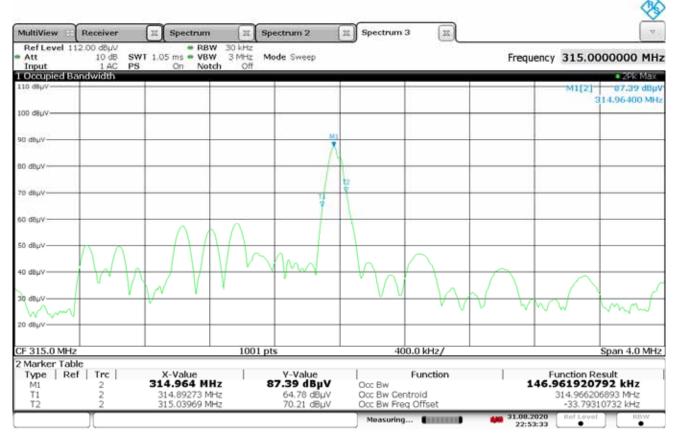


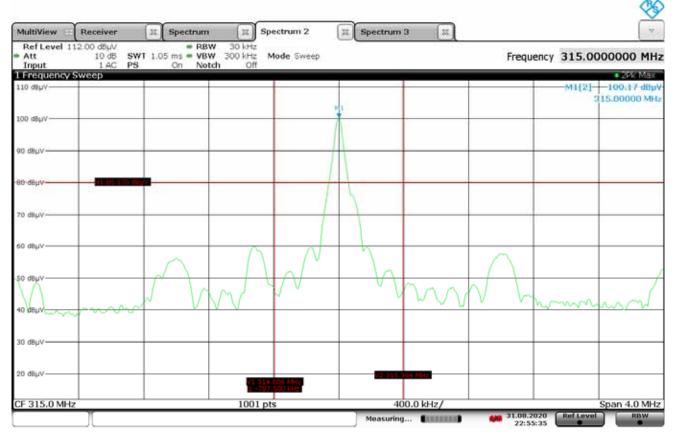
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 315MHz	
Protocol	Genie IC2 Protocol	
Notes	99% bandwidth	



22:53:34 31.08.2020



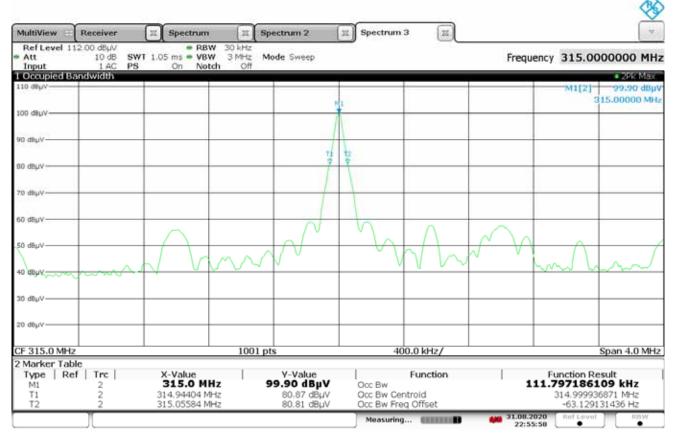
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 315MHz	
Protocol	Marantec Protocol	
Notes	20dB bandwidth	



22:55:35 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 315MHz	
Protocol	Marantec Protocol	
Notes	99% bandwidth	



22:55:59 31.08.2020



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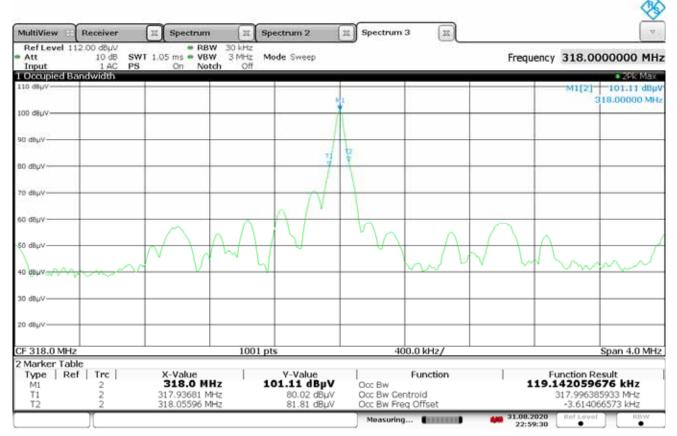
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 318MHz	
Protocol	Linear Protocol	
Notes	20dB bandwidth	

MultiView	Receiver	Spectrum	(II) Sp	ectrum 2	Spectrum	3 II)			y.
Ref Level 1: Att Input	12.00 dBµV 10 dB SW 1 AC PS	T 1.05 ms = VB On No	W 300 kHz N	lode Sweep			Frequ	ency 318.00	000000 MHz
1 Frequency				- 1- 1-	-				 2Pk Max 100.03 dBpV
100 dBµV				-	Ma				318.00000 MHz
90 d8µV									
-00-dBµV						-			
70 dBµV									· · · · ·
60 dBµV					+ -				
50 dBµV			$ \land \land \land$	\wedge	+ h	h	h/ M	mad	hand
40 (BUV	hanne a								
30 dBµV									
CF 318.0 MHz			1001 pt	603 MH2 000 KH2		0.0 kHz/			Span 4.0 MHz
CF 318.0 MH2			1001 pt	5		JU.U KHZ/	4 31.00.2 22:51	020 Ref Level	

22:59:02 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 318MHz	
Protocol	Linear Protocol	
Notes	99% bandwidth	



22:59:31 31.08.2020



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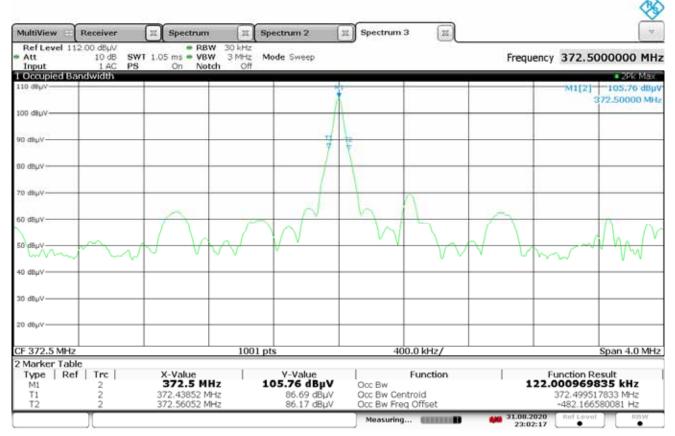
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 372.5MHz	
Protocol	Wayne Dalton Protocol	
Notes	20dB bandwidth	

