

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]		Max Permissible Power Density [dBm/500kHz]	Margin [dB]	Pass / Fail
	5745	149	а	6	3.10	30.0	-26.90	Pass
	5785	157	а	6	3.35	30.0	-26.65	Pass
	5825	165	а	6	-0.70	30.0	-30.70	Pass
e	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.10	30.0	-26.90	Pass
Band	5785	157	n (20MHz)	6.5/7.2 (MCS0)	2.84	30.0	-27.16	Pass
ä	5825	165	n (20MHz)	6.5/7.2 (MCS0)	-0.87	30.0	-30.87	Pass
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.72	30.0	-32.72	Pass
	5795	159	n (40MHz)	13.5/15 (MCS0)	-2.89	30.0	-32.89	Pass
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-7.70	30.0	-37.70	Pass

Table 7-18. Band 3 Conducted Power Spectral Density Measurements



Plot 7-106. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 149)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 92 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 83 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili









Plot 7-108. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 165)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 94 of 949
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 84 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.









Plot 7-110. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 95 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 85 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili









Plot 7-112. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) - Ch. 151)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Demo 96 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 86 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					









Plot 7-114. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 97 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 87 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					



Antenna-2 Power Spectral Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]		Max Permissible Power Density [dBm/MHz]	Margin [dB]	Pass / Fail
	5180	36	а	6	1.15	11.0	-9.86	Pass
	5200	40	а	6	5.42	11.0	-5.58	Pass
	5240	48	а	6	5.29	11.0	-5.71	Pass
-	5180	36	n (20MHz)	6.5/7.2 (MCS0)	0.73	11.0	-10.27	Pass
Band	5200	40	n (20MHz)	6.5/7.2 (MCS0)	4.58	11.0	-6.42	Pass
B	5240	48	n (20MHz)	6.5/7.2 (MCS0)	4.69	11.0	-6.31	Pass
	5190	38	n (40MHz)	13.5/15 (MCS0)	-4.35	11.0	-15.35	Pass
	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.73	11.0	-11.73	Pass
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-8.74	11.0	-19.74	Pass
	5260	52	а	6	4.71	11.0	-6.29	Pass
	5280	56	а	6	4.98	11.0	-6.02	Pass
	5320	64	а	6	1.22	11.0	-9.78	Pass
2A	5260	52	n (20MHz)	6.5/7.2 (MCS0)	4.74	11.0	-6.26	Pass
Band 2A	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.81	11.0	-6.19	Pass
Ba	5320	64	n (20MHz)	6.5/7.2 (MCS0)	1.04	11.0	-9.96	Pass
	5270	54	n (40MHz)	13.5/15 (MCS0)	-0.73	11.0	-11.73	Pass
	5310	62	n (40MHz)	13.5/15 (MCS0)	-4.46	11.0	-15.46	Pass
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-8.54	11.0	-19.54	Pass
	5500	100	а	6	1.84	11.0	-9.16	Pass
	5580	116	а	6	5.81	11.0	-5.19	Pass
	5720	144	а	6	4.49	11.0	-6.51	Pass
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	1.38	11.0	-9.63	Pass
2C	5580	116	n (20MHz)	6.5/7.2 (MCS0)	4.97	11.0	-6.03	Pass
Band	5720	144	n (20MHz)	6.5/7.2 (MCS0)	4.60	11.0	-6.40	Pass
Ba	5510	102	n (40MHz)	13.5/15 (MCS0)	-4.63	11.0	-15.63	Pass
	5550	110	n (40MHz)	13.5/15 (MCS0)	-0.30	11.0	-11.30	Pass
	5710	142	n (40MHz)	13.5/15 (MCS0)	-1.84	11.0	-12.84	Pass
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-8.40	11.0	-19.40	Pass
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-6.54	11.0	-17.54	Pass

Table 7-19. Conducted Power Spectral Density Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 89 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 88 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.





Plot 7-115. Power Spectral Density Plot (802.11a (UNII Band 1) - Ch. 36)



Plot 7-116. Power Spectral Density Plot (802.11a (UNII Band 1) – Ch. 40)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 90 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 89 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.









Plot 7-118. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) - Ch. 36)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 00 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 90 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					





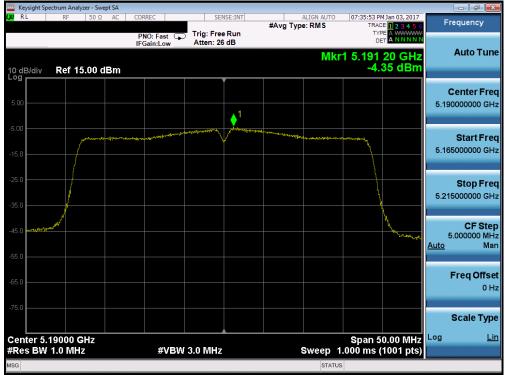
Plot 7-119. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) – Ch. 40)

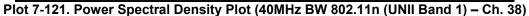


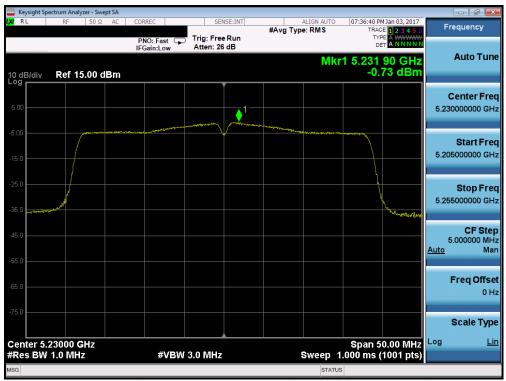
Plot 7-120. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 1) - Ch. 48)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 01 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 91 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				









Plot 7-122. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 1) – Ch. 46)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 02 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 92 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized









Plot 7-124. Power Spectral Density Plot (802.11a (UNII Band 2A) - Ch. 52)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 93 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 95 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.





