

MEASUREMENT/TECHNICAL REPORT



Intermec Technologies Corporation
2126
2.4 GHz Spread Spectrum Transmitter

REPORT NO: 981030-1

DATE: October 30 , 1998

APPENDIX I

SPREADSHEET FILES CONTAINED WITHIN:

sheets labled 981105.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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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	2.9	1.7	15.0		19.6	46	-26.4
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.6	2.8	20.9		27.3	46	-18.7
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	27.7	1.7	23.1		52.5	64	-11.5
(IF * 3)	Hor	27.8	1.7	23.1		52.6	64	-11.4
1408	Vert	34.8	1.9	24.3		61.0	64	-3.0
(IF * 4)	Hor	29.6	1.9	24.3		55.8	64	-8.2
1760	Vert	29.8	4.3	25.8		59.9	64	-4.1
(IF * 5)	Hor	26.2	4.3	25.8		56.3	64	-7.7
2060	Vert	48.2	4.2	27.1	33.6	45.9	64	-18.1
(Fc-IF)	Hor	51.8	4.2	27.1	33.6	49.5	64	-14.5
2412	Vert		4.0	28.0				
(Fc)	Hor		4.0	28.0				
2816	Vert	53.0	4.2	29.3	33.8	52.7	64	-11.3
(IF*8)	Hor	47.3	4.2	29.3	33.8	47.0	64	-17.0
3468	Vert	33.9	3.8	30.6	33.8	34.5	64	-29.5
(Fc+IF*3)	Hor	51.3	3.8	30.6	33.8	51.9	64	-12.1
4824	Vert	52.1	4.8	32.8	32.9	56.8	64	-7.2
(Fc * 2)	Hor	53.0	4.8	32.8	32.9	57.7	64	-6.3
7236	Vert	38.2	6.3	36.8	33.3	48.0	64	-16.0
(Fc * 3)	Hor	41.6	6.3	36.8	33.3	51.4	64	-12.6
9648	Vert	39.9	7.1	37.4	33.5	50.9	64	-13.1
(Fc * 4)	Hor	32.1	7.1	37.4	33.5	43.1	64	-20.9
12060	Vert	30.2	7.9	39.1	32.4	44.8	64	-19.2
(Fc * 5)	Hor	30.3	7.9	39.1	32.4	44.9	64	-19.1
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	39.0	1.9	44.2	31.1	54.0	64	-10.0
(Fc * 8)	Hor	38.8	1.9	44.2	31.1	53.8	64	-10.2
21708	Vert	37.7	1.4	44.3	30.5	52.9	64	-11.1
(Fc * 9)	Hor	37.8	1.4	44.3	30.5	53.0	64	-11.0
24120	Vert	38.4	1.1	45.1	30.8	53.8	64	-10.2
(Fc * 10)	Hor	38.6	1.1	45.1	30.8	54.0	64	-10.0

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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)
Middle Channel 7	2442.000	MHz						
352	Vert	3.0	1.7	15.0		19.7	46	-26.3
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.5	2.8	20.9		27.2	46	-18.8
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	27.4	1.7	23.1		52.2	64	-11.8
(IF * 3)	Hor	25.3	1.7	23.1		50.1	64	-13.9
1408	Vert	34.5	1.9	24.3		60.7	64	-3.3
(IF * 4)	Hor	29.3	1.9	24.3		55.5	64	-8.5
1760	Vert	29.1	4.3	25.8		59.2	64	-4.8
(IF * 5)	Hor	26.4	4.3	25.8		56.5	64	-7.5
2090	Vert	43.0	4.0	27.2	33.7	40.5	64	-23.5
(Fc-IF)	Hor	49.5	4.0	27.2	33.7	47.0	64	-17.0
2442	Vert		3.9	28.1				
(Fc)	Hor		3.9	28.1				
2816	Vert	53.0	4.3	29.5	32.9	53.9	64	-10.1
(IF*8)	Hor	50.1	4.3	29.5	32.9	51.0	64	-13.0
3498	Vert	42.2	3.7	30.7	32.9	43.7	64	-20.3
(Fc+IF*3)	Hor	53.3	3.7	30.7	32.9	54.8	64	-9.2
4884	Vert	63.5	4.7	32.9	32.9	68.2	64	4.2
(Fc * 2)	Hor	60.2	4.7	32.9	32.9	64.9	64	0.9
7326	Vert	41.8	6.0	37.2	33.3	51.7	64	-12.3
(Fc * 3)	Hor	48.5	6.0	37.2	33.3	58.4	64	-5.6
9768	Vert	34.1	6.7	37.6	33.4	45.0	64	-19.0
(Fc * 4)	Hor	34.5	6.7	37.6	33.4	45.4	64	-18.6
12210	Vert	30.1	7.8	39.2	32.4	44.7	64	-19.3
(Fc * 5)	Hor	30.7	7.8	39.2	32.4	45.3	64	-18.7
14652	Vert	32.3	9.0	40.5	31.4	50.4	64	-13.6
(Fc * 6)	Hor	31.9	9.0	40.5	31.4	50.0	64	-14.0
17094	Vert	31.4	11.4	41.5	31.1	53.2	64	-10.8
(Fc * 7)	Hor	31.5	11.4	41.5	31.1	53.3	64	-10.7
19536	Vert	39.1	1.4	44.0	31.3	53.2	64	-10.8
(Fc * 8)	Hor	38.9	1.4	44.0	31.3	53.0	64	-11.0
21978	Vert	37.8	2.0	44.7	30.4	54.1	64	-9.9
(Fc * 9)	Hor	37.9	2.0	44.7	30.4	54.2	64	-9.8
24420	Vert	38.4	2.3	45.6	31.3	55.0	64	-9.0
(Fc * 10)	Hor	38.6	2.3	45.6	31.3	55.2	64	-8.8

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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)
High Channel 11	2462.000	MHz						
352	Vert	3.1	1.7	15.0		19.8	46	-26.2
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.6	2.8	20.9		27.3	46	-18.7
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	27.8	1.7	23.1		52.6	64	-11.4
(IF * 3)	Hor	25.2	1.7	23.1		50.0	64	-14.0
1408	Vert	34.2	1.9	24.3		60.4	64	-3.6
(IF * 4)	Hor	29.3	1.9	24.3		55.5	64	-8.5
1760	Vert	29.3	4.3	25.8		59.4	64	-4.6
(IF * 5)	Hor	25.9	4.3	25.8		56.0	64	-8.0
2110	Vert	45.3	4.0	27.3	33.8	42.8	64	-21.2
(Fc-IF)	Hor	43.3	4.0	27.3	33.8	40.8	64	-23.2
2462	Vert		3.8	28.2				
(Fc)	Hor		3.8	28.2				
2816	Vert	52.1	4.4	29.6	32.7	53.4	64	-10.6
(Fc+IF)	Hor	45.5	4.4	29.6	32.7	46.8	64	-17.2
3518	Vert	38.6	3.6	30.8	32.7	40.3	64	-23.7
(Fc+IF*3)	Hor	52.5	3.6	30.8	32.7	54.2	64	-9.8
4924	Vert	61.5	4.4	32.9	32.7	66.1	64	2.1
(Fc * 2)	Hor	58.5	4.4	32.9	32.7	63.1	64	-0.9
7386	Vert	38.5	5.9	37.4	33.3	48.5	64	-15.5
(Fc * 3)	Hor	44.0	5.9	37.4	33.3	54.0	64	-10.0
9848	Vert	34.5	6.0	37.8	33.3	45.0	64	-19.0
(Fc * 4)	Hor	37.3	6.0	37.8	33.3	47.8	64	-16.2
12310	Vert	29.9	7.2	39.3	32.2	44.2	64	-19.8
(Fc * 5)	Hor	30.3	7.2	39.3	32.2	44.6	64	-19.4
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	39.2	1.8	44.0	31.4	53.6	64	-10.4
(Fc * 8)	Hor	39.0	1.8	44.0	31.4	53.4	64	-10.6
22158	Vert	37.9	1.2	45.0	30.4	53.7	64	-10.3
(Fc * 9)	Hor	38.0	1.2	45.0	30.4	53.8	64	-10.2
24620	Vert	38.4	1.7	45.9	31.5	54.5	64	-9.5
(Fc * 10)	Hor	38.5	1.7	45.9	31.5	54.6	64	-9.4