MultiView	Receiver	Spectrum	Ξ	Spectrum 2	Spectrum 3		×
Ref Level 1 Att Input		RBW 1.05 ms VBW On Note	300 kHz	Mode Sweep		Frequency 3	72.5000000 MHz
1 Frequency							2Pk Max
110 dBµV	21 in 12				M1 T		M1[2] 105.80 dBpV 372.50000 MHz
100 dBµV					A		
90 dBµV							
80 dBµV							
70 dBµV					A		
60, d8µV		\square		\square	h		
				\mathcal{N}			
50 dBµV	m	V V	\mathcal{N}	ľ			mont
40 dBµV							
30 d8µV							
20 dBµV					12 172 956 Miles		
			V1 372 8 -931	600 kHz			
CF 372.5 MH:	2	. I.	1001	pts	400.0 kHz/	-i i	Span 4.0 MHz
)(Measuring	31.00.2020 23:01:47	Ref Level RBW

23:01:47 31.08.2020



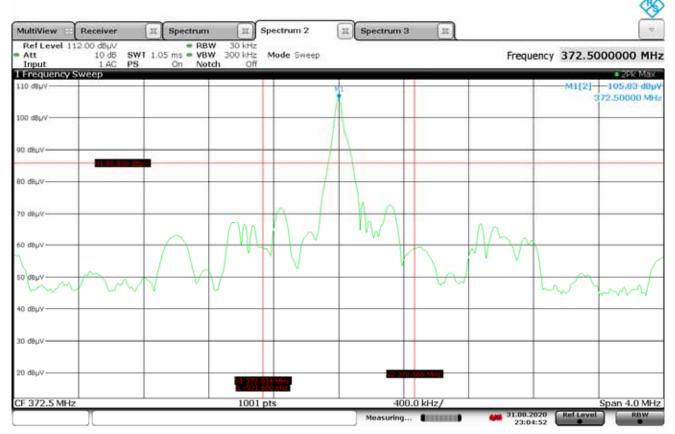
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 372.5MHz	
Protocol	Wayne Dalton Protocol	
Notes	99% bandwidth	



23:02:17 31.08.2020



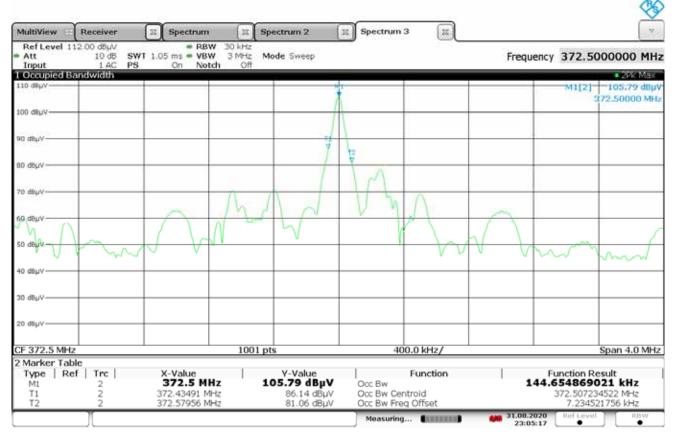
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 372.5MHz	
Protocol	Ryobi Protocol	
Notes	20dB bandwidth	



23:04:52 31.08.2020



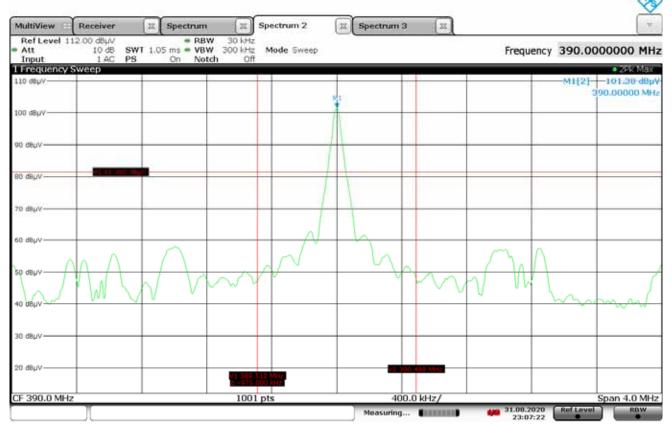
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 372.5MHz	
Protocol	Ryobi Protocol	
Notes	99% bandwidth	



23:05:18 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Green Protocol	
Notes	20dB bandwidth	



23:07:22 31.08.2020



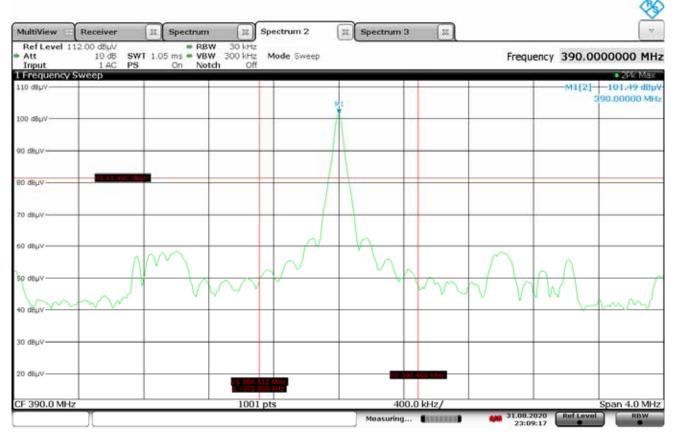
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Green Protocol	
Notes	99% bandwidth	