Plot 7-125. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 56)



Plot 7-126. Power Spectral Density Plot (802.11a (UNII Band 2A) – Ch. 64)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 94 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 94 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1





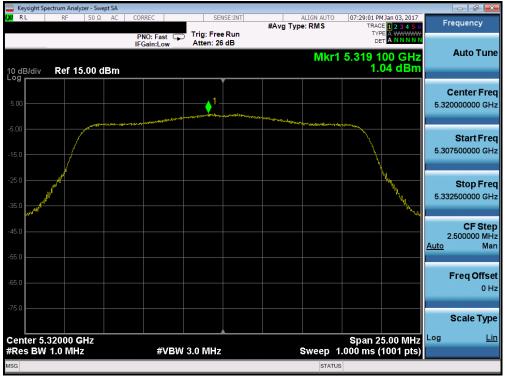
Plot 7-127. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 52)



Plot 7-128. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) - Ch. 56)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dege 05 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 95 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1





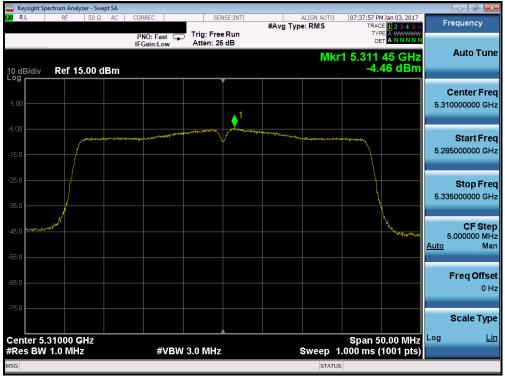
Plot 7-129. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2A) – Ch. 64)



Plot 7-130. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) - Ch. 54)

		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dege 06 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 96 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				





Plot 7-131. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2A) – Ch. 62)



Plot 7-132. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2A) - Ch. 58)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 07 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 97 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				









Plot 7-134. Power Spectral Density Plot (802.11a (UNII Band 2C) - Ch. 116)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Demo 09 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	/15/2017 Portable Handset		Page 98 of 248	
© 2017 PCTEST Engineering Laboratory, Inc.					

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.







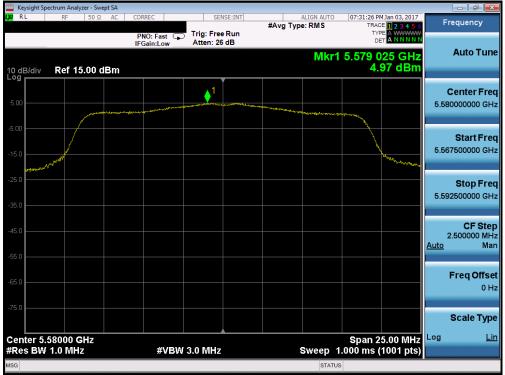


Plot 7-136. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) - Ch. 100)

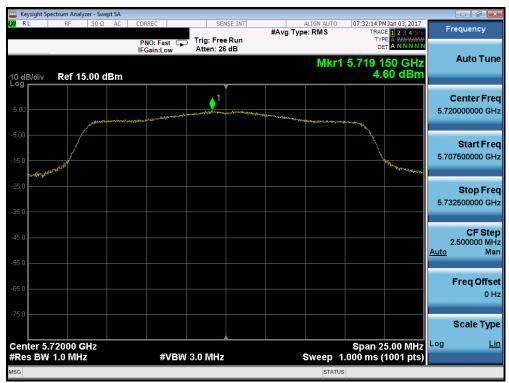
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 00 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	016 - 2/15/2017 Portable Handset		Page 99 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.







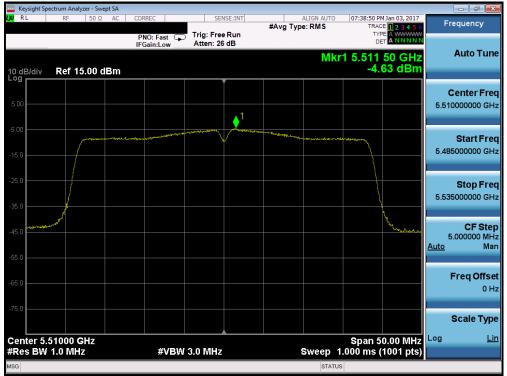


Plot 7-138. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 2C) - Ch. 144)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 100 of 248
1M1701180032-05-R3.ZNF	1180032-05-R3.ZNF 12/27/2016 - 2/15/2017 Portable Handset			Page 100 of 246
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili





Plot 7-139. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 102)

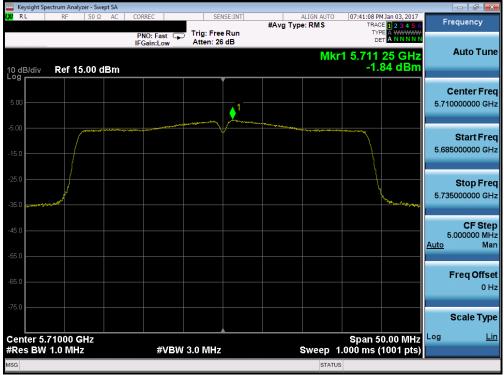


Plot 7-140. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) - Ch. 110)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 101 of 248
1M1701180032-05-R3.ZNF 12/27/2016 - 2/15/2017 Portal		Portable Handset		Page 101 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili





Plot 7-141. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 2C) – Ch. 142)



Plot 7-142. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 106)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 102 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				





Plot 7-143. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 2C) - Ch. 138)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 103 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 103 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili



	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]		Max Permissible Power Density [dBm/500kHz]	Margin [dB]	Pass / Fail
	5745	149	а	6	2.11	30.0	-27.89	Pass
	5785	157	а	6	2.23	30.0	-27.77	Pass
	5825	165	а	6	-1.40	30.0	-31.40	Pass
e	5745	149	n (20MHz)	6.5/7.2 (MCS0)	2.18	30.0	-27.82	Pass
Band	5785	157	n (20MHz)	6.5/7.2 (MCS0)	2.15	30.0	-27.85	Pass
ä	5825	165	n (20MHz)	6.5/7.2 (MCS0)	-1.74	30.0	-31.74	Pass
	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.89	30.0	-32.89	Pass
	5795	159	n (40MHz)	13.5/15 (MCS0)	-3.49	30.0	-33.49	Pass
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-7.96	30.0	-37.96	Pass

Table 7-20. Band 3 Conducted Power Spectral Density Measurements



Plot 7-144. Power Spectral Density Plot (802.11a (UNII Band 3) – Ch. 149)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg 104 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 104 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

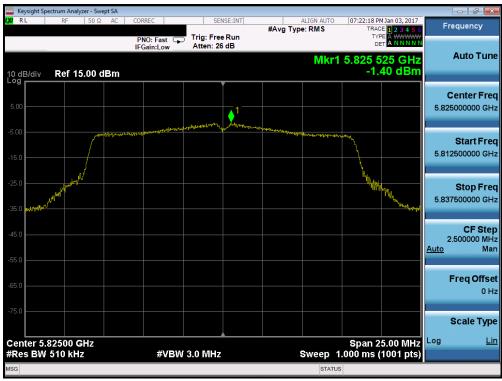
12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili







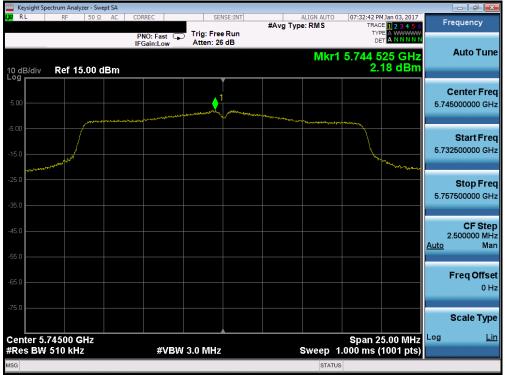


Plot 7-146. Power Spectral Density Plot (802.11a (UNII Band 3) - Ch. 165)

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 105 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 105 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	•		V 6.1

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.





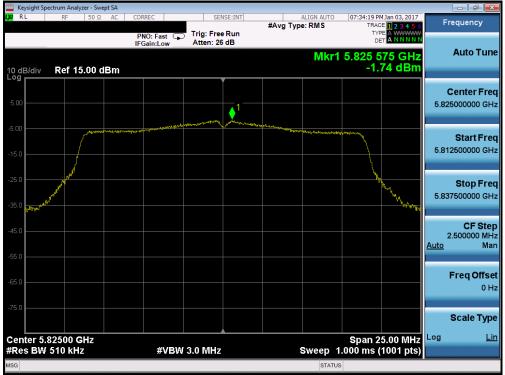




Plot 7-148. Power Spectral Density Plot (20MHz BW 802.11n (UNII Band 3) - Ch. 157)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 106 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 106 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1









Plot 7-150. Power Spectral Density Plot (40MHz BW 802.11n (UNII Band 3) - Ch. 151)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 107 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 107 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1



RL RL	Spectrum Analyz RF	50 Ω AC	CORREC		SE	NSE:INT		ALIGN AUTO	07:42:45 PI	M Jan 03, 2017		
				ast 😱	Trig: Fre		#Avg Typ		TRAC	E 1 2 3 4 5 6 A WWWWW A NNNN	Freq	uency
			IFGain:L	_ow	Atten: 2	6 dB						
0 dB/div	Ref 15	.00 dBm	1					Mkr	1 5.796 -3.	25 GHz 49 dBm	A	uto Tun
^{.og}						Ĭ					Ce	nter Fre
5.00												00000 GH
						♦ ¹					0.75000	
5.00	7	and the second	A Company to a factor of the	- and the second			and a second	hanne	monsering		s	tart Fre
15.0						Y					5.77000	00000 GH
25.0									ار		S	top Fre
35.0	Summer Wood								``````````````````````````````````````	moment	5.82000	00000 GH
45.0											E OC	CF Ste
											Auto	Ma
55.0												
											En	eq Offse
65.0												0 H
75.0											Sc	ale Typ
	5.79500 G							_	Span 5	0.00 MHz	Log	Li
Res BI	V 510 kHz			¢VBW 3	3.0 MHz			sweep 1	.000 ms (1001 pts)		
SG								STATUS				





Plot 7-152. Power Spectral Density Plot (80MHz BW 802.11ac (UNII Band 3) - Ch. 155)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 109 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 108 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	·		V 6.1