AVERAGE TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Product: Intermec DSSS Type II Radio, Approval

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

Measurement System Calibration Date: 3/2/98

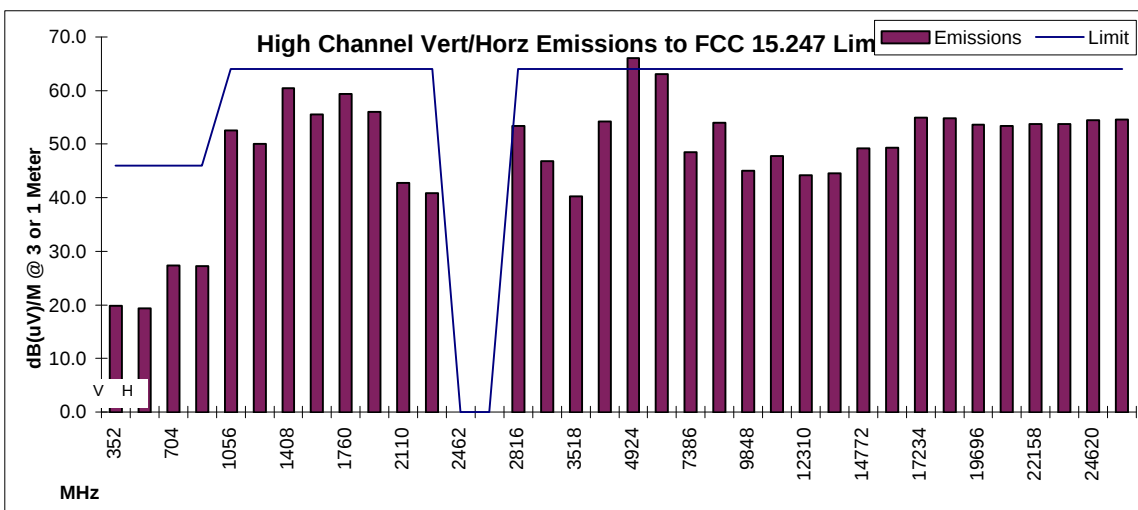
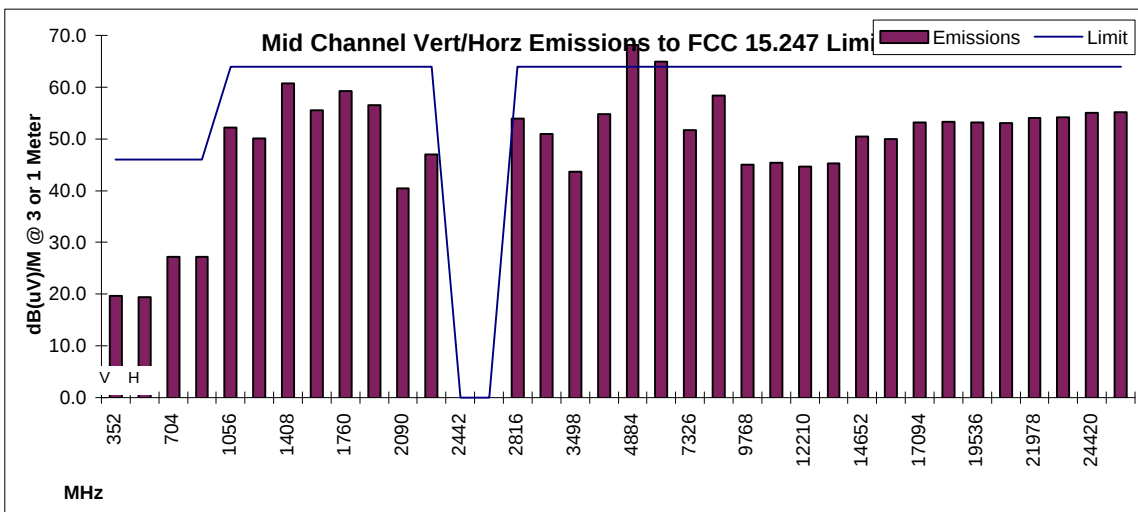
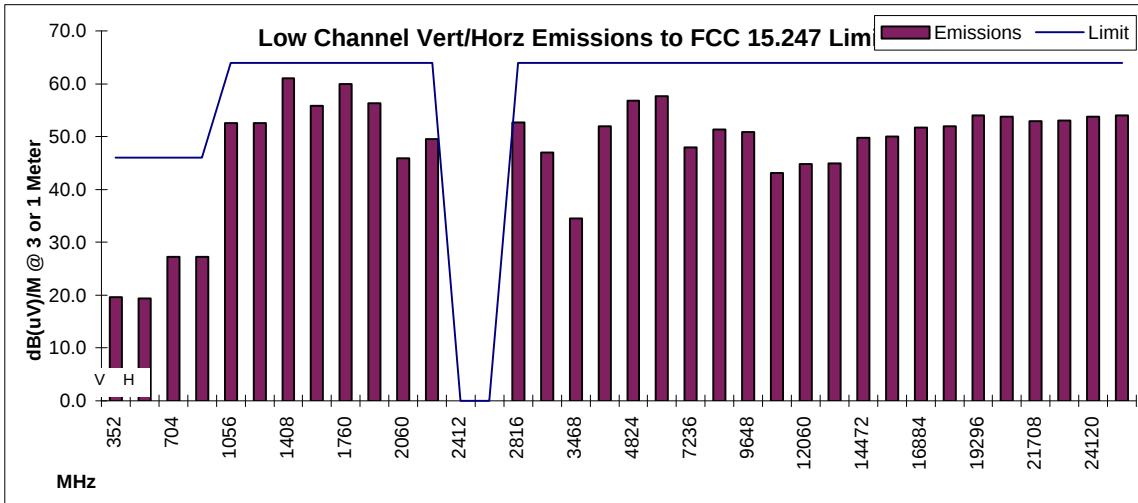
Intermec Technologies Corporation