MultiView	Receiver	Spectrum	π s	pectrum 2	Spectrum	3 12			
Ref Level 1 Att Input	12.00 dBµV	= RBW 1.05 ms = VBW On Note	30 kHz 3 MHz M	Mode Sweep			Frequ	ency 390.00	000000 MHz
1 Occupied B			u 9/1						2PK Max
110 dBµV					1				101.36 dBµV
100 dBµV				1					
90 dBµV				1					
B0 dBµV		-		7	tz				
70 dBµV					M				
60 dBµV				n	V		\sim		
50 dBµV		$\sqrt{\sqrt{2}}$	ΛA	γ^{\prime}		Vm	\checkmark	h	m
30 dBuV									
50 gB ^h A									
CF 390.0 MHz			1001	ots	40	0.0 kHz/			Span 4.0 MHz
2 Marker Tab Type Re M1 T1 T2		X-Value 390.0 MH 389.946 MH 390.06183 MH	z	Y-Value LO1.36 dBµV 82.00 dBµV 80.06 dBµV	Occ Bw Occ Bw Cer Occ Bw Fre		1	Function Re 15.8370671 390.00391 3.91373	55 kHz
)(Measuring		# 31.00.2 23:07		RBW

23:07:51 31.08.2020



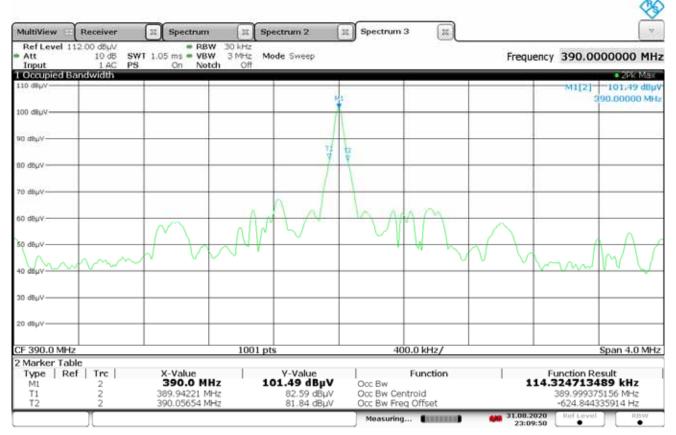
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Orange/Red Protocol	
Notes	20dB bandwidth	



23:09:18 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Orange/Red Protocol	
Notes	99% bandwidth	



23:09:51 31.08.2020



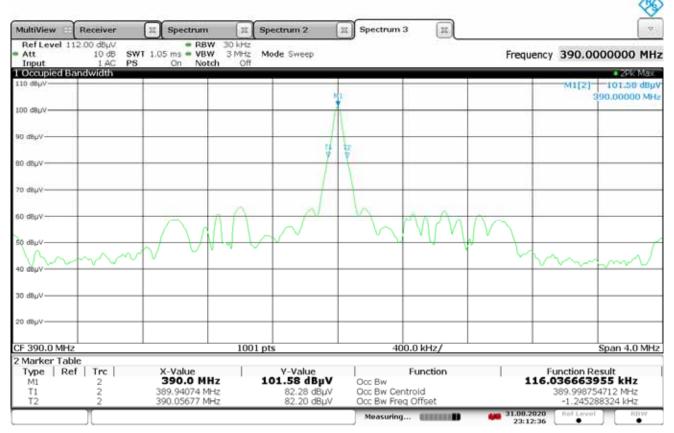
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Yellow Protocol	
Notes	20dB bandwidth	

MultiView	Receiver	II Spectrum II	Spectrum 2	Spectrum 3	Ξ		
Ref Level 11 Att Input		= RBW 30 kH 1.05 ms = VBW 300 kH On Notch Of	Mode Sweep			Frequer	ncy 390.0000000 MHz
1 Frequency S							 2PK Max
110 dBµV				Man			M1[2] 101.62 dBµV 390.00000 MHz
100 dBµV				1.	-		
90 d8µV					-		
80 dBµV	at an available						
70 dBµV				N			
60 dBµV				+ $+$ $+$		~	
Sp dBuV		$\lambda \wedge \lambda_{n}$	$\Lambda \Lambda$	5			
40 dBuy	WW		1		v v v	$^{\vee}$ $^{\vee}$	mound
30 dBµV							
20 dBµV			512 MHz		.400 MH2		
CF 390.0 MHz		100	1 pts	400	0 kHz/		Span 4.0 MHz
	T	100	- p	Measuring		40 31.00.202 23:12:0	20 (Ref Level) RBW

23:12:08 31.08.2020



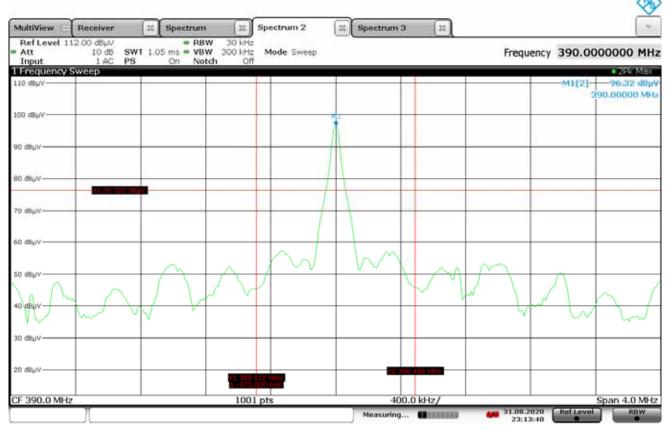
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Yellow Protocol	
Notes	99% bandwidth	



23:12:36 31.08.2020



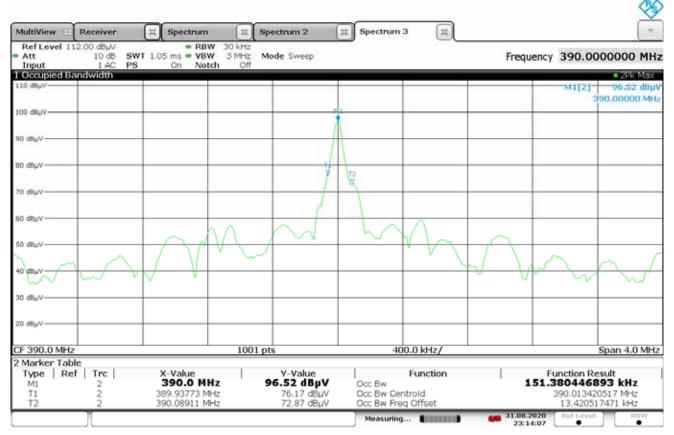
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Legacy Protocol	
Notes	20dB bandwidth	



