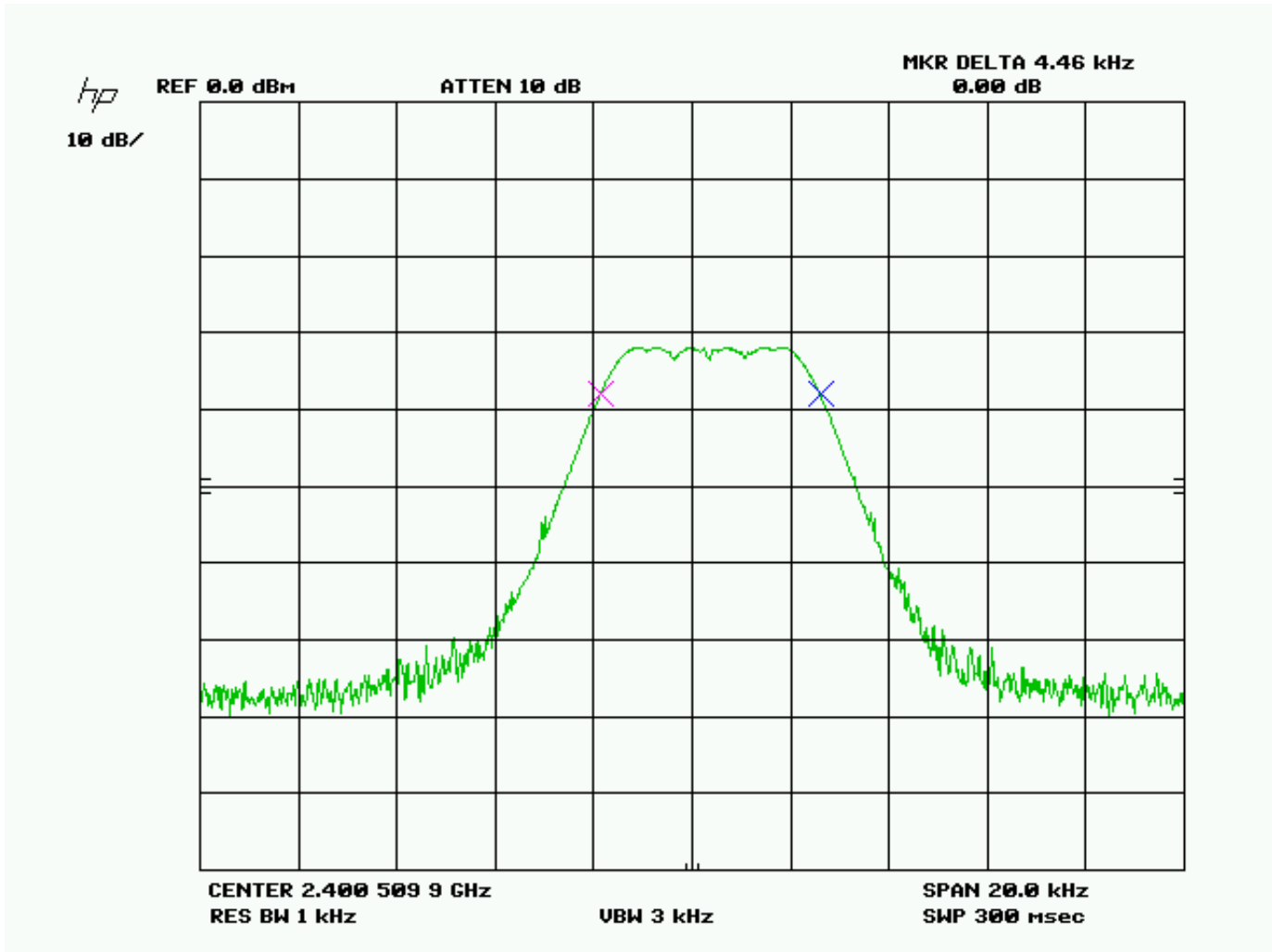


	Test Report Serial No.:	030713ZP2-T1243-E15	Report Issue Date:	7/3/2013	 Test Lab Certificate No. 2470.01
	Measurement Date(s):	Jan. 8-11, 2013	Report Revision No.:	Revision 1.0	
	FCC Rule Part(s):	47 CFR §15.107, 15.109	FCC Test Firm Reg. No.:	714830	
	IC Standard(s):	ICES-003 RSS-Gen	IC Test Site No.:	IC 3874A-1	