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: Larsen 14 dBi Panel , radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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	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	2.9	1.7	15.0		19.6	46	-26.4
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.6	2.8	20.9		27.3	46	-18.7
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	36.5	1.7	23.1		61.3	84	-22.7
(IF * 3)	Hor	36.8	1.7	23.1		61.6	84	-22.4
1408	Vert	38.7	1.9	24.3		64.9	84	-19.1
(IF * 4)	Hor	36.3	1.9	24.3		62.5	84	-21.5
1760	Vert	38.4	4.3	25.8		68.5	84	-15.5
(IF * 5)	Hor	37.3	4.3	25.8		67.4	84	-16.6
2060	Vert	50.1	4.2	27.1	33.7	47.7	84	-36.3
(Fc-IF)	Hor	53.2	4.2	27.1	33.7	50.8	84	-33.2
2412	Vert		4.0	28.0				
(Fc)	Hor		4.0	28.0				
2816	Vert	53.8	4.2	29.3	32.9	54.4	84	-29.6
(IF*8)	Hor	49.9	4.2	29.3	32.9	50.5	84	-33.5
3468	Vert	43.0	3.8	30.6	32.9	44.5	84	-39.5
(Fc+IF*3)	Hor	53.7	3.8	30.6	32.9	55.2	84	-28.8
4824	Vert	55.3	4.8	32.8	32.9	60.0	84	-24.0
(Fc * 2)	Hor	56.5	4.8	32.8	32.9	61.2	84	-22.8
7236	Vert	44.4	6.3	36.8	33.3	54.2	84	-29.8
(Fc * 3)	Hor	47.5	6.3	36.8	33.3	57.3	84	-26.7
9648	Vert	43.2	7.1	37.4	33.5	54.2	84	-29.8
(Fc * 4)	Hor	43.1	7.1	37.4	33.5	54.1	84	-29.9
12060	Vert	41.3	7.9	39.1	32.4	55.9	84	-28.1
(Fc * 5)	Hor	41.4	7.9	39.1	32.4	56.0	84	-28.0
14472	Vert	42.3	8.8	40.8	31.3	60.6	84	-23.4
(Fc * 6)	Hor	42.5	8.8	40.8	31.3	60.8	84	-23.2
16884	Vert	41.8	11.1	40.3	31.1	62.1	84	-21.9
(Fc * 7)	Hor	42.3	11.1	40.3	31.1	62.6	84	-21.4
19296	Vert	50.5	1.9	44.2	31.1	65.5	84	-18.5
(Fc * 8)	Hor	50.7	1.9	44.2	31.1	65.7	84	-18.3
21708	Vert	49.1	1.4	44.3	30.5	64.3	84	-19.7
(Fc * 9)	Hor	48.9	1.4	44.3	30.5	64.1	84	-19.9
24120	Vert	49.8	1.1	45.1	30.8	65.2	84	-18.8
(Fc * 10)	Hor	49.3	1.1	45.1	30.8	64.7	84	-19.3

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Larsen 14 dBi Panel , radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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	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	3.0	1.7	15.0		19.7	46	-26.3
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.5	2.8	20.9		27.2	46	-18.8
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	36.5	1.7	23.1		61.3	84	-22.7
(IF * 3)	Hor	34.9	1.7	23.1		59.7	84	-24.3
1408	Vert	38.8	1.9	24.3		65.0	84	-19.0
(IF * 4)	Hor	37.1	1.9	24.3		63.3	84	-20.7
1760	Vert	38.2	4.3	25.8		68.3	84	-15.7
(IF * 5)	Hor	37.7	4.3	25.8		67.8	84	-16.2
2090	Vert	48.4	4.0	27.2	33.7	45.9	84	-38.1
(Fc-IF)	Hor	51.3	4.0	27.2	33.7	48.8	84	-35.2
2442	Vert		3.9	28.1				
(Fc)	Hor		3.9	28.1				
2816	Vert	54.0	4.3	29.5	32.9	54.9	84	-29.1
(IF*8)	Hor	52.1	4.3	29.5	32.9	53.0	84	-31.0
3498	Vert	46.7	3.7	30.7	32.9	48.2	84	-35.8
(Fc+IF*3)	Hor	55.6	3.7	30.7	32.9	57.1	84	-26.9
4884	Vert	66.8	4.7	32.9	32.9	71.5	84	-12.5
(Fc * 2)	Hor	63.2	4.7	32.9	32.9	67.9	84	-16.1
7326	Vert	47.7	6.0	37.2	33.3	57.6	84	-26.4
(Fc * 3)	Hor	52.8	6.0	37.2	33.3	62.7	84	-21.3
9768	Vert	42.3	6.7	37.6	33.4	53.2	84	-30.8
(Fc * 4)	Hor	43.9	6.7	37.6	33.4	54.8	84	-29.2
12210	Vert	41.7	7.8	39.2	32.4	56.3	84	-27.7
(Fc * 5)	Hor	41.6	7.8	39.2	32.4	56.2	84	-27.8
14652	Vert	43.2	9.0	40.5	31.4	61.3	84	-22.7
(Fc * 6)	Hor	41.9	9.0	40.5	31.4	60.0	84	-24.0
17094	Vert	41.8	11.4	41.5	31.1	63.6	84	-20.4
(Fc * 7)	Hor	42.8	11.4	41.5	31.1	64.6	84	-19.4
19536	Vert	50.6	1.4	44.0	31.3	64.7	84	-19.3
(Fc * 8)	Hor	50.8	1.4	44.0	31.3	64.9	84	-19.1
21978	Vert	49.2	2.0	44.7	30.4	65.5	84	-18.5
(Fc * 9)	Hor	49.0	2.0	44.7	30.4	65.3	84	-18.7
24420	Vert	49.9	2.3	45.6	31.3	66.5	84	-17.5
(Fc * 10)	Hor	49.4	2.3	45.6	31.3	66.0	84	-18.0

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Larsen 14 dBi Panel , radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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	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	3.1	1.7	15.0		19.8	46	-26.2
(IF)	Hor	2.7	1.7	15.0		19.4	46	-26.6
704	Vert	3.6	2.8	20.9		27.3	46	-18.7
(IF * 2)	Hor	3.5	2.8	20.9		27.2	46	-18.8
1056	Vert	36.0	1.7	23.1		60.8	84	-23.2
(IF * 3)	Hor	34.3	1.7	23.1		59.1	84	-24.9
1408	Vert	38.8	1.9	24.3		65.0	84	-19.0
(IF * 4)	Hor	36.5	1.9	24.3		62.7	84	-21.3
1760	Vert	38.2	4.3	25.8		68.3	84	-15.7
(IF * 5)	Hor	35.2	4.3	25.8		65.3	84	-18.7
2110	Vert	48.7	4.0	27.3	33.8	46.2	84	-37.8
(Fc-IF)	Hor	47.4	4.0	27.3	33.8	44.9	84	-39.1
2462	Vert		3.8	28.2				
(Fc)	Hor		3.8	28.2				
2816	Vert	54.3	4.4	29.6	32.7	55.6	84	-28.4
(Fc+IF)	Hor	49.3	4.4	29.6	32.7	50.6	84	-33.4
3518	Vert	45.2	3.6	30.8	32.7	46.9	84	-37.1
(Fc+IF*3)	Hor	55.4	3.6	30.8	32.7	57.1	84	-26.9
4924	Vert	64.3	4.4	32.9	32.7	68.9	84	-15.1
(Fc * 2)	Hor	61.8	4.4	32.9	32.7	66.4	84	-17.6
7386	Vert	45.5	5.9	37.4	33.3	55.5	84	-28.5
(Fc * 3)	Hor	48.9	5.9	37.4	33.3	58.9	84	-25.1
9848	Vert	43.4	6.0	37.8	33.3	53.9	84	-30.1
(Fc * 4)	Hor	44.2	6.0	37.8	33.3	54.7	84	-29.3
12310	Vert	40.1	7.2	39.3	32.2	54.4	84	-29.6
(Fc * 5)	Hor	41.8	7.2	39.3	32.2	56.1	84	-27.9
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	42.3	10.9	43.4	31.0	65.6	84	-18.4
(Fc * 7)	Hor	42.1	10.9	43.4	31.0	65.4	84	-18.6
19696	Vert	50.7	1.8	44.0	31.4	65.1	84	-18.9
(Fc * 8)	Hor	50.9	1.8	44.0	31.4	65.3	84	-18.7
22158	Vert	49.3	1.2	45.0	30.4	65.1	84	-18.9
(Fc * 9)	Hor	49.1	1.2	45.0	30.4	64.9	84	-19.1
24620	Vert	50.0	1.7	45.9	31.5	66.1	84	-17.9
(Fc * 10)	Hor	49.5	1.7	45.9	31.5	65.6	84	-18.4