23:13:40 31.08.2020



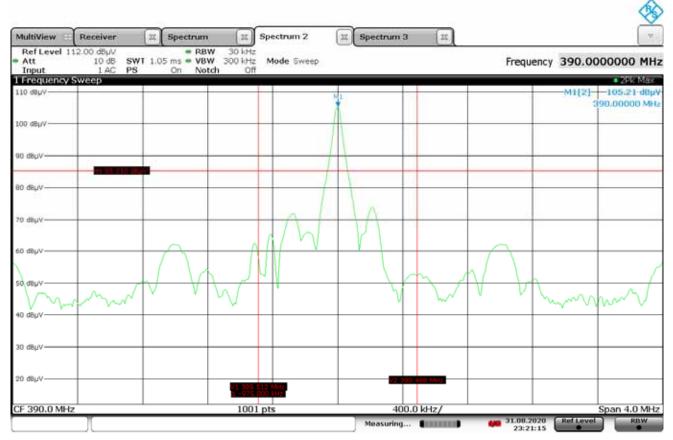
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Chamberlain Legacy Protocol	
Notes	99% bandwidth	



23:14:08 31.08.2020



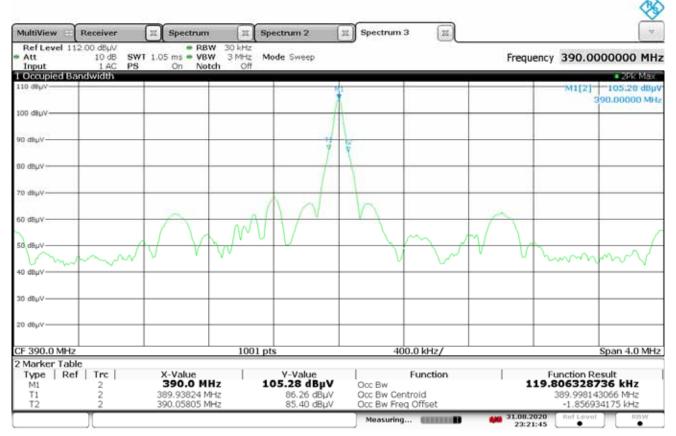
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie IC1 Protocol	
Notes	20dB bandwidth	



23:21:16 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie IC1 Protocol	
Notes	99% bandwidth	



23:21:46 31.08.2020



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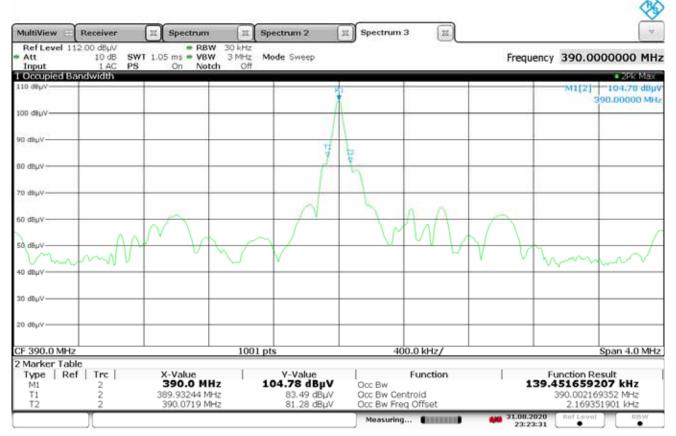
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie IC2 Protocol	
Notes	20dB bandwidth	

MultiView	Receiver	X 5	Spectrum	(II)	Spectrum 2	Spectrum (· * .
Ref Level 1 Att Input		SWT 1.05	= RBW ms = VBW On Note	300 kHz				Frequ	ency 390.00	000000 MH
1 Frequency				(1)						2Pk Max
110 dBµV						N 1				104.89 dBpV 390.00000 MHz
100 dBµV.───		-				A				
90 d8µV										
80 dBµV										
70 dBµV		_			A					
60 dBµV			$ \rightarrow $		MAN V	h				
50, dBuy					JIV		m (h/ L		(
Vihr	m	ЛV	V	\sim		I V	\bigvee	V V	hnm	m
40 dBµV										
30 dBµV										
20 dBµV				V1 309. 4 -975.	12 MHz 010 MHz	-	90.400 MH2			
CF 390.0 MH;	,			1001	pts	40	0.0 kHz/	1		Span 4.0 MHz
	1							#8 31.00.2 23:23	020 Ref Level	

23:23:02 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie IC2 Protocol	
Notes	99% bandwidth	



23:23:32 31.08.2020



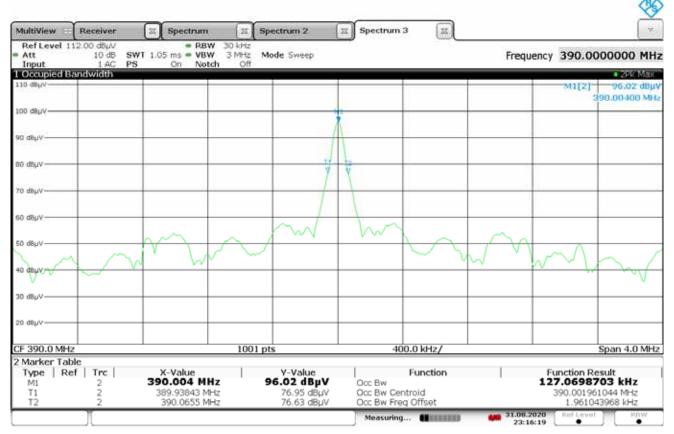
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie 9 DIP switch Protocol	
Notes	20dB bandwidth	

