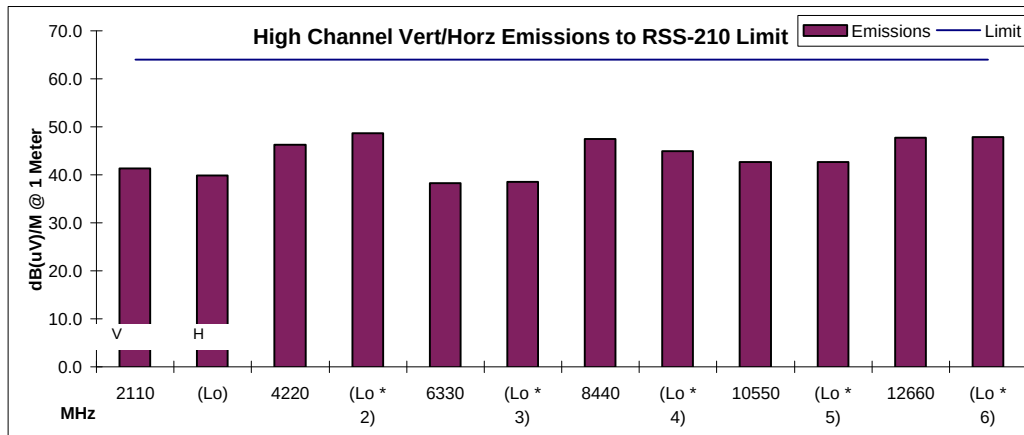
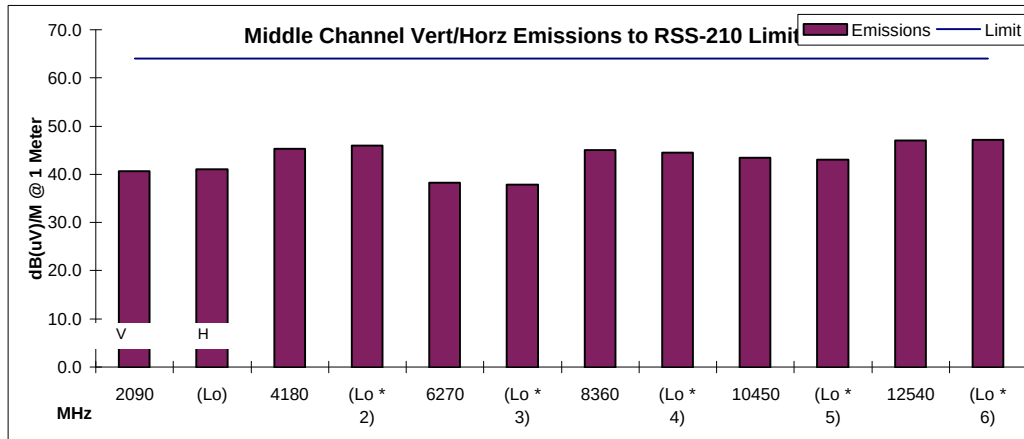
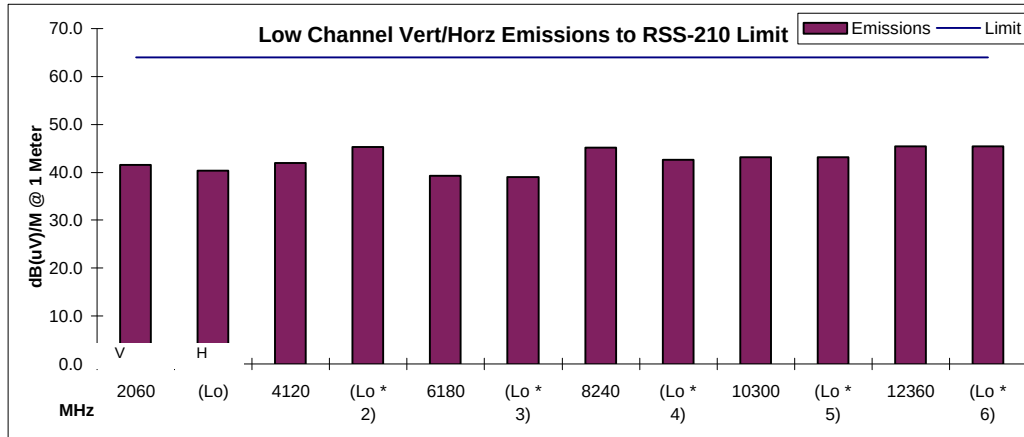
Intermec Technologies Corporation