PEAK TRANSMITTER RADIATED SPURIOUS EMISSIONS

FCC ID: EHA2126

Intermec Technologies Corporation

Product: Intermec DSSS Type II Radio, Approval

Norand Mobile Systems Division

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

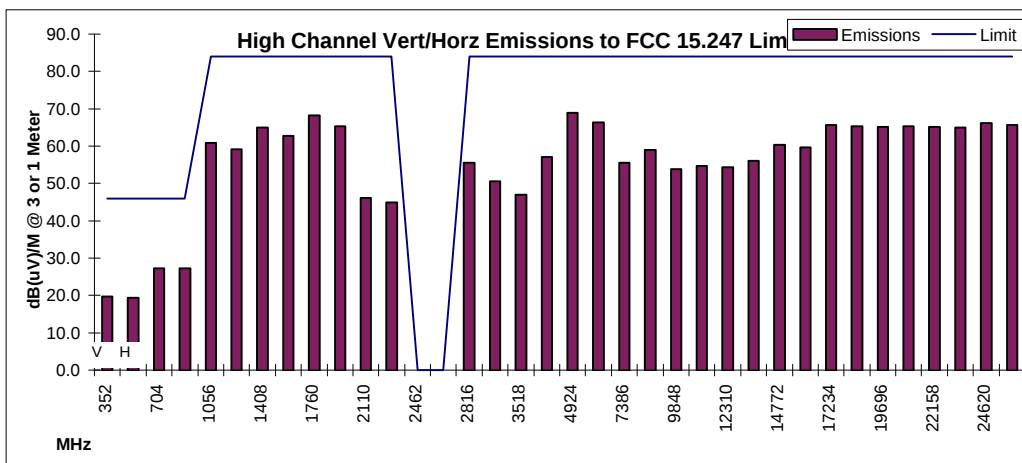
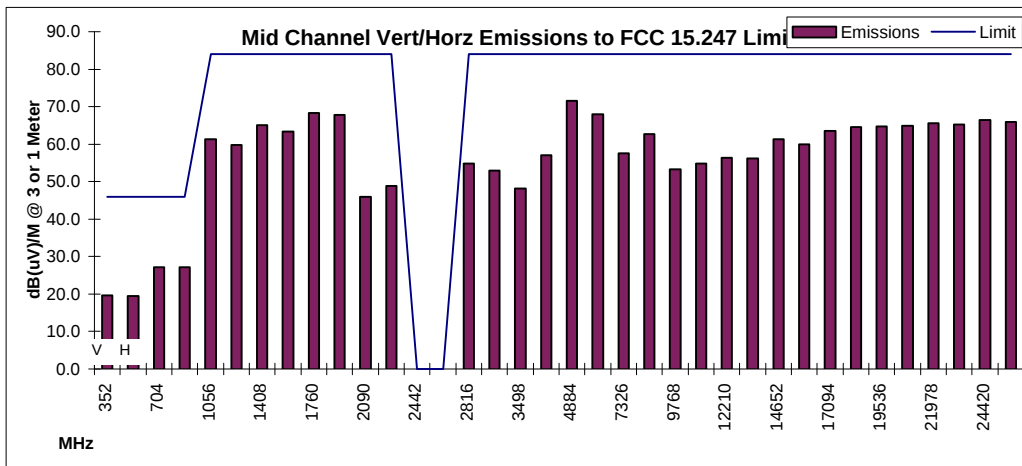
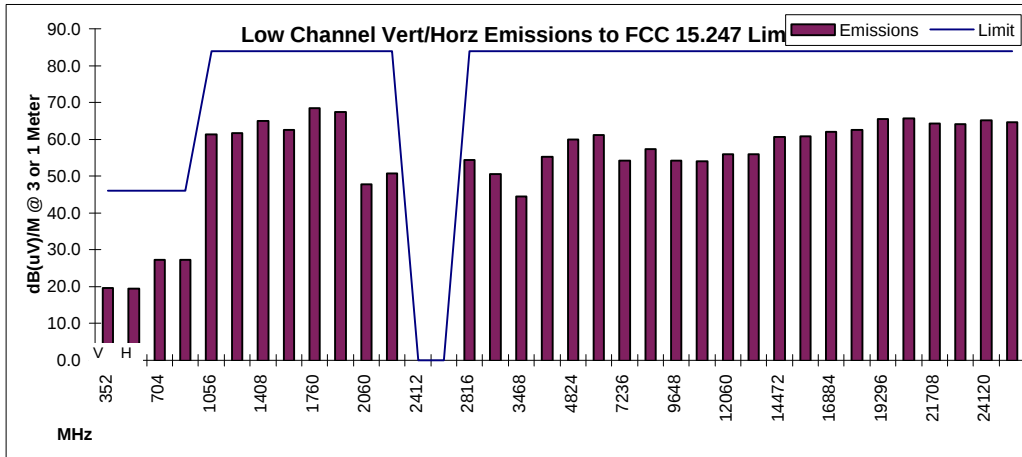
EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

EMC Test Laboratory

Test Date (mm/dd/yy): 11/05/98

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	46.4	3.1	27.1	33.6	43.0	64	-21.0
(Lo)	Hor	39.1	3.1	27.1	33.6	35.7	64	-28.3
4120	Vert	36.0	3.9	32.6	33.2	39.3	64	-24.7
(Lo * 2)	Hor	36.1	3.9	32.6	33.2	39.4	64	-24.6
6180	Vert	30.8	5.6	34.5	33.0	37.9	64	-26.1
(Lo * 3)	Hor	30.9	5.6	34.5	33.0	38.0	64	-26.0
8240	Vert	32.4	6.2	37.3	33.3	42.6	64	-21.4
(Lo * 4)	Hor	32.5	6.2	37.3	33.3	42.7	64	-21.3
10300	Vert	30.4	6.8	38.3	32.9	42.6	64	-21.4
(Lo * 5)	Hor	30.3	6.8	38.3	32.9	42.5	64	-21.5
12360	Vert	30.5	7.9	39.2	32.3	45.3	64	-18.7
(Lo * 6)	Hor	30.6	7.9	39.2	32.3	45.4	64	-18.6

Middle Channel 7 2442 MHz								
2090	Vert	45.5	3.0	27.2	33.6	42.1	64	-21.9
(Lo)	Hor	39.6	3.0	27.2	33.6	36.2	64	-27.8
4180	Vert	38.9	4.2	32.5	33.2	42.4	64	-21.6
(Lo * 2)	Hor	37.5	4.2	32.5	33.2	41.0	64	-23.0
6270	Vert	30.4	5.9	34.4	33.0	37.7	64	-26.3
(Lo * 3)	Hor	31.4	5.9	34.4	33.0	38.7	64	-25.3
8360	Vert	33.1	6.4	37.4	33.4	43.5	64	-20.5
(Lo * 4)	Hor	32.2	6.4	37.4	33.4	42.6	64	-21.4
10450	Vert	30.3	6.9	38.5	32.9	42.8	64	-21.2
(Lo * 5)	Hor	30.3	6.9	38.5	32.9	42.8	64	-21.2
12540	Vert	31.7	8.1	39.4	32.1	47.1	64	-16.9
(Lo * 6)	Hor	31.8	8.1	39.4	32.1	47.2	64	-16.8

High Channel 11 2462 MHz								
2110	Vert	52.7	3.0	27.3	33.6	49.4	64	-14.6
(Lo)	Hor	44.4	3.0	27.3	33.6	41.1	64	-22.9
4220	Vert	39.7	4.2	32.5	33.2	43.2	64	-20.8
(Lo * 2)	Hor	34.8	4.2	32.5	33.2	38.3	64	-25.7
6330	Vert	30.5	6.0	34.3	33.1	37.7	64	-26.3
(Lo * 3)	Hor	31.4	6.0	34.3	33.1	38.6	64	-25.4
8440	Vert	35.4	6.7	37.5	33.5	46.1	64	-17.9
(Lo * 4)	Hor	33.7	6.7	37.5	33.5	44.4	64	-19.6
10550	Vert	29.8	7.2	38.5	32.8	42.7	64	-21.3
(Lo * 5)	Hor	29.4	7.2	38.5	32.8	42.3	64	-21.7
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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