(1		<u></u>
MultiView E 1 Ref Level 112 Att Input	00 d8µV	XX Spectrum XX = RBW 30 kd 1.05 ms VBW 300 kd On Notch 0	lz.	I Spectrum 3 II	Frequency 390.0000000 MHz
1 Frequency Sv		on Notal 1	//1		■ 2PK Max
110 dBµV	- <u></u>				M1[2] 96.34 dBpV 390.00000 MHz
100 dBµV					
90 dBµV				<u>A</u>	
80 dBµV	11.16.140.00//				
70 dBµV					
60 dBµV				'M	
			m	5	
50 dBµV	M		~~		W WAY WAY
40 dBuV-	~	V			
30 dBµV					
20 dBµV					
CE DOD O MEL				400.0 kt/= (
CF 390.0 MHz		10	01 pts	400.0 kHz/	Span 4.0 MHz 31.00.2020 [Ref Level] [RBW

23:15:50 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie 9 DIP switch Protocol	
Notes	99% bandwidth	



23:16:20 31.08.2020



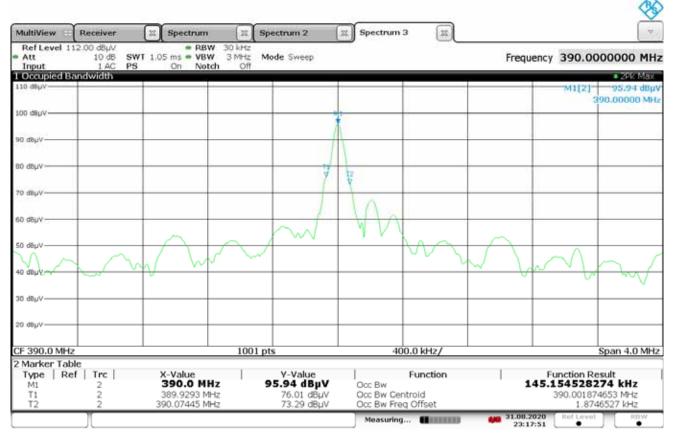
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie 12 DIP switch Protocol	
Notes	20dB bandwidth	

MultiView	Receiver	Spectrum	Spectrum 2	I Spectrum 3 II	*
Ref Level 11 Att Input	2.00 dBµV	RBW 30 kH 1.05 ms = VBW 300 kH On Notch 0	z z Mode Sweep	(apernanio (a)	Frequency 390.000000 MHz
1 Frequency S					 2Pk Max
110 dBµV					M1[2] 96.00 dBpV 390.00000 MHz
100 dBµV				M1.	
90 d8µV				<u>A</u>	
80 dBµV					
70 dBµV					
60 dBµV					
50 dBµV		$-\Delta h_{\Delta}$	\mathcal{M}	h	
$\sum $	\sim		~~~	\-∕ \	W how have
40 dBuy	~	0			
30 dBµV					
20 dBµV			9.512 MHz		
CF 390.0 MHz		100)1 pts	400.0 kHz/	Span 4.0 MHz
	Y I	100		Measuring	23:17:23 Ref Level RBW

23:17:24 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Genie 12 DIP switch Protocol	
Notes	99% bandwidth	



23:17:51 31.08.2020



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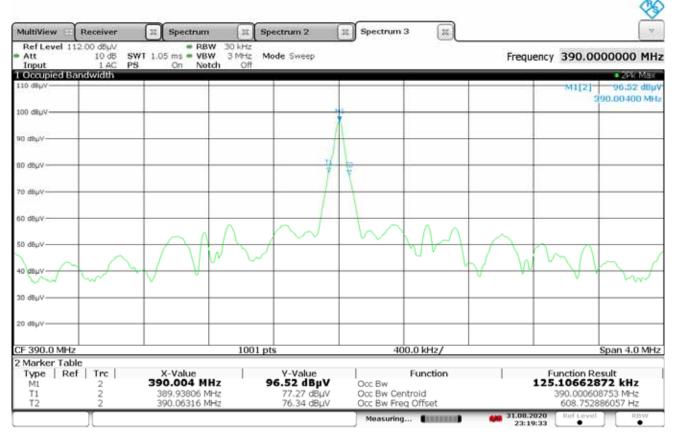
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Overhead Door Protocol	
Notes	20dB bandwidth	

Ref Level 112 00 dBµV # RBW 30 kHz Mode Sweep Frequency 390.1 Input 1 AC PS On Notch Off Frequency 390.1 1 AC PS On Notch Off Mode Sweep Frequency 390.1 1 AC PS On Notch Off Mode Sweep Mode Sweep 1 In dBµV Intervention Intervention Mode Sweep Mode Sweep Mode Sweep 100 dBµV Intervention Intervention Intervention Mode Sweep Mode Sweep	0000000 MHz 208 MSx 1 96.27 dBpV 390.00400 MHz
1 Frequency Sweep 110 dBµV 100 dBµV 100 dBµV 100 dBµV	96.27 dBpV
100 dBµV	
The second se	
00 dBµV	
80 dB _µ v-	
70 dtµv	
ο 0 μγμ	
50 dBuv	
	m/
40/88M	
30 dBµV	
20 dBµV	
CF 390.0 MHz 1001 pts 400.0 kHz/	Span 4.0 MHz

23:19:02 31.08.2020



Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 390MHz	
Protocol	Overhead Door Protocol	
Notes	99% bandwidth	



23:19:33 31.08.2020



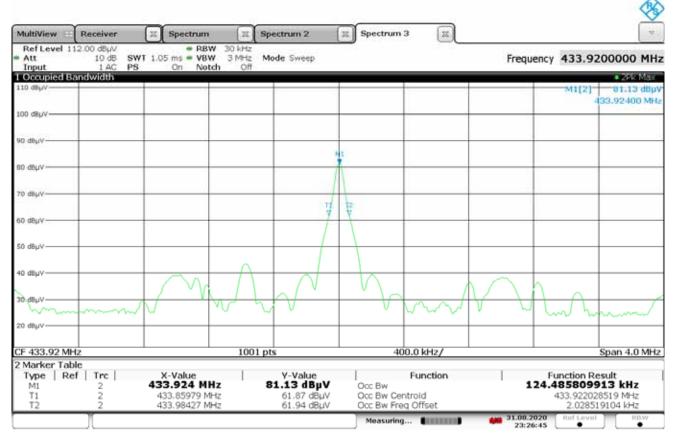
Test Details		
Manufacturer	Genie Company	
Model	UWWC	
Mode	Transmit at 433.92MHz	
Protocol	FAAC Protocol	
Notes	20dB bandwidth	