	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	Antenn-2 Power Density [dBm]	Summed MIMO Power Density [dBm]	Max Permissible Power Density [dBm/MHz]	Margin [dB]	Pass / Fail
	5180	36	n (20MHz)	6.5/7.2 (MCS0)	1.07	0.73	3.91	11.0	-7.09	Pass
	5200	40	n (20MHz)	6.5/7.2 (MCS0)	4.71	4.58	7.65	11.0	-3.35	Pass
d 1	5240	48	n (20MHz)	6.5/7.2 (MCS0)	5.21	4.69	7.97	11.0	-3.03	Pass
Band	5190	38	n (40MHz)	13.5/15 (MCS0)	-4.25	-4.35	-1.29	11.0	-12.29	Pass
-	5230	46	n (40MHz)	13.5/15 (MCS0)	-0.24	-0.73	2.54	11.0	-8.46	Pass
	5210	42	ac (80MHz)	29.3/32.5 (MCS0)	-8.29	-8.74	-5.50	11.0	-16.50	Pass
	5260	52	n (20MHz)	6.5/7.2 (MCS0)	5.29	4.74	8.03	11.0	-2.97	Pass
-	5280	56	n (20MHz)	6.5/7.2 (MCS0)	4.82	4.81	7.83	11.0	-3.17	Pass
4 2A	5320	64	n (20MHz)	6.5/7.2 (MCS0)	0.86	1.04	3.96	11.0	-7.04	Pass
Band	5270	54	n (40MHz)	13.5/15 (MCS0)	-0.59	-0.73	2.35	11.0	-8.65	Pass
-	5310	62	n (40MHz)	13.5/15 (MCS0)	-4.64	-4.46	-1.53	11.0	-12.53	Pass
	5290	58	ac (80MHz)	29.3/32.5 (MCS0)	-7.93	-8.54	-5.21	11.0	-16.21	Pass
	5500	100	n (20MHz)	6.5/7.2 (MCS0)	1.21	1.38	4.30	11.0	-6.70	Pass
	5580	116	n (20MHz)	6.5/7.2 (MCS0)	5.15	4.97	8.07	11.0	-2.93	Pass
0	5720	144	n (20MHz)	6.5/7.2 (MCS0)	5.08	4.60	7.86	11.0	-3.14	Pass
1 2C	5510	102	n (40MHz)	13.5/15 (MCS0)	-3.85	-4.63	-1.21	11.0	-12.21	Pass
Band	5550	110	n (40MHz)	13.5/15 (MCS0)	-0.30	-0.30	2.71	11.0	-8.29	Pass
-	5710	142	n (40MHz)	13.5/15 (MCS0)	-0.49	-1.84	1.90	11.0	-9.10	Pass
	5530	106	ac (80MHz)	29.3/32.5 (MCS0)	-7.97	-8.40	-5.17	11.0	-16.17	Pass
	5690	138	ac (80MHz)	29.3/32.5 (MCS0)	-5.15	-6.54	-2.78	11.0	-13.78	Pass

Summed MIMO Power Spectral Density Measurements

Table 7-21. Bands 1, 2A, 2C MIMO Conducted Power Spectral Density Measurements

_	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]	-		Max Permissible Power Density [dBm/500kHz]	Margin	Pass / Fail
	5745	149	n (20MHz)	6.5/7.2 (MCS0)	3.10	2.18	5.68	30.0	-24.32	Pass
	5785	157	n (20MHz)	6.5/7.2 (MCS0)	2.84	2.15	5.52	30.0	-24.48	Pass
q 3	5825	165	n (20MHz)	6.5/7.2 (MCS0)	-0.87	-1.74	1.73	30.0	-28.27	Pass
Ban	5755	151	n (40MHz)	13.5/15 (MCS0)	-2.72	-2.89	0.21	30.0	-29.79	Pass
_	5795	159	n (40MHz)	13.5/15 (MCS0)	-2.89	-3.49	-0.17	30.0	-30.17	Pass
	5775	155	ac (80MHz)	29.3/32.5 (MCS0)	-7.70	-7.96	-4.82	30.0	-34.82	Pass

Table 7-22. Band 3 MIMO Conducted Power Spectral Density Measurements

Note:

Per KDB 662911 v02r01 Section E)2), the power spectral density at Antenna 1 and Antenna 2 were first measured separately as shown in the section above. The measured values were then summed in linear power units then converted back to dBm.

Sample MIMO Calculation:

At 5180MHz the average conducted power spectral density was measured to be 1.07 dBm for Antenna-1 and 0.73 dBm for Antenna-2.

Antenna 1 + Antenna 2 = MIMO

(1.07 dBm + 0.73 dBm) = (1.28 mW + 1.18 mW) = 2.46 mW = 3.91 dBm

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 249
1M1701180032-05-R3.ZNF 12/27/2016 - 2/15/2017		Portable Handset		Page 109 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



7.6 Frequency Stability §15.407(g)

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -30°C and +50°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

5,180,000,000	Hz
36	
3.80	VDC
	36

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	5,180,000,270	270	0.00000521
100 %		- 30	5,179,999,848	-152	-0.00000293
100 %		- 20	5,180,000,446	446	0.00000861
100 %		- 10	5,180,000,088	88	0.00000170
100 %		0	5,179,999,991	-9	-0.00000017
100 %		+ 10	5,180,000,031	31	0.00000060
100 %		+ 20	5,179,999,970	-30	-0.00000058
100 %		+ 30	5,179,999,785	-215	-0.00000415
100 %		+ 40	5,180,000,320	320	0.00000618
100 %		+ 50	5,180,000,158	158	0.00000305
BATT. ENDPOINT	3.40	+ 20	5,179,999,627	-373	-0.00000720
Table 7-23	B. Frequency	Stability Mea	asurements for U	NII Band 1 (Ch. 36)

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 110 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 110 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereor, please contact INFO@PCTESTLAB.COM.