Measurement System Calibration Date: 3/2/98

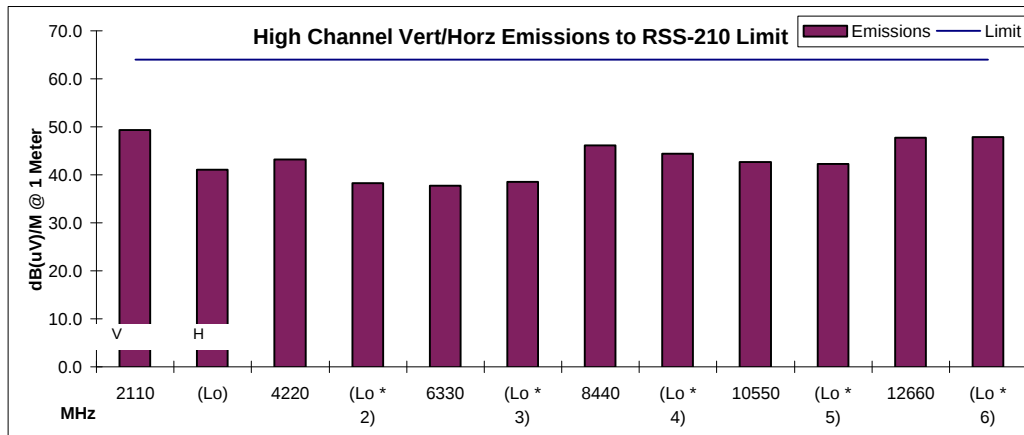
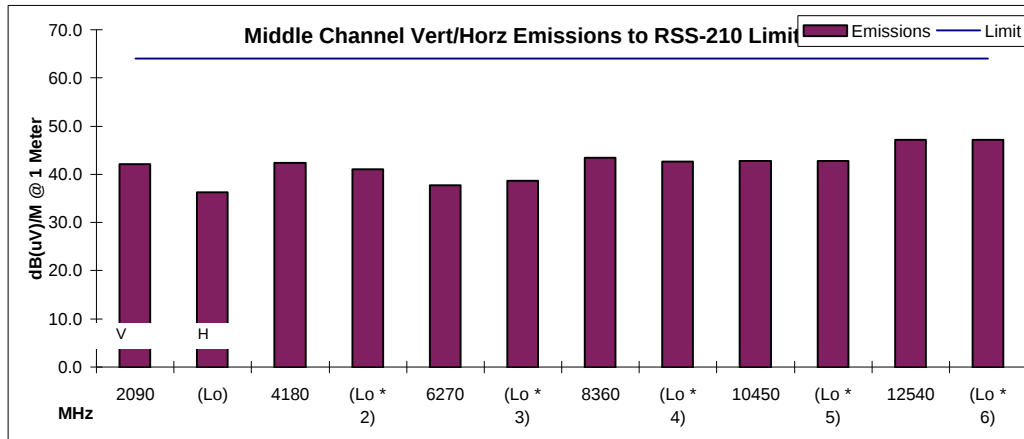
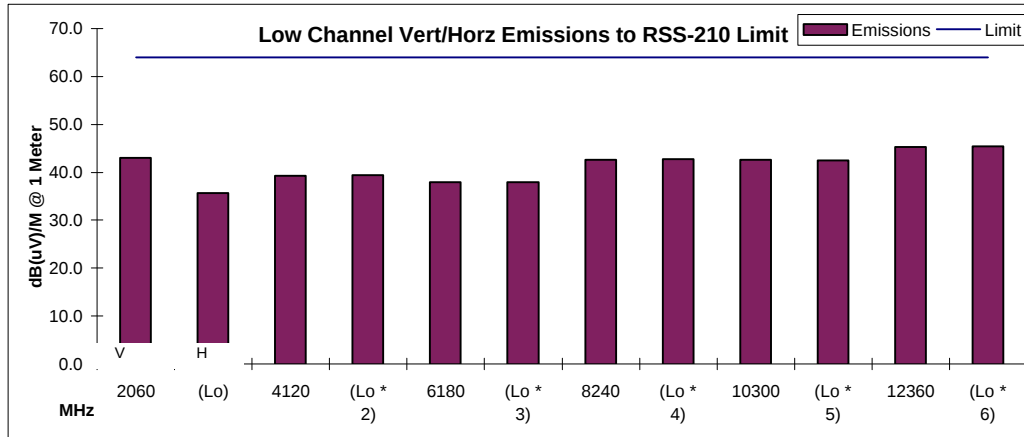
Intermec Technologies Corporation

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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/05/98

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								
352	Vert	2.9	-104.1	-27.4	-76.7		0.6	-77.3	-36	-41.3
(IF)	Hor	2.7	-104.3	-24.0	-80.3		0.6	-80.9	-36	-44.9
704	Vert	3.6	-103.4	-35.8	-67.6		1.0	-68.6	-36	-32.6
(IF * 2)	Hor	3.5	-103.5	-31.4	-72.1		1.0	-73.1	-36	-37.1
1056	Vert	27.7	-79.3	-26.3	-53.0	4.1	1.4	-50.3	-30	-20.3
(IF * 3)	Hor	27.8	-79.2	-26.1	-53.1	4.1	1.4	-50.4	-30	-20.4
1408	Vert	34.8	-72.2	-26.2	-46.0	6.3	1.7	-41.4	-30	-11.4
(IF * 4)	Hor	29.6	-77.4	-26.9	-50.5	6.3	1.7	-45.9	-30	-15.9
1760	Vert	29.8	-77.2	-30.9	-46.3	6.5	2.0	-41.8	-30	-11.8
(IF * 5)	Hor	26.2	-80.8	-30.9	-49.9	6.5	2.0	-45.4	-30	-15.4
2060	Vert	48.2	-107.0	2.8	-109.8	6.3	2.2	-105.7	-30	-75.7
(Fc-IF)	Hor	51.8	-55.2	2.8	-58.0	6.3	2.2	-53.9	-30	-23.9
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	53.0	-54.0	0.8	-54.8	6.5	2.6	-50.9	-30	-20.9
(IF*8)	Hor	47.3	-59.7	0.7	-60.4	6.5	2.6	-56.5	-30	-26.5
3468	Vert	33.9	-73.1	-1.2	-71.9	6.9	2.9	-67.9	-30	-37.9
(Fc+IF*3)	Hor	51.3	-55.7	-1.6	-54.1	6.9	2.9	-50.1	-30	-20.1
4824	Vert	52.1	-54.9	-4.9	-50.0	7.3	3.7	-46.4	-30	-16.4
(Fc * 2)	Hor	53.0	-54.0	-5.1	-48.9	7.3	3.7	-45.3	-30	-15.3
7236	Vert	38.2	-68.8	-12.1	-56.7	6.0	3.8	-54.5	-30	-24.5
(Fc * 3)	Hor	41.6	-65.4	-12.1	-53.3	6.0	3.8	-51.1	-30	-21.1
9648	Vert	39.9	-77.9	-15.5	-62.4	7.9	6.2	-60.7	-30	-30.7
(Fc * 4)	Hor	32.1	-74.9	-15.1	-59.8	7.9	6.2	-58.1	-30	-28.1
12060	Vert	30.2	-64.0	-21.4	-42.6	6.5	6.5	-42.6	-30	-12.6
(Fc * 5)	Hor	30.3	-76.7	-21.4	-55.3	6.5	6.5	-55.3	-30	-25.3