99% Occupied Bandwidth = 4.46kHz

Tractivity USB



Applicant:	Kineteks.	Model:	Tractivity USB	FCC ID:	ZP2-TUSB001	IC:	9751A-TUSB001	
DUT :	2.4GHz Tractivity USB							
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	Test Report Serial No.:	030713ZP2-T1243-E15		Report Issue Date:	7/3/2013	  Test Lab Certificate No. 2470.01
	Measurement Date(s):	Jan. 8-11, 2013		Report Revision No.:	Revision 1.0	
	FCC Rule Part(s):	47 CFR §15.107, 15.109		FCC Test Firm Reg. No.:	714830	
	IC Standard(s):	ICES-003	RSS-Gen	IC Test Site No.:	IC 3874A-1	




Test Lab Certificate No.
 2470.01

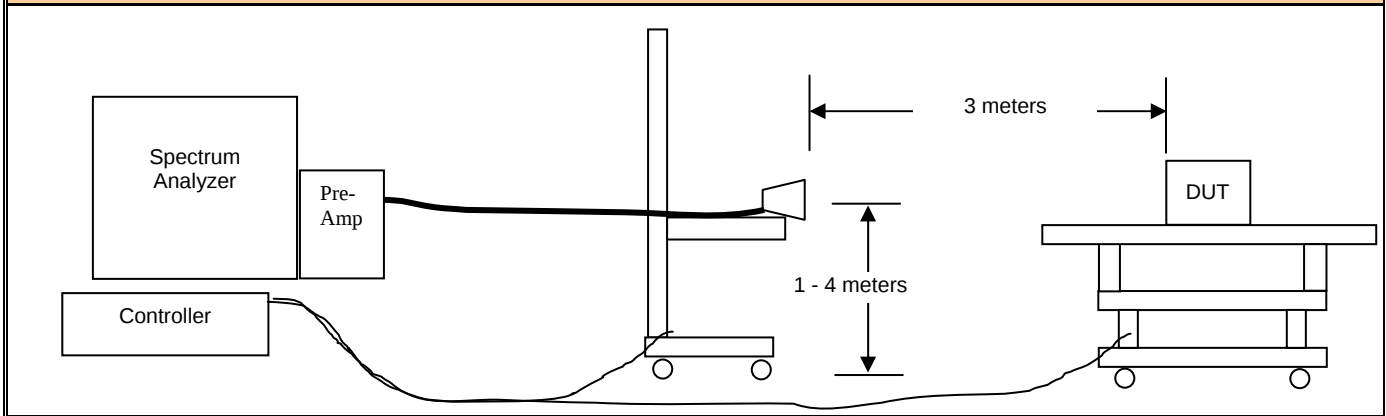
Appendix A Appendix Radiated Spurious Emissions

REFERENCES				
Normative Reference Standard		FCC CFR 47 §15.107: §15.109, RSS-210, IECS-003		
Procedure Reference		ANSI C63.4:2003		
ENVIRONMENTAL CONDITIONS				
Temperature		25 +/- 5 °C		
Humidity		40 +/- 10 %		
Barometric Pressure		101 +/- 3 kPa		
EQUIPMENT LIST				
ASSET NUMBER	MANUFACTURER	MODEL	DESCRIPTION	CAL DUE
00051	HP	8566B	Spectrum Analyzer RF Section	09 May14
00049	HP	85650A	Quasi-peak Adapter	10 May14
00047	HP	85685A	RF Preselector	09 May14
00072	EMCO	2075	Mini-mast	n/a
00073	EMCO	2080	Turn Table	n/a
00071	EMCO	2090	Multi-Device Controller	n/a
00030	HP	83017A	Microwave system amplifier	n/a
00050	Chase	CBL-6111A	Bilog Antenna	03 May14
00034	ETS	3115	Double Ridged Guide Horn	06 Dec 14
00085	EMCO	6502	Active Loop Antenna	03 June 14
00162	Waveline	899	Horn Antenna	n/a
MEASUREMENT EQUIPMENT SETUP				
MEASUREMENT EQUIPMENT CONNECTIONS	For the field strength measurements, the measurement equipment was connected as shown in E.4. Various antenna types may be required to cover the applicable frequency range tested. The ranges in which each antenna was used are shown below.			
	Frequency Range		RX Antenna	TX Antenna
	9kHz – 30Mhz		Active Loop	N/a
	30 MHz - 1GHz		Bilog	N/a
	1 GHz - 18 GHz		ETS 3115 Horn	N/a
	18-26.5 GHz		Waveline Horn	N/a
MEASUREMENT EQUIPMENT SETTINGS	For the spurious out-of-band emissions, the spectrum analyzer was set to the following settings:			
	Measurement	RBW	VBW	Detector
		kHz	kHz	
	< 30 MHz	10	100	Peak
	< 1 GHz	100	300	Peak
	> 1 GHz	1000	3000	Peak