Norand Mobile Systems Division

EMC Test Laboratory

Standard: Canada RSS-210/GL-36

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz



TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/02/98

EMC Test Laboratory

Measurement System Calibration Date: 2/26/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Standard: ETS 300-328

Data recorded here is based upon FCC data sheets within this file

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	Spur Meas. (dBm)	Generator 0 dBm Ref. Level	Caculated Generator Substitution (dBm)	Antenna Comp (dB)	Cable Comp (dB)	Generator Reference at Antenna (dBm)	Spec Limit (dBm)	Margin (dB)
a	b	c	d	e	f	g	h	i	j	k
(formula)			(=c-107)		(=d-e)			(=f-g+h)		(=i-j)
Low Channel 01										
	2412	MHz								
352	Vert	16.7	-90.3	-27.4	-62.9		0.6	-63.5	-36	-27.5
(IF)	Hor	16.4	-90.6	-24.0	-66.6		0.6	-67.2	-36	-31.2
704	Vert	13.6	-93.4	-35.8	-57.6		1.0	-58.6	-36	-22.6
(IF * 2)	Hor	10.7	-96.3	-31.4	-64.9		1.0	-65.9	-36	-29.9
1056	Vert	17.7	-89.3	-26.3	-63.0	4.1	1.4	-60.3	-30	-30.3
(IF * 3)	Hor	27.9	-79.1	-26.1	-53.0	4.1	1.4	-50.3	-30	-20.3
1408	Vert	18.0	-89.0	-26.2	-62.8	6.3	1.7	-58.2	-30	-28.2
(IF * 4)	Hor	26.1	-80.9	-26.9	-54.0	6.3	1.7	-49.4	-30	-19.4
1760	Vert	18.5	-88.5	-30.9	-57.6	6.5	2.0	-53.1	-30	-23.1
(IF * 5)	Hor	26.5	-80.5	-30.9	-49.6	6.5	2.0	-45.1	-30	-15.1
2060	Vert	42.8	-107.0	2.8	-109.8	6.3	2.2	-105.7	-30	-75.7
(Fc-IF)	Hor	41.4	-65.6	2.8	-68.4	6.3	2.2	-64.3	-30	-34.3
2412	Vert		-107.0	-31.2	-75.8	7.4	3.5			
(Fc)	Hor		-107.0	-31.1	-75.9	7.4	3.5			
2816	Vert	42.1	-64.9	0.8	-65.7	6.5	2.6	-61.8	-30	-31.8
(IF*8)	Hor	44.9	-62.1	0.7	-62.8	6.5	2.6	-58.9	-30	-28.9
3468	Vert	34.4	-72.6	-1.2	-71.4	6.9	2.9	-67.4	-30	-37.4
(Fc+IF*3)	Hor	32.5	-74.5	-1.6	-72.9	6.9	2.9	-68.9	-30	-38.9
4824	Vert	53.0	-54.0	-4.9	-49.1	7.3	3.7	-45.5	-30	-15.5
(Fc * 2)	Hor	57.3	-49.7	-5.1	-44.6	7.3	3.7	-41.0	-30	-11.0
7236	Vert	39.7	-67.3	-12.1	-55.2	6.0	3.8	-53.0	-30	-23.0
(Fc * 3)	Hor	39.8	-67.2	-12.1	-55.1	6.0	3.8	-52.9	-30	-22.9
9648	Vert	36.4	-88.5	-15.5	-73.0	7.9	6.2	-71.3	-30	-41.3
(Fc * 4)	Hor	34.4	-72.6	-15.1	-57.5	7.9	6.2	-55.8	-30	-25.8
12060	Vert	30.3	-60.8	-21.4	-39.4	6.5	6.5	-39.4	-30	-9.4
(Fc * 5)	Hor	30.1	-76.9	-21.4	-55.5	6.5	6.5	-55.5	-30	-25.5

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/02/98

EMC Test Laboratory

Measurement System Calibration Date: 2/26/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Standard: ETS 300-328