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/05/98

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	3.0	-104.0	-27.4	-76.6		0.6	-77.2	-36	-41.2
(IF)	Hor	2.7	-104.3	-24.0	-80.3		0.6	-80.9	-36	-44.9
704	Vert	3.5	-103.5	-35.8	-67.7		1.0	-68.7	-36	-32.7
(IF * 2)	Hor	3.5	-103.5	-31.4	-72.1		1.0	-73.1	-36	-37.1
1056	Vert	27.4	-79.6	-26.3	-53.3	4.1	1.4	-50.6	-30	-20.6
(IF * 3)	Hor	25.3	-81.7	-26.1	-55.6	4.1	1.4	-52.9	-30	-22.9
1408	Vert	34.5	-72.5	-26.2	-46.3	6.3	1.7	-41.7	-30	-11.7
(IF * 4)	Hor	29.3	-77.7	-26.9	-50.8	6.3	1.7	-46.2	-30	-16.2
1760	Vert	29.1	-77.9	-30.9	-47.0	6.5	2.0	-42.5	-30	-12.5
(IF * 5)	Hor	26.4	-80.6	-30.9	-49.7	6.5	2.0	-45.2	-30	-15.2
2090	Vert	43.0	-64.0	3.0	-67.0	6.3	2.2	-62.9	-30	-32.9
(Fc-IF)	Hor	49.5	-57.5	3.0	-60.5	6.3	2.2	-56.4	-30	-26.4
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	53.0	-54.0	0.7	-54.7	6.5	2.6	-50.8	-30	-20.8
(IF*8)	Hor	50.1	-56.9	0.7	-57.6	6.5	2.6	-53.7	-30	-23.7
3498	Vert	42.2	-64.8	-1.4	-63.4	7.1	2.9	-59.2	-30	-29.2
(Fc+IF*3)	Hor	53.3	-53.7	-1.8	-51.9	7.1	2.9	-47.7	-30	-17.7
4884	Vert	63.5	-43.5	-5.4	-38.1	7.0	5.7	-36.8	-30	-6.8
(Fc * 2)	Hor	60.2	-46.8	-5.2	-41.6	7.0	5.7	-40.3	-30	-10.3
7326	Vert	41.8	-65.2	-11.5	-53.7	7.3	6.8	-53.2	-30	-23.2
(Fc * 3)	Hor	48.5	-58.5	-11.7	-46.8	7.3	6.8	-46.3	-30	-16.3
9768	Vert	34.1	-72.9	-16.4	-56.5	6.0	8.7	-59.2	-30	-29.2
(Fc * 4)	Hor	34.5	-72.5	-16.5	-56.0	6.0	8.7	-58.7	-30	-28.7
12210	Vert	30.1	-76.9	-21.7	-55.2	5.3	9.7	-59.6	-30	-29.6
(Fc * 5)	Hor	30.7	-76.3	-21.6	-54.7	5.3	9.7	-59.1	-30	-29.1

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Intermec Technologies Corporation

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/05/98

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	3.1	-103.9	-27.4	-76.5		0.6	-77.1	-36	-41.1
(IF)	Hor	2.7	-104.3	-24.0	-80.3		0.6	-80.9	-36	-44.9
704	Vert	3.6	-103.4	-35.8	-67.6		1.0	-68.6	-36	-32.6
(IF * 2)	Hor	3.5	-103.5	-31.4	-72.1		1.0	-73.1	-36	-37.1
1056	Vert	27.8	-79.2	-26.3	-52.9	4.1	1.4	-50.2	-30	-20.2
(IF * 3)	Hor	25.2	-81.8	-26.1	-55.7	4.1	1.4	-53.0	-30	-23.0
1408	Vert	34.2	-72.8	-26.2	-46.6	6.3	1.7	-42.0	-30	-12.0
(IF * 4)	Hor	29.3	-77.7	-26.9	-50.8	6.3	1.7	-46.2	-30	-16.2
1760	Vert	29.3	-77.7	-30.9	-46.8	6.5	2.0	-42.3	-30	-12.3
(IF * 5)	Hor	25.9	-81.1	-30.9	-50.2	6.5	2.0	-45.7	-30	-15.7
2110	Vert	45.3	-61.7	3.1	-64.8	6.2	2.0	-60.6	-30	-30.6
(Fc-IF)	Hor	43.3	-63.7	3.3	-67.0	6.2	2.0	-62.8	-30	-32.8
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	52.1	-54.9	0.4	-55.3	6.5	2.7	-51.5	-30	-21.5
(Fc+IF)	Hor	45.5	-61.5	0.4	-61.9	6.5	2.7	-58.1	-30	-28.1
3518	Vert	38.6	-68.4	-1.5	-66.9	7.3	2.9	-62.5	-30	-32.5
(Fc+IF*3)	Hor	52.5	-54.5	-1.9	-52.6	7.3	2.9	-48.2	-30	-18.2
4924	Vert	61.5	-45.5	-6.1	-39.4	7.1	5.2	-37.5	-30	-7.5
(Fc * 2)	Hor	58.5	-48.5	-6.3	-42.2	7.1	5.2	-40.3	-30	-10.3
7386	Vert	38.5	-68.5	-11.3	-57.2	7.7	6.7	-56.2	-30	-26.2
(Fc * 3)	Hor	44.0	-63.0	-11.8	-51.2	7.7	6.7	-50.2	-30	-20.2
9848	Vert	34.5	-72.5	-17.2	-55.3	6.2	8.6	-57.7	-30	-27.7
(Fc * 4)	Hor	37.3	-69.7	-17.1	-52.6	6.2	8.6	-55.0	-30	-25.0
12310	Vert	29.9	-77.1	-23.3	-53.8	5.6	9.3	-57.5	-30	-27.5
(Fc * 5)	Hor	30.3	-76.7	-23.1	-53.6	5.6	9.3	-57.3	-30	-27.3