		_			_	C	8					Ś
MultiView :: Ref Level 11 Att		II Spectrum PRBW 1.05 ms • VBW	30 kHz 300 kHz	Spectrum 2 Mode Sweep	UI I	Spectrum	3	(<u></u>	Fre	quenc	y 433.92	200000 MHz
Input 1 Frequency S		On Note	n un									 2Pk Max
110 dBµV					1				-		M1[2]	
100 dBµV					+							
90 d8µV			_		-		_			-		
80 dBµV					Ŧ							
70 dliµV												
	41 61 320 dBp		_		1							
60 dBµV					Π							
50 dBµV					\square		_					
40 dBµV		\frown				M	\uparrow					
30 dBµV	Am	\mathcal{F}	m	N-	+		\mathbf{I}	\sim	\checkmark	t fr	Im	Am
20 dBµV			N1 493.970		-		2 4 3 4 .	62 MHz		-		
CF 433.92 MH			1001	pts		40	0.0 k	Hz/				Span 4.0 MHz
	Ϋ́					Measuring	_		#8 31.0 2	0.2020 3:26:12	Ref Level	

23:26:13 31.08.2020



Test Details			
Manufacturer	Genie Company		
Model	UWWC		
Mode	Transmit at 433.92MHz		
Protocol	FAAC Protocol		
Notes	99% bandwidth		



23:26:46 31.08.2020



24. Scope of Accreditation



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELITE ELECTRONIC ENGINEERING, INC. 1516 Centre Circle Downers Grove, IL 60515 Robert Bugielski (QA Manager) Phone: 630 495 9770 ext. 168 Email: rbugielski@elitetest.com Craig Fanning (EMC Lab Manager) Phone: 630 495 9770 ext. 112 Email: cfanning@elitetest.com Stanley Dolecki (Automotive Team Leader) Phone: 630 495 9770 ext. 103 Email: sdolecki@elitetest.com Website: www.elitetest.com

Valid to: June 30, 2021

ELECTRICAL

Certificate Number: 1786.01

In recognition of the successful completion of the A2LA Accreditation Program evaluation process, accreditation is granted to this laboratory to perform the following <u>automotive electromagnetic</u> <u>compatibility and other electrical tests</u>:

Test Technology:	Test Method(s) ¹ :
Transient Immunity	ISO 7637-2 (including emissions); ISO 7637-3; ISO 16750-2:2012, Sections 4.6.3 and 4.6.4; CS-11979, Section 6.4; CS.00054, Section 5.9; EMC-CS-2009.1 (CI220); FMC1278 (CI220, CI221, CI222); GMW 3097, Section 3.5; SAE J1113-11; SAE J1113-12
Electrostatic Discharge (ESD)	ISO 10605 (2001, 2008); CS-11979 Section 7.0; CS.00054, Section 5.10; EMC-CS-2009.1 (CI 280); FMC1278 (CI280); SAE J1113-13; GMW 3097 Section 3.6
Conducted Emissions	CISPR 25 (2002, 2008), Sections 6.2 and 6.3; CISPR 25 (2016), Sections 6.3 and 6.4; CS-11979, Section 5.1; CS.00054, Sections 5.6.1 and 5.6.2; GMW 3097, Section 3.3.2; EMC-CS-2009.1 (CE 420); FMC1278 (CE420, CE421)
Radiated Emissions Anechoic	CISPR 25 (2002, 2008), Section 6.4; CISPR 25 (2016), Section 6.5; CS-11979, Section 5.3; CS.00054, Section 5.6.3; GMW 3097, Section 3.3.1; EMC-CS-2009.1 (RE 310); FMC1278 (RE310)
Vehicle Radiated Emissions	CISPR 12; ICES-002

(A2LA Cert. No. 1786.01) Revised 01/10/2020

M Page 1 of 8

5202 Presidents Court, Suite 220 | Frederick, MD 21703-8515 | Phone: 301 644 3248 | Fax: 240 454 9449 | www.A2LA.org



Test Technology:	Test Method(s) ¹ :
Bulk Current Injection (BCI)	ISO 11452-4; CS-11979, Section 6.1; CS.00054, Section 5.8.1; GMW 3097, Section 3.4.1; SAE J1113-4; EMC-CS-2009.1 (RI112); FMC1278 (RI112)
Bulk Current Injections (BCI) (Closed Loop Method)	ISO 11452-4; SAE J1113-4
Radiated Immunity Anechoic (Including Radar Pulse)	ISO 11452-2; ISO 11452-5; CS-11979, Section 6.2; CS.00054, Section 5.8.2; GMW 3097, Section 3.4.2; EMC-CS-2009.1 (RI114); FMC1278 (RI114); SAE J1113-21
Radiated Immunity Magnetic Field	ISO 11452-8
Radiated Immunity Reverb	ISO/IEC 61000-4-21; GMW 3097, Section 3.4.3; EMC-CS-2009.1 (RI114); FMC1278 (RI114); ISO 11452-11
Radiated Immunity (Portable Transmitters)	ISO 11452-9; EMC-CS-2009.1 (RI115); FMC1278 (RI115)
Vehicle Radiated Immunity (ALSE)	ISO 11451-2
Electrical Loads	ISO 16750-2, Sections 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.11, and 4.12
Dielectric Withstand Voltage	MIL-STD-202, Method 301; EIA-364-20D
Insulation Resistance	MIL-STD-202, Method 302; SAE/USCAR-2, Revision 6, Section 5.5.1; EIA-364-21D
Contact Resistance	MIL-STD-202, Method 307; SAE/USCAR-2, Revision 6, Section 5.3.1; EIA/ECA-364-23C; USCAR21-3 Section 4.5.3
DC Resistance	MIL-STD-202, Method 303
Contact Chatter	MIL-STD-202, Method 310; SAE/USCAR-2, Revision 6, Section 5.1.9
Voltage Drop	SAE/USCAR-2, Revision 6, Section 5.3.2; USCAR21-3 Section 4.5.6