Data recorded here is based upon FCC data sheets within this file

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	Spur Meas. (dBm)	Generator 0 dBm Ref. Level	Calculated Generator Substitution (dBm)	Antenna Comp (dB)	Cable Comp (dB)	Generator Reference at Antenna (dBm)	Spec Limit (dBm)	Margin (dB)
a	b	c	d	e	f	g	h	i	j	k
(formula)			(=c-107)		(=d-e)			(=f-g+h)		(=i-j)
Middle Channel 7	2442	MHz								
352	Vert	16.7	-90.3	-27.4	-62.9		0.6	-63.5	-36	-27.5
(IF)	Hor	16.4	-90.6	-24.0	-66.6		0.6	-67.2	-36	-31.2
704	Vert	13.6	-93.4	-35.8	-57.6		1.0	-58.6	-36	-22.6
(IF * 2)	Hor	10.7	-96.3	-31.4	-64.9		1.0	-65.9	-36	-29.9
1056	Vert	17.7	-89.3	-26.3	-63.0	4.1	1.4	-60.3	-30	-30.3
(IF * 3)	Hor	27.9	-79.1	-26.1	-53.0	4.1	1.4	-50.3	-30	-20.3
1408	Vert	18.0	-89.0	-26.2	-62.8	6.3	1.7	-58.2	-30	-28.2
(IF * 4)	Hor	26.1	-80.9	-26.9	-54.0	6.3	1.7	-49.4	-30	-19.4
1760	Vert	18.5	-88.5	-30.9	-57.6	6.5	2.0	-53.1	-30	-23.1
(IF * 5)	Hor	26.5	-80.5	-30.9	-49.6	6.5	2.0	-45.1	-30	-15.1
2090	Vert	46.2	-60.8	3.0	-63.8	6.3	2.2	-59.7	-30	-29.7
(Fc-IF)	Hor	38.2	-68.8	3.0	-71.8	6.3	2.2	-67.7	-30	-37.7
2442	Vert		-107.0	-32.2	-74.8	7.6	3.3			
(Fc)	Hor		-107.0	-32.1	-74.9	7.6	3.3			
2816	Vert	43.2	-63.8	0.7	-64.5	6.5	2.6	-60.6	-30	-30.6
(IF*8)	Hor	45.2	-61.8	0.7	-62.5	6.5	2.6	-58.6	-30	-28.6
3498	Vert	32.7	-74.3	-1.4	-72.9	7.1	2.9	-68.7	-30	-38.7
(Fc+IF*3)	Hor	31.8	-75.2	-1.8	-73.4	7.1	2.9	-69.2	-30	-39.2
4884	Vert	53.7	-53.3	-5.4	-47.9	7.0	5.7	-46.6	-30	-16.6
(Fc * 2)	Hor	53.8	-53.2	-5.2	-48.0	7.0	5.7	-46.7	-30	-16.7
7326	Vert	35.5	-71.5	-11.5	-60.0	7.3	6.8	-59.5	-30	-29.5
(Fc * 3)	Hor	39.7	-67.3	-11.7	-55.6	7.3	6.8	-55.1	-30	-25.1
9768	Vert	37.8	-69.2	-16.4	-52.8	6.0	8.7	-55.5	-30	-25.5
(Fc * 4)	Hor	35.2	-71.8	-16.5	-55.3	6.0	8.7	-58.0	-30	-28.0
12210	Vert	30.0	-77.0	-21.7	-55.3	5.3	9.7	-59.7	-30	-29.7
(Fc * 5)	Hor	30.2	-76.8	-21.6	-55.2	5.3	9.7	-59.6	-30	-29.6

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/02/98

EMC Test Laboratory

Measurement System Calibration Date: 2/26/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Standard: ETS 300-328