Frequency Stability §15.407(g)

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -30°C and +50°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

OPERATING FREQUENCY:	5,260,000,000	Hz
CHANNEL:	52	
REFERENCE VOLTAGE:	3.80	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	5,260,000,001	1	0.00000002
100 %		- 30	5,259,999,895	-105	-0.00000200
100 %		- 20	5,260,000,349	349	0.00000663
100 %		- 10	5,260,000,009	9	0.00000017
100 %		0	5,259,999,958	-42	-0.0000080
100 %		+ 10	5,259,999,815	-185	-0.00000352
100 %		+ 20	5,259,999,991	-9	-0.00000017
100 %		+ 30	5,259,999,680	-320	-0.00000608
100 %		+ 40	5,259,999,993	-7	-0.00000013
100 %		+ 50	5,259,999,971	-29	-0.00000055
BATT. ENDPOINT	3.40	+ 20	5,260,000,339	339	0.00000644
Table 7-24	. Frequency S	Stability Mea	surements for UN	III Band 2A	(Ch. 52)

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 111 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 111 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory. Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



Frequency Stability §15.407(g)

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -30°C and +50°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

OPERATING FREQUENCY:	5,500,000,000	Hz
CHANNEL:	100	
REFERENCE VOLTAGE:	3.80	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)	
100 %	3.80	+ 20 (Ref)	5,500,000,041	41	0.00000075	
100 %		- 30	5,499,999,669	-331	-0.00000602	
100 %		- 20	5,500,000,236	236	0.00000429	
100 %		- 10	5,499,999,997	-3	-0.00000005	
100 %		0	5,500,000,242	242	0.00000440	
100 %		+ 10	5,500,000,346	346	0.00000629	
100 %		+ 20	5,499,999,753	-247	-0.00000449	
100 %		+ 30	5,499,999,990	-10	-0.00000018	
100 %		+ 40	5,500,000,137	137	0.00000249	
100 %		+ 50	5,499,999,851	-149	-0.00000271	
BATT. ENDPOINT	3.40	+ 20	5,499,999,557	-443	-0.00000805	
Table 7-25.	Table 7-25. Frequency Stability Measurements for UNII Band 2C (Ch. 100)					

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 112 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 112 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereor, please contact INFO@PCTESTLAB.COM.



Frequency Stability §15.407(g)

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -30°C and +50°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

OPERATING FREQUENCY:	5,745,000,000	Hz
CHANNEL:	149	
REFERENCE VOLTAGE:	3.80	VDC

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq. Dev. (Hz)	Deviation (%)
100 %	3.80	+ 20 (Ref)	5,745,000,155	155	0.00000270
100 %		- 30	5,745,000,173	173	0.00000301
100 %		- 20	5,745,000,380	380	0.00000661
100 %		- 10	5,745,000,138	138	0.00000240
100 %		0	5,744,999,878	-122	-0.00000212
100 %		+ 10	5,744,999,936	-64	-0.00000111
100 %		+ 20	5,744,999,680	-320	-0.00000557
100 %		+ 30	5,745,000,046	46	0.00000080
100 %		+ 40	5,744,999,876	-124	-0.00000216
100 %		+ 50	5,744,999,927	-73	-0.00000127
BATT. ENDPOINT	3.40	+ 20	5,744,999,994	-6	-0.00000010
Table 7-26	. Frequency S	Stability Mea	surements for UN	VII Band 3 (C	ch. 149)

Note:

Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 112 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 113 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory. Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



7.7 Radiated Spurious Emission Measurements – Above 1GHz §15.407(b) §15.205 §15.209

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in KDB 789033 D02 v01r03, and at the appropriate frequencies. All channels, modes (e.g. 802.11a, 802.11n (20MHz BW), 802.11n (40MHz BW), and 802.11ac (80MHz)), and modulations/data rates were investigated among all UNII bands. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

For transmitters operating in the 5.15-5.25 GHz and 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table 7-27 per Section 15.209.

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
Above 960.0 MHz	500	3

Table 7-27. Radiated Limits

Test Procedures Used

KDB 789033 D02 v01r03 - Section G

Test Settings

Average Measurements above 1GHz (Method AD)

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = power average (RMS)
- 5. Number of measurement points = 1001 (Number of points must be $\geq 2 \times \text{span/RBW}$)
- 6. Averaging type = power (RMS)
- 7. Sweep time = auto couple
- 8. Trace was averaged over 100 sweeps

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Deg 114 of 249		
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 114 of 248		
© 2017 PCTEST Engineering La	© 2017 PCTEST Engineering Laboratory, Inc. V 6.1					

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



Peak Measurements above 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = 120kHz
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

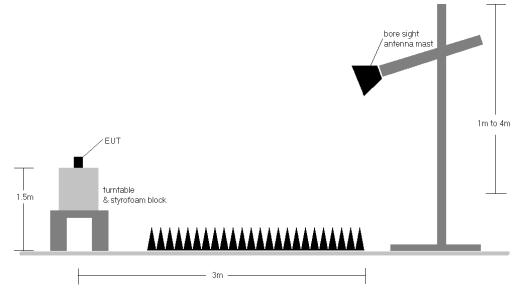


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

 All radiated spurious emissions levels were measured in a radiated test setup per the guidance of KDB 789033 D02 v01r03 Section G.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 115 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 115 of 248
© 2017 PCTEST Engineering Lal	boratory, Inc.			V 6.1 12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized



- 2. All emissions that lie in the restricted bands (denoted by a * next to the frequency) specified in §15.205 are below the limit shown in Table 7-27.
- 3. All spurious emissions lying in restricted bands specified in §15.205 are below the limit shown in Table 7-27. All spurious emissions that do not lie in a restricted band are subject to a peak limit of -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions of 68.2dBµV/m.
- 4. The antenna is manipulated through typical positions, polarity and length during the tests. The EUT is manipulated through three orthogonal planes.
- 5. This unit was tested with its standard battery.
- 6. The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter using CISPR quasi peak detector below 1GHz. Above 1 GHz, average and peak measurements were taken using linearly polarized horn antennas. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
- 7. Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- Radiated spurious emissions were investigated while operating in MIMO mode, however, it was determined that single antenna operation produced the worst case emissions. Since the emissions produced from MIMO operation were found to be more than 20dB below the limit, the MIMO emissions are not reported.
- 9. The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. Any emissions found to be within 20dB of the limit are fully investigated and the results are shown in this section. Rohde & Schwarz EMC32, Version 9.15.00 automated test software was used to perform the Radiated Spurious Emissions Pre-Scan testing.
- 10. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Sample Calculations

Determining Spurious Emissions Levels

- Field Strength Level $[dB\mu V/m]$ = Analyzer Level [dBm] + 107 + AFCL [dB/m]
- AFCL [dB/m] = Antenna Factor [dB/m] + Cable Loss [dB]
- Margin [dB] = Field Strength Level [dBμV/m] Limit [dBμV/m]

Radiated Band Edge Measurement Offset

• The amplitude offset shown in the radiated restricted band edge plots in Section 7.7 was calculated using the formula:

Offset (dB) = (Antenna Factor + Cable Loss + Attenuator) - Preamplifier Gain

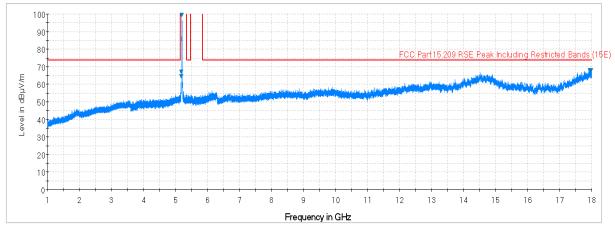
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 116 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 116 of 248	
© 2017 PCTEST Engineering Laboratory, Inc. V 6.					

12/26/2016

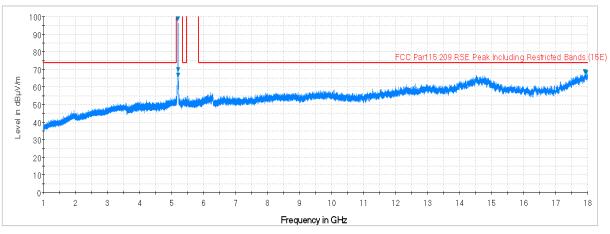
© 2015 PCTEST Engineering Laboratory. Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



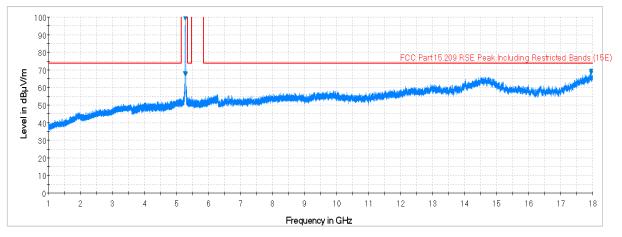
7.7.1 Antenna-1 Radiated Spurious Emission Measurements

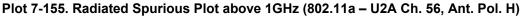


Plot 7-153. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40, Ant. Pol. H)



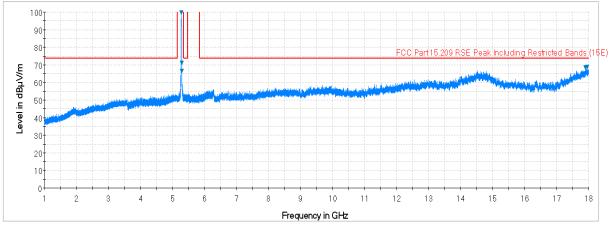
Plot 7-154. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40, Ant. Pol. V)



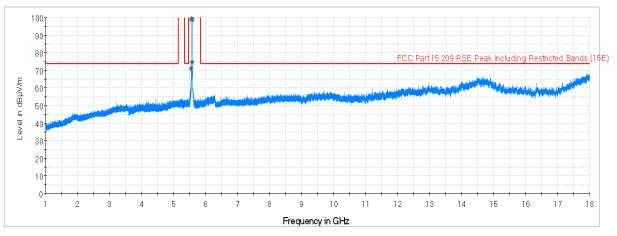


FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 117 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 117 of 248	
© 2017 PCTEST Engineering Laboratory, Inc. V 6					