Ann Page 2 of 8



Test Technology:	Test Method(s) ¹ :
Emissions Radiated and Conducted (3m Semi-anechoic chamber, up to 40 GHz)	47 CFR, FCC Part 15 B (using ANSI C63.4:2014); 47 CFR, FCC Part 18 (using FCC MP-5:1986); ICES-001; ICES-003; ICES-005; IEC/CISPR 11, Ed. 4.1 (2004-06); AS/NZS CISPR 11 (2004); IEC/CISPR 11 Ed 5 (2009-05) + A1 (2010); KN 11 (2008-5) with RRL Notice No. 2008-3 (May 20, 2008); CISPR 11; EN 55011; KN 11; CNS 13803 (1997, 2003); CISPR 14-1; EN 55014-1; AS/NZS CISPR 14.1; KN 14-1; IEC/CISPR 22 (1997); EN 55022 (1998) + A1(2000); EN 55022 (1998) + A1(2000) + A2(2003); EN 55022 (2006); IEC/CISPR 22 (2008-09); AS/NZS CISPR 22 (2004); AS/NZS CISPR 22, 3rd Edition (2006); KN 22 (up to 6 GHz); CNS 13438 (up to 6 GHz); VCCI V-3 (up to 6 GHz); CISPR 32; EN 55032; KN 32
Current Harmonics	IEC 61000-3-2; EN 61000-3-2; KN 61000-3-2
Flicker and Fluctuations	IEC 61000-3-3; EN 61000-3-3; KN 61000-3-3
Immunity Electrostatic Discharge	IEC 61000-4-2, Ed. 1.2 (2001); IEC 61000-4-2 (1995) + A1(1998) + A2(2000); EN 61000-4-2 (1995); EN 61000-4-2 (2009-05); KN 61000-4-2 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); IEC 61000-4-2; EN 61000-4-2; KN 61000-4-2; IEEE C37.90.3 2001
Radiated Immunity	IEC 61000-4-3 (1995) + A1(1998) + A2(2000); IEC 61000-4-3, Ed. 3.0 (2006-02); IEC 61000-4-3, Ed. 3.2 (2010); KN 61000-4-3 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); IEC 61000-4-3; EN 61000-4-3; KN 61000-4-3; IEEE C37.90.2 2004
Electrical Fast Transient/Burst	IEC 61000-4-4, Ed. 2.0 (2004-07); IEC 61000-4-4, Ed. 2.1 (2011); IEC 61000-4-4 (1995) + A1(2000) + A2(2001); KN 61000-4-4 (2008-5); RRL Notice No. 2008-5 (May 20, 2008); IEC 61000-4-4; EN 61000-4-4; KN 61000-4-4
Surge	IEC 61000-4-5 (1995) + A1(2000); IEC 61000-4-5, Ed 1.1 (2005-11); EN 61000-4-5 (1995) + A1(2001); KN 61000-4-5 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); IEC 61000-4-5; EN 61000-4-5; KN 61000-4-5; IEEE C37.90.1 2012

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Test Technology:	Test Method(s) ¹ :
Immunity (cont'd) Conducted Immunity	IEC 61000-4-6 (1996) + A1(2000); IEC 61000-4-6, Ed 2.0 (2006-05); IEC 61000-4-6 Ed. 3.0 (2008); KN 61000-4-6 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); EN 61000-4-6 (1996) + A1(2001); IEC 61000-4-6; EN 61000-4-6; KN 61000-4-6
Power Frequency Magnetic Field Immunity	IEC 61000-4-8 (1993) + A1(2000); IEC 61000-4-8 (2009); EN 61000-4-8 (1994) + A1(2000); KN 61000-4-8 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); IEC 61000-4-8; EN 61000-4-8; KN 61000-4-8
Voltage Dips, Short Interrupts, and Line Voltage Variations	IEC 61000-4-11, Ed. 2 (2004-03); KN 61000-4-11 (2008-5); RRL Notice No. 2008-4 (May 20, 2008); IEC 61000-4-11; EN 61000-4-11; KN 61000-4-11
Ring Wave	IEC 61000-4-12, Ed. 2 (2006-09); EN 61000-4-12:2006; IEC 61000-4-12; EN 61000-4-12; KN 61000-4-12
Generic and Product Specific EMC Standards	IEC/EN 61000-6-1; AS/NZS 61000-6-1; KN 61000-6-1; IEC/EN 61000-6-2; AS/NZS 61000-6-2; KN 61000-6-2; IEC/EN 61000-6-3; AS/NZS 61000-6-3; KN 61000-6-3; IEC/EN 61000-6-4; AS/NZS 61000-6-4; KN 61000-6-4; EN 50130-4; IEC 61326-1; IEC/CISPR 14-2; EN 55014-2; AS/NZS CISPR 14.2; KN 14-2; IEC/CISPR 24; AS/NZS CISPR 24; EN 55024; KN 24; IEC 60601-1-2; JIS T0601-1-2
TxRx EMC Requirements	EN 301 489-1; EN 301 489-3; EN 301 489-9; EN 301 489-17; EN 301 489-19; EN 301 489-52;
European Radio Test Standards	ETSI EN 300 086-1; ETSI EN 300 086-2; ETSI EN 300 113-1; ETSI EN 300 113-2; ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 330-1; ETSI EN 300 330-2; ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI EN 300 422-1; ETSI EN 300 422-2; ETSI EN 300 328; ETSI EN 301 893; ETSI EN 301 511; ETSI EN 301 908-1; ETSI EN 908-2; ETSI EN 908-13; ETSI EN 301 413;
	ETSI EN 302 502