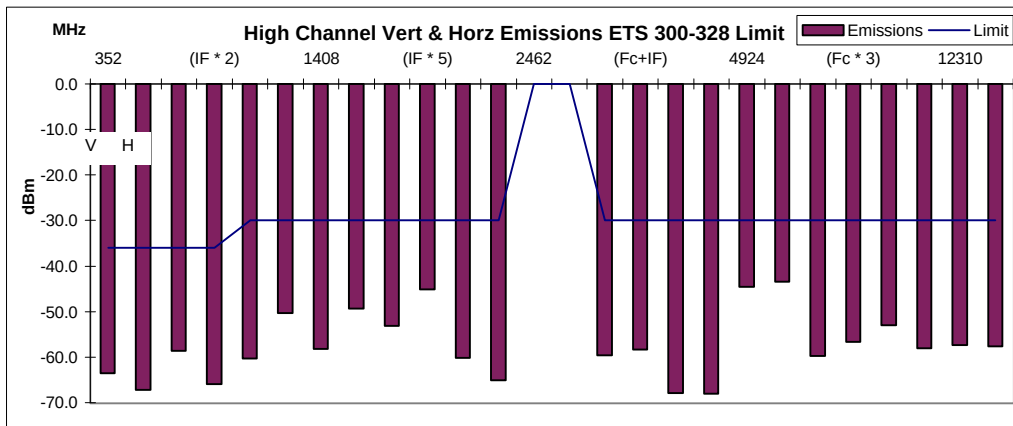
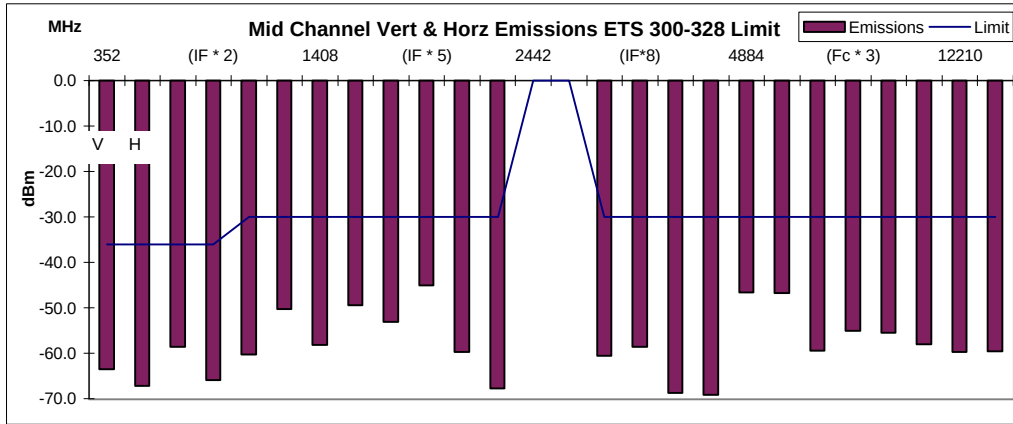
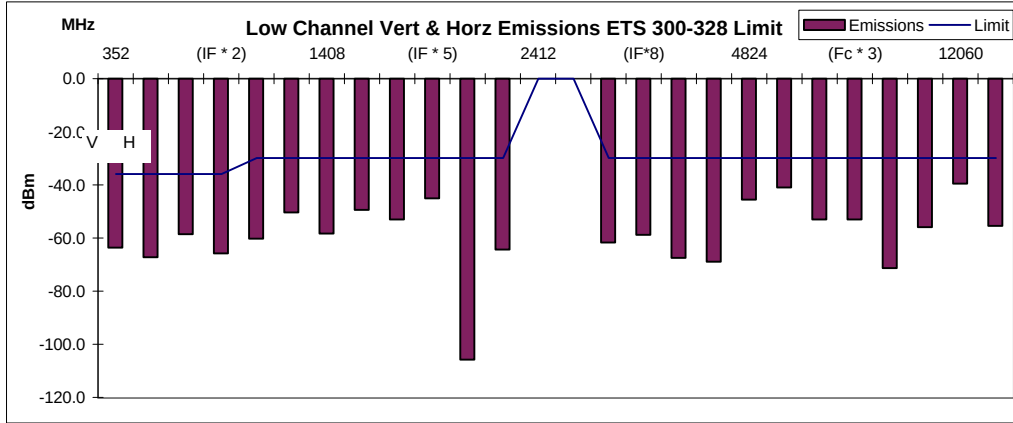
Data recorded here is based upon FCC data sheets within this file