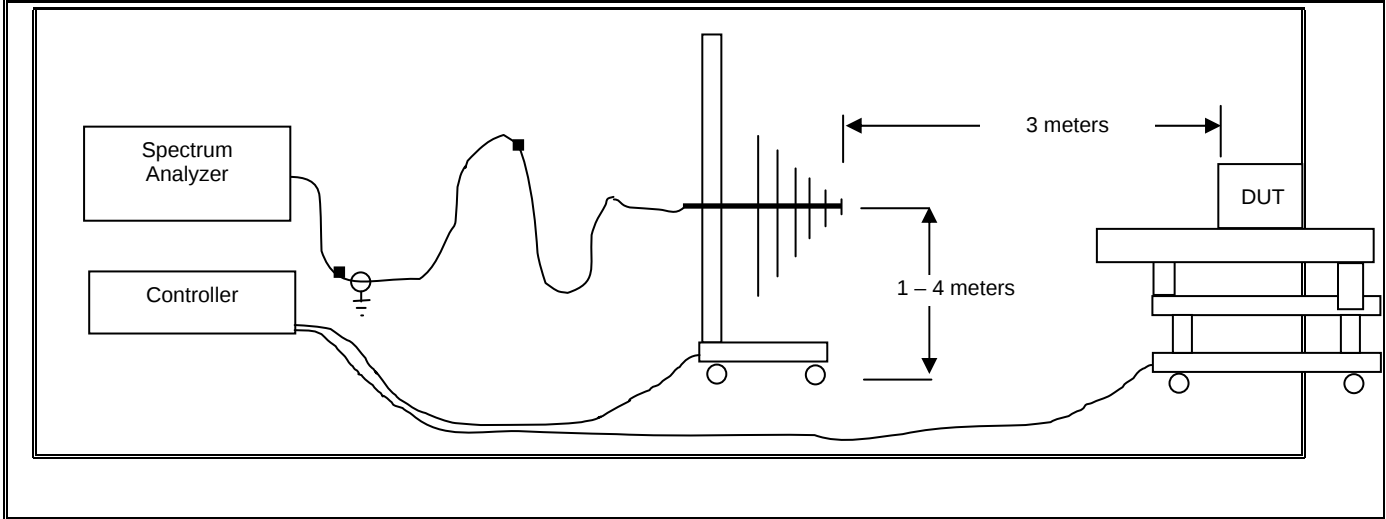
Applicant:	Kineteks.	Model:	Tractivity USB	FCC ID:	ZP2-TUSB001	IC:	9751A-TUSB001	
DUT :	2.4GHz Tractivity USB							
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								Page 7 of 17

	Test Report Serial No.:	030713ZP2-T1243-E15	Report Issue Date:	7/3/2013	 Test Lab Certificate No. 2470.01
	Measurement Date(s):	Jan. 8-11, 2013	Report Revision No.:	Revision 1.0	
	FCC Rule Part(s):	47 CFR §15.107, 15.109	FCC Test Firm Reg. No.:	714830	
	IC Standard(s):	ICES-003 RSS-Gen	IC Test Site No.:	IC 3874A-1	

SETUP DRAWING



SETUP DRAWING



Applicant:	Kineteks.	Model:	Tractivity USB	FCC ID:	ZP2-TUSB001	IC:	9751A-TUSB001	
DUT :	2.4GHz Tractivity USB							
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	Test Report Serial No.:	030713ZP2-T1243-E15	Report Issue Date:	7/3/2013	 Test Lab Certificate No. 2470.01
	Measurement Date(s):	Jan. 8-11, 2013	Report Revision No.:	Revision 1.0	
	FCC Rule Part(s):	47 CFR §15.107, 15.109	FCC Test Firm Reg. No.:	714830	
	IC Standard(s):	ICES-003 RSS-Gen	IC Test Site No.:	IC 3874A-1	

MEASUREMENT EQUIPMENT SETUP

MEASUREMENT EQUIPMENT CONNECTIONS

The conducted emissions were measured on each of the two AC powerline leads connected to the DUT's host power supply brick. A two line LISN was used to make this measurement.