TRANSMITTER RADIATED SPURIOUS EMISSIONS

Product: Intermec DSSS Type II Radio, Approval

Set Up: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

Measurement System Calibration Date: 2/26/98

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

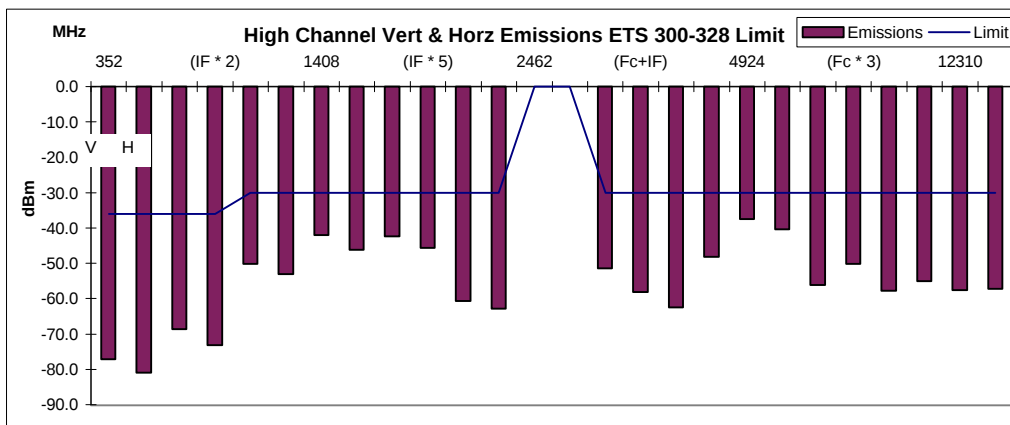
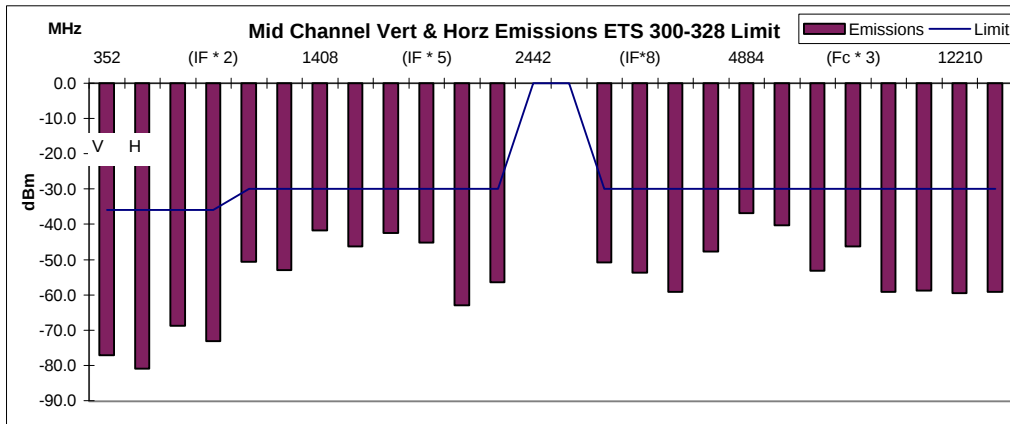
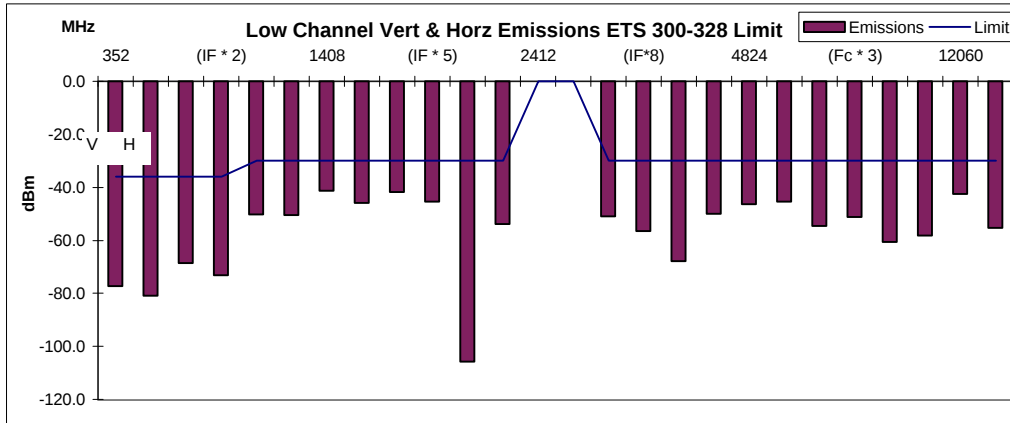
Data recorded here is based upon FCC data sheets within this file

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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Norand Mobile Systems Division

Test Date (mm/dd/yy): 11/05/98

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	46.4	-60.6	2.8	-63.4	6.3	2.2	-59.3	-47	-12.3
(Lo)	Hor	39.1	-67.9	2.8	-70.7	6.3	2.2	-66.6	-47	-19.6
4120	Vert	36.0	-71.0	-4.0	-67.0	7.4	3.4	-63.0	-47	-16.0
(Lo * 2)	Hor	36.1	-70.9	-4.3	-66.6	7.4	3.4	-62.6	-47	-15.6
6180	Vert	30.8	-76.2	-8.0	-68.2	8.3	3.9	-63.8	-47	-16.8
(Lo * 3)	Hor	30.9	-76.1	-8.3	-67.8	8.3	3.9	-63.4	-47	-16.4
8240	Vert	32.4	-74.6	-13.2	-61.4	8.2	5.0	-58.2	-47	-11.2
(Lo * 4)	Hor	32.5	-74.5	-13.0	-61.5	8.2	5.0	-58.3	-47	-11.3
10300	Vert	30.4	-76.6	-17.4	-59.2	7.2	6.7	-58.7	-47	-11.7
(Lo * 5)	Hor	30.3	-76.7	-16.6	-60.1	7.2	6.7	-59.6	-47	-12.6
12360	Vert	30.5	-76.5	-22.2	-54.3	7.1	6.4	-53.6	-47	-6.6
(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	45.5	-61.5	3.0	-64.5	6.3	2.2	-60.4	-47	-13.4
(Lo)	Hor	39.6	-67.4	3.0	-70.4	6.3	2.2	-66.3	-47	-19.3
4180	Vert	38.9	-68.1	-3.8	-64.3	7.3	3.5	-60.5	-47	-13.5
(Lo * 2)	Hor	37.5	-69.5	-4.2	-65.3	7.3	3.5	-61.5	-47	-14.5
6270	Vert	30.4	-76.6	-8.1	-68.5	8.3	3.8	-64.0	-47	-17.0
(Lo * 3)	Hor	31.4	-75.6	-8.3	-67.3	8.3	3.8	-62.8	-47	-15.8
8360	Vert	33.1	-73.9	-13.4	-60.5	8.3	5.2	-57.4	-47	-10.4
(Lo * 4)	Hor	32.2	-74.8	-13.3	-61.5	8.3	5.2	-58.4	-47	-11.4
10450	Vert	30.3	-76.7	-18.8	-57.9	6.7	6.8	-58.0	-47	-11.0
(Lo * 5)	Hor	30.3	-76.7	-18.4	-58.3	6.7	6.8	-58.4	-47	-11.4
12540	Vert	31.7	-75.3	-23.4	-51.9	6.9	6.8	-51.8	-47	-4.8
(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	52.7	-54.3	3.1	-57.4	6.3	2.2	-53.3	-47	-6.3
(Lo)	Hor	44.4	-62.6	3.3	-65.9	6.3	2.2	-61.8	-47	-14.8
4220	Vert	39.7	-67.3	-3.5	-63.8	7.2	3.6	-60.2	-47	-13.2
(Lo * 2)	Hor	34.8	-72.2	-3.8	-68.4	7.2	3.6	-64.8	-47	-17.8
6330	Vert	30.5	-76.5	-8.9	-67.6	8.3	3.6	-62.9	-47	-15.9
(Lo * 3)	Hor	31.4	-75.6	-9.0	-66.6	8.3	3.6	-61.9	-47	-14.9
8440	Vert	35.4	-71.6	-13.0	-58.6	8.3	5.3	-55.6	-47	-8.6
(Lo * 4)	Hor	33.7	-73.3	-13.0	-60.3	8.3	5.3	-57.3	-47	-10.3
10550	Vert	29.8	-77.2	-20.1	-57.1	6.3	6.8	-57.6	-47	-10.6
(Lo * 5)	Hor	29.4	-77.6	-20.6	-57.0	6.3	6.8	-57.5	-47	-10.5
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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