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	Spur Meas. (dBm)	Generator 0 dBm Ref. Level	Calculated Generator Substitution (dBm)	Antenna Comp (dB)	Cable Comp (dB)	Generator Reference at Antenna (dBm)	Spec Limit (dBm)	Margin (dB)
a	b	c	d	e	f	g	h	i	j	k
(formula)			(=c-107)		(=d-e)			(=f-g+h)		(=i-j)
High Channel 11	2462.0	MHz								
352	Vert	16.7	-90.3	-27.4	-62.9		0.6	-63.5	-36	-27.5
(1F)	Hor	16.4	-90.6	-24.0	-66.6		0.6	-67.2	-36	-31.2
704	Vert	13.6	-93.4	-35.8	-57.6		1.0	-58.6	-36	-22.6
(1F * 2)	Hor	10.7	-96.3	-31.4	-64.9		1.0	-65.9	-36	-29.9
1056	Vert	17.7	-89.3	-26.3	-63.0	4.1	1.4	-60.3	-30	-30.3
(1F * 3)	Hor	27.9	-79.1	-26.1	-53.0	4.1	1.4	-50.3	-30	-20.3
1408	Vert	18.0	-89.0	-26.2	-62.8	6.3	1.7	-58.2	-30	-28.2
(1F * 4)	Hor	26.1	-80.9	-26.9	-54.0	6.3	1.7	-49.4	-30	-19.4
1760	Vert	18.5	-88.5	-30.9	-57.6	6.5	2.0	-53.1	-30	-23.1
(1F * 5)	Hor	26.5	-80.5	-30.9	-49.6	6.5	2.0	-45.1	-30	-15.1
2110	Vert	45.7	-61.3	3.1	-64.4	6.2	2.0	-60.2	-30	-30.2
(Fc-1F)	Hor	41.0	-66.0	3.3	-69.3	6.2	2.0	-65.1	-30	-35.1
2462	Vert		-107.0	-31.7	-75.3	7.7	3.6			
(Fc)	Hor		-107.0	-31.6	-75.4	7.7	3.6			
2816	Vert	44.0	-63.0	0.4	-63.4	6.5	2.7	-59.6	-30	-29.6
(Fc+1F)	Hor	45.3	-61.7	0.4	-62.1	6.5	2.7	-58.3	-30	-28.3
3518	Vert	33.2	-73.8	-1.5	-72.3	7.3	2.9	-67.9	-30	-37.9
(Fc+1F*3)	Hor	32.6	-74.4	-1.9	-72.5	7.3	2.9	-68.1	-30	-38.1
4924	Vert	54.4	-52.6	-6.1	-46.5	7.1	5.2	-44.6	-30	-14.6
(Fc * 2)	Hor	55.3	-51.7	-6.3	-45.4	7.1	5.2	-43.5	-30	-13.5
7386	Vert	35.0	-72.0	-11.3	-60.7	7.7	6.7	-59.7	-30	-29.7
(Fc * 3)	Hor	37.6	-69.4	-11.8	-57.6	7.7	6.7	-56.6	-30	-26.6
9848	Vert	39.2	-67.8	-17.2	-50.6	6.2	8.6	-53.0	-30	-23.0
(Fc * 4)	Hor	34.2	-72.8	-17.1	-55.7	6.2	8.6	-58.1	-30	-28.1
12310	Vert	30.0	-77.0	-23.3	-53.7	5.6	9.3	-57.4	-30	-27.4
(Fc * 5)	Hor	30.0	-77.0	-23.1	-53.9	5.6	9.3	-57.6	-30	-27.6

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval
 Set Up: Radiall Integral Patch, radio tested as module VERTICAL
 Test Date (mm/dd/yy): 11/02/98
 Measurement System Calibration Date: 2/26/98
 Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz
 Data recorded here is based upon FCC data sheets within this file

Intermec Technologies Corporation
 Norand Mobile Systems Division
 EMC Test Laboratory
 Standard: ETS 300-328



RECEIVER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Radial Integral Patch, radio tested as module VERTICAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/02/98

EMC Test Laboratory

Measurement System Calibration Date: 2/26/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