MEASUREMENT EQUIPMENT SETTINGS

Each of the monitor ports from the 2-line LISN was connected in turn to the spectrum analyzer. The port not connected to the analyzer was terminated in a 50-ohm load. A prescan of the peak emission levels was made of the 150 kHz – 30 MHz range split into 4 equal frequency bands.

The following were the spectrum analyzer settings:

Start Frequency and Stop Frequency set by software for each of the four bands

RBW: 100 kHz

VBW: 300 kHz

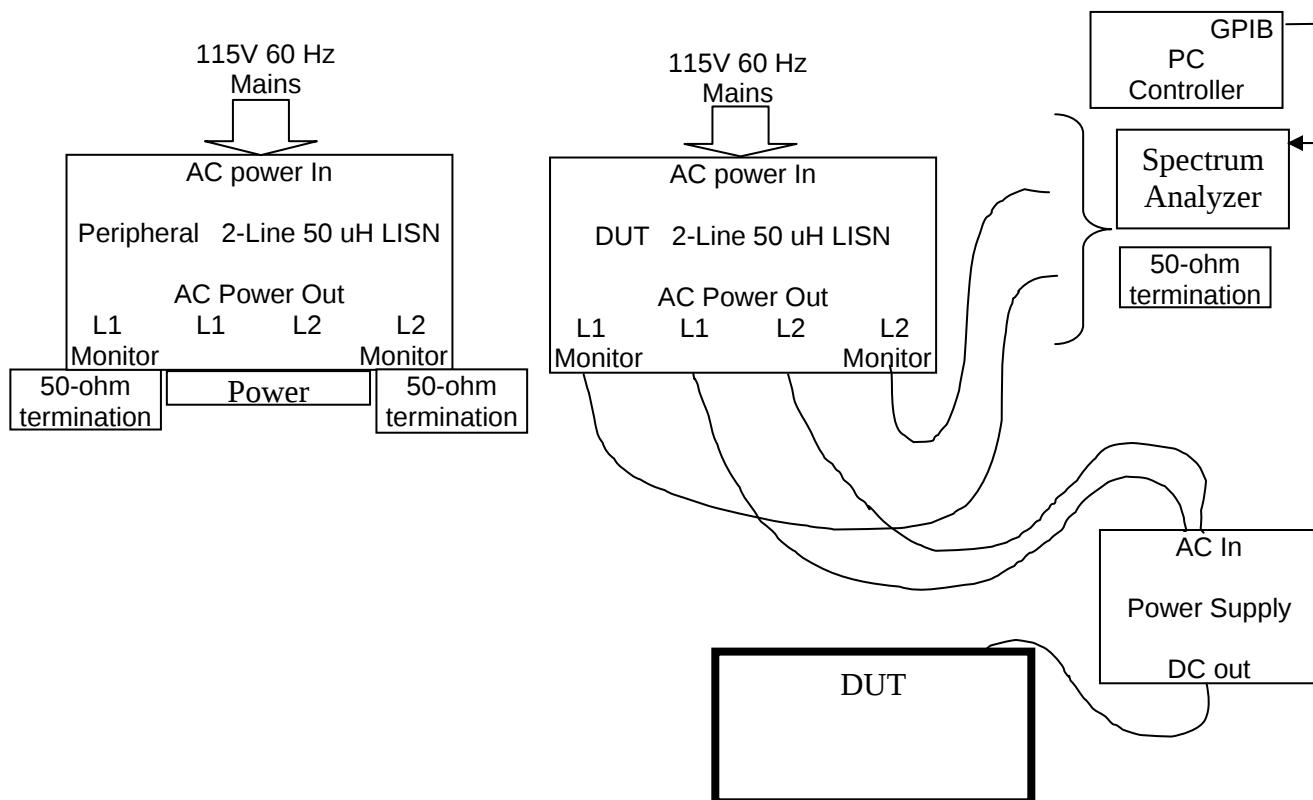
Sweep: 500 mS

The resulting data from each band was corrected and collected by software and presented in the graphical representations shown on page 19 for the two leads.

The frequency points with peak levels within 20 dB of the average limit were selected and optimized using software control each type of detector (peak, quasi-peak and average). This data was corrected by the software is presented in the tables shown in section on page 19.

All peak emissions are below the average limit.

SETUP DRAWING



Applicant:	Kineteks.	Model:	Tractivity USB	FCC ID:	ZP2-TUSB001	IC:	9751A-TUSB001	
DUT :	2.4GHz Tractivity USB							
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