Measurement System Calibration Date: 2/26/98

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

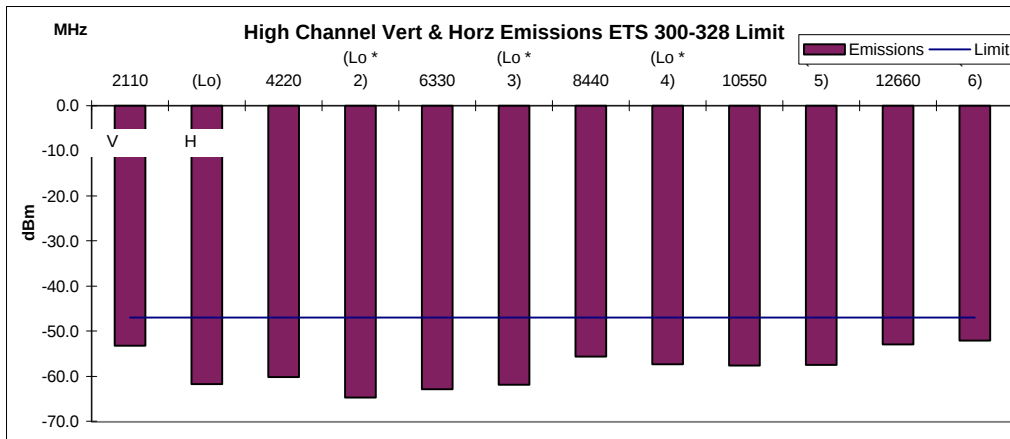
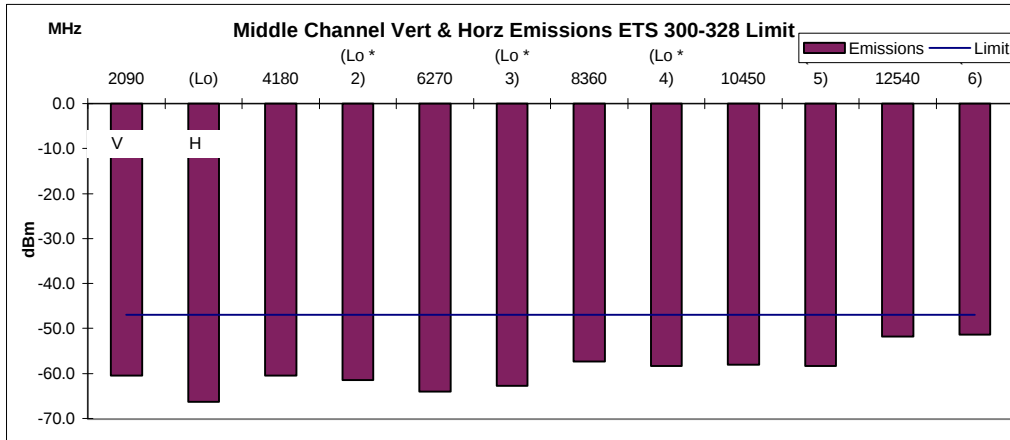
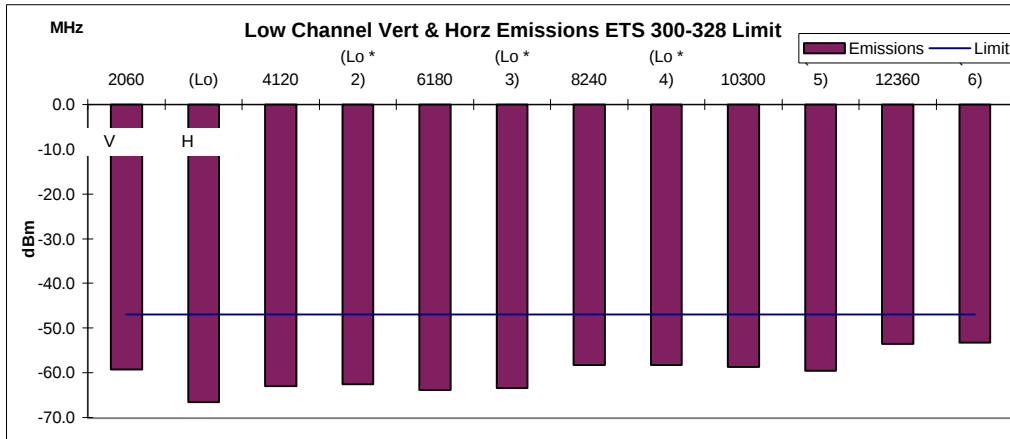
Data recorded here is based upon FCC data sheets within this file

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: Larsen 14 dBi Panel, radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

Measurement System Calibration Date: 3/2/98

Intermec Technologies Corporation

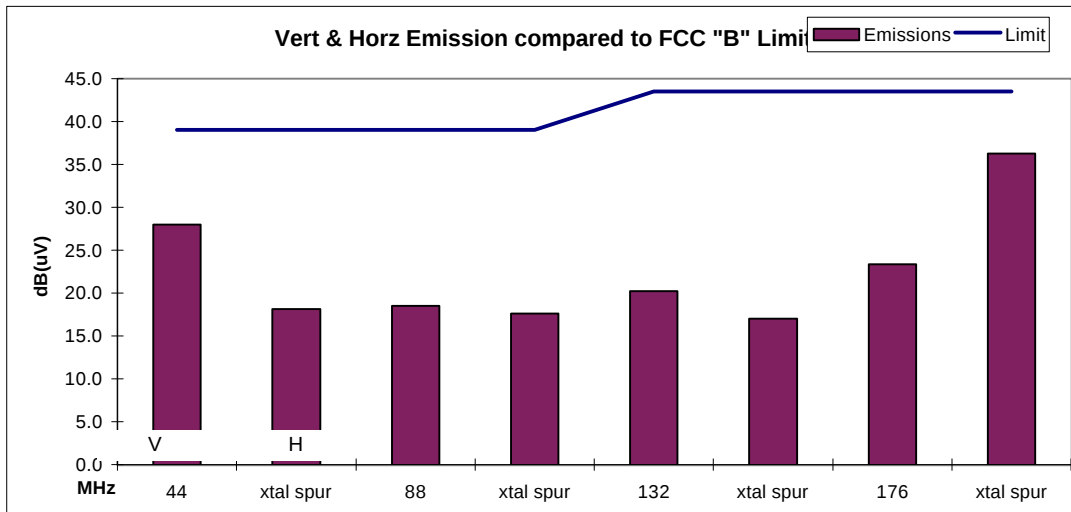
Norand Mobile Systems Division

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 Meter dB(uV)/Meter	Margin (dB)
a	b	c	d	e	f	g	h	i
(formula)						(=c+d+e-f)		(=g-h)
44	Vert	17.0	0.1	10.9		28.0	39	-11.0
xtal spur	Hor	7.1	0.1	10.9		18.1	39	-20.9
88	Vert	8.1	0.6	9.8		18.5	39	-20.5
xtal spur	Hor	7.2	0.6	9.8		17.6	39	-21.4
132	Vert	7.4	0.8	12.0		20.2	43.5	-23.3
xtal spur	Hor	4.2	0.8	12.0		17.0	43.5	-26.5
176	Vert	9.1	1.0	13.3		23.4	43.5	-20.2
xtal spur	Hor	22.0	1.0	13.3		36.3	43.5	-7.3



RECEIVER RADIATED SPURIOUS EMISSIONS

Quasi-Peak Emissions Data Compared to Emissions Limit

Product: Intermec DSSS Type II Radio, Approval

Set Up: Larsen 14 dBi Panel , radio tested as module HORIZONTAL

Test Date (mm/dd/yy): 11/05/98

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	17.0	-90.0	-22.1	-67.9		0.1	-68.0	-57	-11.0
xtal spur	Hor	7.1	-99.9	-22.3	-77.6		0.1	-77.7	-57	-20.7
88	Vert	8.1	-98.9	-22.0	-76.9		0.2	-77.1	-57	-20.1
xtal spur	Hor	7.2	-99.8	-19.3	-80.5		0.2	-80.7	-57	-23.7
132	Vert	7.4	-99.6	-26.1	-73.5		0.3	-73.8	-57	-16.8
xtal spur	Hor	4.2	-102.8	-20.2	-82.6		0.3	-82.9	-57	-25.9
176	Vert	9.1	-97.9	-26.6	-71.3		0.4	-71.7	-57	-14.7
xtal spur	Hor	22.0	-85.0	-21.6	-63.4		0.4	-63.8	-57	-6.8