Standard: ETS 300-328

Data recorded here is based upon FCC data sheets within this file

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	Spur Meas. (dBm)	Generator 0 dBm Ref. Level	Calculated Generator Substitution (dBm)	Antenna Comp (dB)	Cable Comp (dB)	Generator Reference at Antenna (dBm)	Spec Limit (dBm)	Margin (dB)
a	b	c	d	e	f	g	h	i	j	k
(formula)			(=c-107)		(=d-e)			(=f-g+h)		(=i-j)
Low Channel 01 2412 MHz										
2060	Vert	45.0	-62.0	2.8	-64.8	6.3	2.2	-60.7	-47	-13.7
(Lo)	Hor	43.7	-63.3	2.8	-66.1	6.3	2.2	-62.0	-47	-15.0
4120	Vert	38.6	-68.4	-4.0	-64.4	7.4	3.4	-60.4	-47	-13.4
(Lo * 2)	Hor	42.0	-65.0	-4.3	-60.7	7.4	3.4	-56.7	-47	-9.7
6180	Vert	32.2	-74.8	-8.0	-66.8	8.3	3.9	-62.4	-47	-15.4
(Lo * 3)	Hor	31.9	-75.1	-8.3	-66.8	8.3	3.9	-62.4	-47	-15.4
8240	Vert	34.9	-72.1	-13.2	-58.9	8.2	5.0	-55.7	-47	-8.7
(Lo * 4)	Hor	32.4	-74.6	-13.0	-61.6	8.2	5.0	-58.4	-47	-11.4
10300	Vert	30.9	-76.1	-17.4	-58.7	7.2	6.7	-58.2	-47	-11.2
(Lo * 5)	Hor	30.9	-76.1	-16.6	-59.5	7.2	6.7	-59.0	-47	-12.0
12360	Vert	30.6	-76.4	-22.2	-54.2	7.1	6.4	-53.5	-47	-6.5
(Lo * 6)	Hor	30.6	-76.4	-22.5	-53.9	7.1	6.4	-53.2	-47	-6.2
Middle Channel 7 2442 MHz										
2090	Vert	44.0	-63.0	3.0	-66.0	6.3	2.2	-61.9	-47	-14.9
(Lo)	Hor	44.5	-62.5	3.0	-65.5	6.3	2.2	-61.4	-47	-14.4
4180	Vert	41.8	-65.2	-3.8	-61.4	7.3	3.5	-57.6	-47	-10.6
(Lo * 2)	Hor	42.4	-64.6	-4.2	-60.4	7.3	3.5	-56.6	-47	-9.6
6270	Vert	31.0	-76.0	-8.1	-67.9	8.3	3.8	-63.4	-47	-16.4
(Lo * 3)	Hor	30.6	-76.4	-8.3	-68.1	8.3	3.8	-63.6	-47	-16.6
8360	Vert	34.6	-72.4	-13.4	-59.0	8.3	5.2	-55.9	-47	-8.9
(Lo * 4)	Hor	34.1	-72.9	-13.3	-59.6	8.3	5.2	-56.5	-47	-9.5
10450	Vert	30.9	-76.1	-18.8	-57.3	6.7	6.8	-57.4	-47	-10.4
(Lo * 5)	Hor	30.5	-76.5	-18.4	-58.1	6.7	6.8	-58.2	-47	-11.2
12540	Vert	31.6	-75.4	-23.4	-52.0	6.9	6.8	-51.9	-47	-4.9
(Lo * 6)	Hor	31.8	-75.2	-23.8	-51.4	6.9	6.8	-51.3	-47	-4.3
High Channel 11 2462 MHz										
2110	Vert	44.6	-62.4	3.1	-65.5	6.3	2.2	-61.4	-47	-14.4
(Lo)	Hor	43.2	-63.8	3.3	-67.1	6.3	2.2	-63.0	-47	-16.0
4220	Vert	42.8	-64.2	-3.5	-60.7	7.2	3.6	-57.1	-47	-10.1
(Lo * 2)	Hor	45.1	-61.9	-3.8	-58.1	7.2	3.6	-54.5	-47	-7.5
6330	Vert	31.1	-75.9	-8.9	-67.0	8.3	3.6	-62.3	-47	-15.3
(Lo * 3)	Hor	31.4	-75.6	-9.0	-66.6	8.3	3.6	-61.9	-47	-14.9
8440	Vert	36.8	-70.2	-13.0	-57.2	8.3	5.3	-54.2	-47	-7.2
(Lo * 4)	Hor	34.3	-72.7	-13.0	-59.7	8.3	5.3	-56.7	-47	-9.7
10550	Vert	29.7	-77.3	-20.1	-57.2	6.3	6.8	-57.7	-47	-10.7
(Lo * 5)	Hor	29.7	-77.3	-20.6	-56.7	6.3	6.8	-57.2	-47	-10.2
12660	Vert	31.4	-75.6	-24.1	-51.5	5.7	7.1	-52.9	-47	-5.9
(Lo * 6)	Hor	31.5	-75.5	-24.8	-50.7	5.7	7.1	-52.1	-47	-5.1

RECEIVER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Test Date (mm/dd/yy): 11/02/98