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Test Technology:	Test Method(s) ¹ :
Canadian Radio Tests	RSS-102 (RF Exposure Evaluation only); RSS-111; RSS-112; RSS-117; RSS-119; RSS-123; RSS-125; RSS-127; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134; RSS-135; RSS-137; RSS-139; RSS-140; RSS-141; RSS-142; RSS-170; RSS-181; RSS-182; RSS-191; RSS-192; RSS-194; RSS-195; RSS-196; RSS-197; RSS-199; RSS-210; RSS-211; RSS-213; RSS-215; RSS-216; RSS-220; RSS-222; RSS-236; RSS-238; RSS-243; RSS-244; RSS-246; RSS-247; RSS-251; RSS-252; RSS-287; RSS-288; RSS-310; RSS-GEN
Mexico Radio Tests	IFT-008; NOM-208-SCFI
Japan Radio Tests	Radio Law No. 131, Ordinance of MPT No. 37, 1981, MIC Notification No. 88:2004, Table No. 22-11; ARIB STD-T66, Regulation 18
Taiwan Radio Tests	LP-0002
Australia/New Zealand Radio Tests	AS/NZS 4268; Radiocommunications (Short Range Devices) Standard (2014)
Hong Kong Radio Tests	HKCA 1039 Issue 6; HKCA 1042; HKCA 1033 Issue 7; HKCA 1061; HKCA 1008; HKCA 1043; HKCA 1057; HKCA 1073
Korean Radio Test Standards	KN 301 489-1; KN 301 489-3; KN 301 489-9; KN 301 489-17; KN 301 489-52
Unlicensed Radio Frequency Devices (3 Meter Semi-Anechoic Room)	47 CFR FCC Part 15C, 15D, 15E, 15F, 15G, 15H (using ANSI C63.10:2013, ANSI C63.17:2013 and FCC KDB 905462 D02 (v02))
Licensed Radio Service Equipment	47 CFR FCC Parts 20, 22, 24, 25, 27, 30, 73, 74, 80, 87, 90, 95, 96, 97, 101; ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015;
OTA (Over the Air) Performance GSM, GPRS, EGPRS UMTS (W-CDMA) LTE including CAT M1 A-GPS for UMTS/GSM LTS A-GPS, A-GLONASS, SIB8/SIB16 Large Device/Laptop/Tablet Testing Integrated Device Testing WiFi 802.11 a/b/g/n/ac	CTIA Test Plan for Wireless Device Over-the-Air Performance (Method for Measurement for Radiated Power and Receiver Performance) V3.8.2; CTIA Test Plan for RF Performance Evaluation of WiFi Mobile Converged Devices V2.1.0

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Test Technology:	Test Method(s) ¹ :
Electrical Measurements and	
Simulation	
AC Voltage / Current	FAA AC 150/5345-10H
(1mV to 5kV) 60 Hz	FAA AC 150/5345-43J
(0.1V to 250V) up to 500 MHz	FAA AC 150/5345-44K
(1µA to 150A) 60 Hz	FAA AC 150/5345-46E
DC Voltage / Current	FAA AC 150/5345-47C
(1mV to 15-kV)/(1µA to 10A)	FAA EB 67D
Power Factor / Efficiency / Crest Factor	
(Power to 30kW)	
Resistance	
(1mΩ to 4000MΩ)	
Surge	
(Up to 10 kV / 5 kA) (Combination	
Wave and Ring Wave)	

On the following products and materials:

Telecommunications Terminal Equipment (TTE), Radio Equipment, Network Equipment, Information Technology Equipment (ITE), Automotive Electronic Equipment, Automotive Hybrid Electronic Devices, Maritime Navigation and Radio Communication Equipment and Systems, Vehicles, Boats and Internal Combustion Engine Driven Devices, Automotive, Aviation, and General Lighting Products, Medical Electrical Equipment, Motors, Industrial, Scientific and Medical (ISM) Radio-Frequency Equipment, Household Appliances, Electric Tools, Low-voltage Switchgear and Control gear, Programmable Controllers, Electrical Equipment for Measurement, Control and Laboratory Use, Base Materials, Power and Data Transmission Cables and Connectors

¹When the date, revision or edition of a test method standard is not identified on the scope of accreditation, the laboratory is expected to be using the current version within one year of the date of publication, per part C., Section 1 of A2LA R101 - General Requirements - Accreditation of ISO-IEC 17025 Laboratories.

Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1²

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
<u>Unintentional Radiators</u> Part 15B	ANSI C63.4:2014	40000
Industrial, Scientific, and Medical Equipment Part 18	FCC MP-5 (February 1986)	40000
Intentional Radiators Part 15C	ANSI C63.10:2013	40000
Unlicensed Personal Communication Systems Devices Part 15D	ANSI C63.17:2013	40000
(A2LA Cert. No. 1786.01) Revised 01/10/2020	hu	Page 6 of 8



Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1²

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
U-NII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	40000
U-NII with DFS Intentional Radiators Part 15E	FCC KDB 905462 D02 (v02)	40000
UWB Intentional Radiators Part 15F	ANSI C63.10:2013	40000
BPL Intentional Radiators Part 15G	ANSI C63.10:2013	40000
White Space Device Intentional Radiators Part 15H	ANSI C63.10:2013	40000
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Parts 22 (cellular), 24, 25 (below 3 GHz), and 27	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>General Mobile Radio Services (FCC</u> <u>Licensed Radio Service Equipment)</u> Parts 22 (non-cellular), 90 (below 3 GHz), 95, 97, and 101 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
<u>Citizens Broadband Radio Services (FCC</u> <u>Licensed Radio Service Equipment)</u> Part 96 <u>Maritime and Aviation Radio Services</u>	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
Parts 80 and 87	ANSI/TIA-603-E; ANSI C63.26:2015	40000
Microwave and Millimeter Bands Radio Services Parts 25, 30, 74, 90 (above 3 GHz), 97 (above 3 GHz), and 101	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
Broadcast Radio Services Parts 73 and 74 (below 3 GHz)	ANSI/TIA-603-E; TIA-102.CAAA-E; ANSI C63.26:2015	40000
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Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1²

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
Signal Boosters Part 20 (Wideband Consumer Signal Boosters, Provider-specific signal boosters, and Industrial Signal Boosters) Section 90.219	ANSI C63.26:2015	40000

²Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (https://apps.fcc.gov/oetcf/eas/) for a listing of FCC approved laboratories.

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Accredited Laboratory

A2LA has accredited

ELITE ELECTRONIC ENGINEERING INC.

Downers Grove, IL

for technical competence in the field of



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated April 2017).



Presented this 8th day of August 2019.

Vice President, Accreditation Services For the Accreditation Council Certificate Number 1786.01 Valid to June 30, 2021

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.