Measurement System Calibration Date: 2/26/98

Span 100 MHz, Res. B.W. 1 MHz, Video B.W. 3 kHz

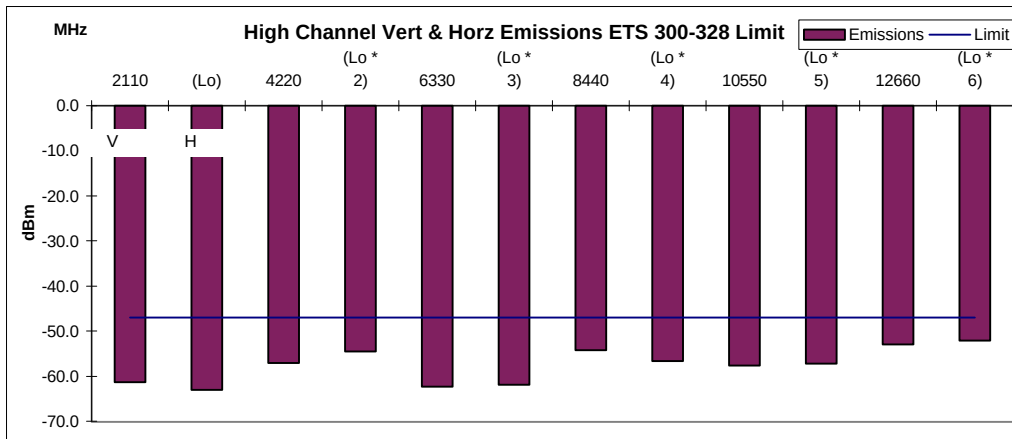
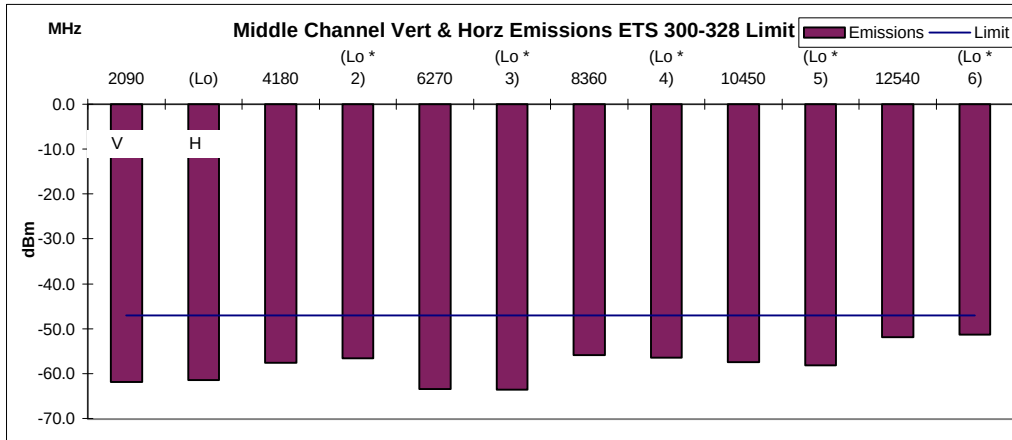
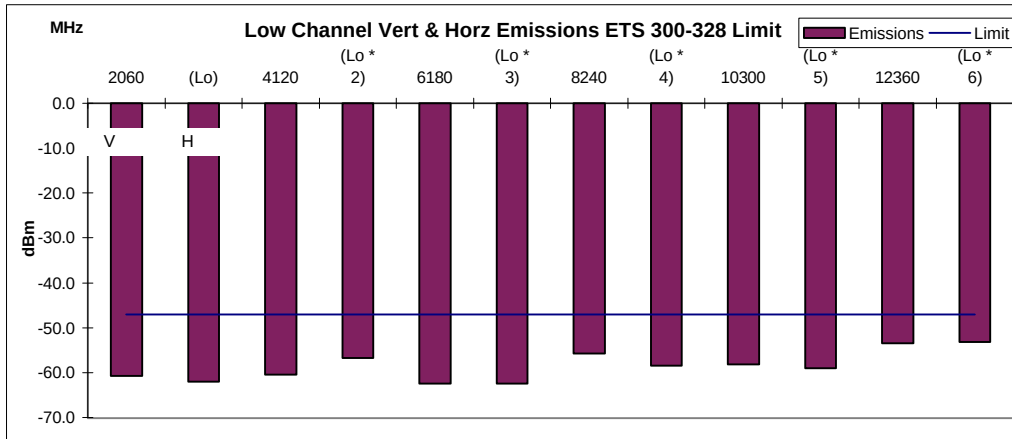
Data recorded here is based upon FCC data sheets within this file

Intermec Technologies Corporation

Norand Mobile Systems Division

EMC Test Laboratory

Standard: ETS 300-328



RECEIVER RADIATED SPURIOUS EMISSIONS

Quasi-Peak Emissions Data Compared to Emissions Limit

FCC ID: EHA2126

Product: Intermec DSSS Type II Radio, Approval

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Test Date (mm/dd/yy): 11/02/98

Measurement System Calibration Date: 3/2/98

Intermec Technologies Corporation

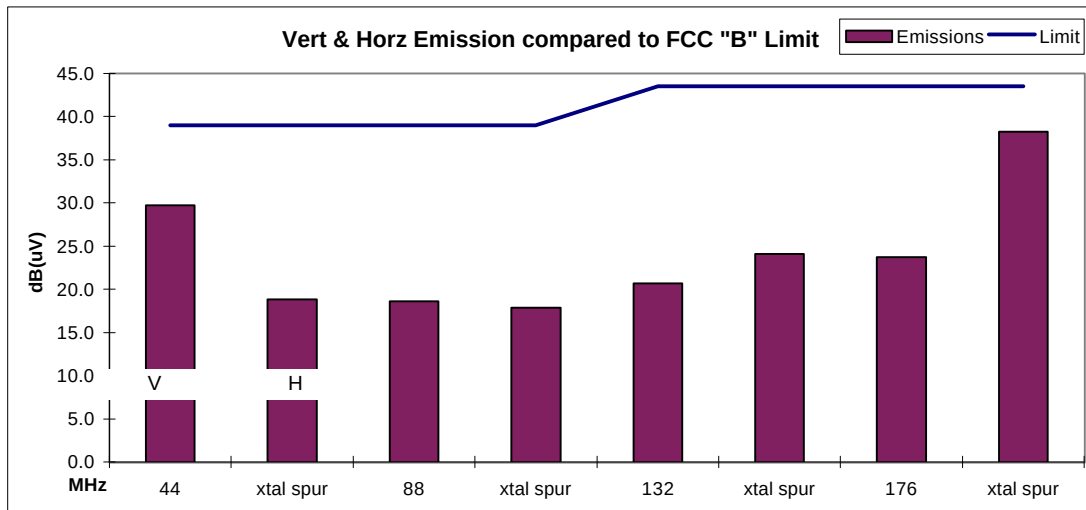
Norand Mobile Systems Division

EMC Test Laboratory

Standard: Canada RSS-210/GL-36

Quasi-Peak detector 120 kHz BW on ESVP Receiver

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	H.P.filter + Cable Loss (dB)	Antenna Correction Factor dB/M	Amplifier Gain (dB)	Calculated Result dB(uV)/M	Limit @ 3 Meters dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
44	Vert	18.7	0.1	10.9		29.7	39	-9.3
xtal spur	Hor	7.8	0.1	10.9		18.8	39	-20.2
88	Vert	8.2	0.6	9.8		18.6	39	-20.4
xtal spur	Hor	7.5	0.6	9.8		17.9	39	-21.1
132	Vert	7.9	0.8	12.0		20.7	43.5	-22.8
xtal spur	Hor	11.3	0.8	12.0		24.1	43.5	-19.4
176	Vert	9.5	1.0	13.3		23.8	43.5	-19.8
xtal spur	Hor	24.0	1.0	13.3		38.3	43.5	-5.3



RECEIVER RADIATED SPURIOUS EMISSIONS

Quasi-Peak Emissions Data Compared to Emissions Limit

Product: Intermec DSSS Type II Radio, Approval

Set Up: Radiall Integral Patch, radio tested as module VERTICAL

Test Date (mm/dd/yy): 11/02/98

Measurement System Calibration Date: 2/26/98

Quasi-Peak detector 120 kHz BW on ESVP Receiver

Intermec Technologies Corporation

Norand Mobile Systems Division

EMC Test Laboratory

Standard: ETS 300-328

Frequency (MHz)	Antenna Polarity	Spurious Measured dB(uV)	Spur Meas. (dBm)	Generator 0 dBm Ref. Level	Calculated Generator Substitution (dBm)	Antenna Comp (dB)	Cable Comp (dB)	Generator Reference at Antenna (dBm)	Spec Limit (dBm)	Margin (dB)
a	b	c	d	e	f	g	h	i	j	k
(formula)			(=c-107)		(=d-e)			(=f-g+h)		(=i-j)
44	Vert	18.7	-88.3	-22.1	-66.2		0.1	-66.3	-57	-9.3
xtal spur	Hor	7.8	-99.2	-22.3	-76.9		0.1	-77.0	-57	-20.0
88	Vert	8.2	-98.8	-22.0	-76.8		0.2	-77.0	-57	-20.0
xtal spur	Hor	7.5	-99.5	-19.3	-80.2		0.2	-80.4	-57	-23.4
132	Vert	7.9	-99.1	-26.1	-73.0		0.3	-73.3	-57	-16.3
xtal spur	Hor	11.3	-95.7	-20.2	-75.5		0.3	-75.8	-57	-18.8
176	Vert	9.5	-97.5	-26.6	-70.9		0.4	-71.3	-57	-14.3
xtal spur	Hor	24.0	-83.0	-21.6	-61.4		0.4	-61.8	-57	-4.8