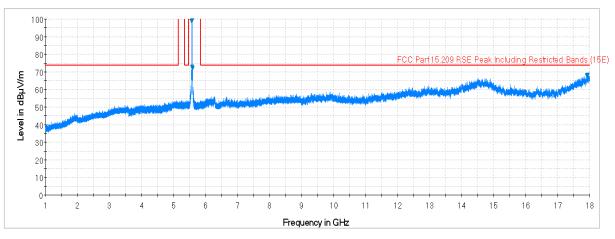








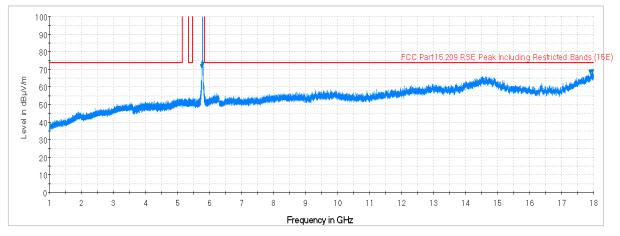
Plot 7-157. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 116, Ant. Pol. H)



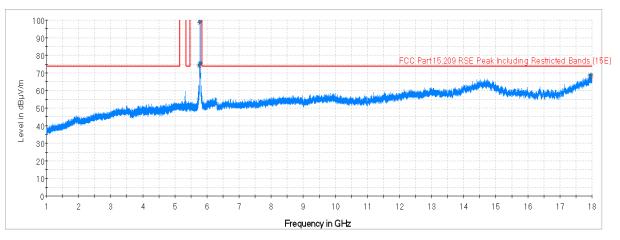
Plot 7-158. Radiated Spurious Plot above 1GHz (802.11a - U2C Ch. 116, Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 119 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 118 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				





Plot 7-159. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157, Ant. Pol. H)



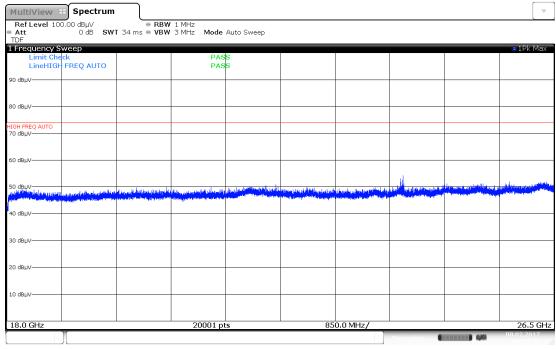
Plot 7-160. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157, Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 110 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 119 of 248
© 2017 PCTEST Engineering La	boratory. Inc.			V 6.1

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized

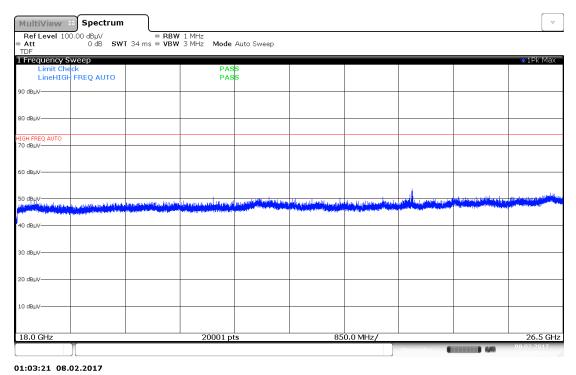


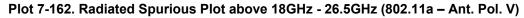
Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)









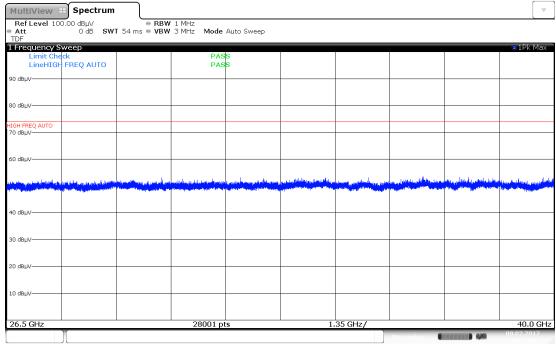


FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 049
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 120 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

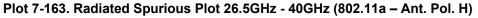
12/26/2016

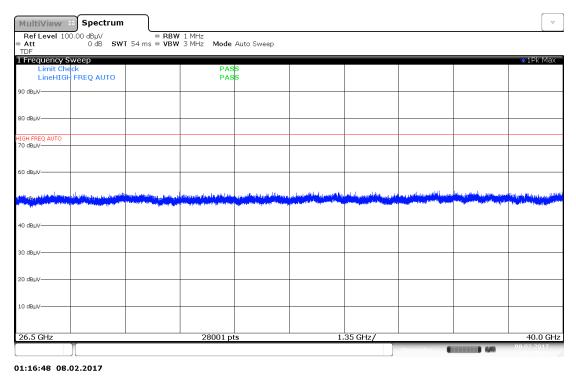


Antenna-1 Radiated Spurious Emissions Measurements (Above 18GHz)



01:12:04 08.02.2017







FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:		Dega 101 of 049
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 121 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



Antenna-1 Radiated Spurious Emission Measurements §15.247(d) §15.205 & §15.209

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	-	-	-58.86	12.28	0.00	60.42	68.20	-7.78
*	15540.00	Average	Н	-	-	-74.42	16.89	0.00	49.47	53.98	-4.51
*	15540.00	Peak	Н	-	-	-57.23	16.89	0.00	66.66	73.98	-7.32
*	20720.00	Average	Н	-	-	-70.92	8.13	-9.54	34.67	53.98	-19.31
*	20720.00	Peak	Н	-	-	-60.35	8.13	-9.54	45.24	73.98	-28.74
	25900.00	Peak	Н	-	-	-56.24	8.50	-9.54	49.72	68.20	-18.48

Table 7-28. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: **Operating Frequency:** Channel:

802.11a	
6 Mbps	
1 & 3 Meters	
5200MHz	
40	

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	н	-	-	-58.93	12.44	0.00	60.51	68.20	-7.69
*	15600.00	Average	Н	-	-	-74.00	16.99	0.00	49.99	53.98	-3.99
*	15600.00	Peak	Н	-	-	-57.75	16.99	0.00	66.24	73.98	-7.74
*	20800.00	Average	Н	-	-	-71.20	8.16	-9.54	34.41	53.98	-19.57
*	20800.00	Peak	Н	-	-	-59.20	8.16	-9.54	46.41	73.98	-27.57
	26000.00	Peak	Н	-	-	-57.16	8.52	-9.54	48.82	68.20	-19.38
	26000.00	Peak	Н	- Tal		-57.16			48.82	68.20	

Table 7-29. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 100 of 049	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 122 of 248	
© 2017 PCTEST Engineering La	boratory. Inc.			V 6.1	

ngin ring L ory,



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5240MHz
Channel:	48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	Н	-	-	-58.99	13.05	0.00	61.06	68.20	-7.14
*	15720.00	Average	Н	-	-	-73.72	16.38	0.00	49.66	53.98	-4.32
*	15720.00	Peak	Н	-	-	-57.40	16.38	0.00	65.98	73.98	-8.00
*	20960.00	Average	Н	-	-	-71.52	8.12	-9.54	34.06	53.98	-19.92
*	20960.00	Peak	Н	-	-	-59.51	8.12	-9.54	46.07	73.98	-27.91
	26200.00	Peak	н	-	-	-57.79	8.62	-9.54	48.29	68.20	-19.91

Table 7-30. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5200MHz 40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	н	-	-	-59.58	12.44	0.00	59.86	68.20	-8.34
*	15600.00	Average	Н	-	-	-73.93	16.99	0.00	50.06	53.98	-3.92
*	15600.00	Peak	н	-	-	-57.46	16.99	0.00	66.53	73.98	-7.45
*	20800.00	Average	Н	-	-	-71.34	8.16	-9.54	34.27	53.98	-19.71
*	20800.00	Peak	н	-	-	-59.39	8.16	-9.54	46.22	73.98	-27.76
	26000.00	Peak	Н	-	-	-57.19	8.52	-9.54	48.79	68.20	-19.41

Table 7-31. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 102 of 049
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 123 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5260MHz
Channel:	52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	Н	-	-	-58.54	12.46	0.00	60.92	68.20	-7.28
*	15780.00	Average	Н	-	-	-74.10	16.43	0.00	49.33	53.98	-4.65
*	15780.00	Peak	Н	-	-	-57.22	16.43	0.00	66.21	73.98	-7.77
*	21040.00	Average	Н	-	-	-71.21	8.10	-9.54	34.35	53.98	-19.63
*	21040.00	Peak	Н	-	-	-60.23	8.10	-9.54	45.33	73.98	-28.65
	26300.00	Peak	Н	-	-	-55.44	8.76	-9.54	50.78	68.20	-17.42

Table 7-32. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5280MHz 56

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	н	-	-	-59.43	12.59	0.00	60.16	68.20	-8.04
*	15840.00	Average	Н	-	-	-74.12	16.07	0.00	48.94	53.98	-5.04
*	15840.00	Peak	Н	-	-	-57.77	16.07	0.00	65.30	73.98	-8.68
*	21120.00	Average	Н	-	-	-70.93	8.09	-9.54	34.61	53.98	-19.37
*	21120.00	Peak	Н	-	-	-59.96	8.09	-9.54	45.58	73.98	-28.40
	26400.00	Peak	Н	-	-	-56.12	8.99	-9.54	50.33	68.20	-17.87

Table 7-33. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager					
Test Report S/N:	Test Dates:	EUT Type:		Degra 104 of 049					
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 124 of 248					
© 2017 PCTEST Engineering Laboratory, Inc.									

12/26/2016



Worst Case Mode:	802.11a			
Worst Case Transfer Rate:	6 Mbps			
Distance of Measurements:	1 & 3 Meters			
Operating Frequency:	5320MHz			
Channel:	64			

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	н	-	-	-70.38	12.78	0.00	49.40	53.98	-4.58
*	10640.00	Peak	н	-	-	-59.42	12.78	0.00	60.36	73.98	-13.62
*	15960.00	Average	Н	-	-	-74.11	16.21	0.00	49.10	53.98	-4.88
*	15960.00	Peak	Н	-	-	-56.94	16.21	0.00	66.27	73.98	-7.71
*	21280.00	Average	Н	-	-	-70.38	8.07	-9.54	35.15	53.98	-18.83
*	21280.00	Peak	н	-	-	-58.45	8.07	-9.54	47.08	73.98	-26.90
	26600.00	Peak	н	-	-	-47.13	-8.30	-9.54	42.03	68.20	-26.17

Table 7-34. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5260MHz 52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	н	-	-	-58.74	12.46	0.00	60.72	68.20	-7.48
*	15780.00	Average	н	-	-	-74.17	16.43	0.00	49.26	53.98	-4.72
*	15780.00	Peak	н	-	-	-57.21	16.43	0.00	66.22	73.98	-7.76
*	21040.00	Average	н	-	-	-71.31	8.10	0.00	43.79	53.98	-10.19
*	21040.00	Peak	н	-	-	-60.32	8.10	-9.54	45.24	73.98	-28.74
	26300.00	Peak	Н	-	-	-55.47	8.76	-9.54	50.75	68.20	-17.45

Table 7-35. Radiated Measurements with WCP

		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager						
Test Report S/N:	Test Dates:	EUT Type:		Dega 105 of 049						
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 125 of 248						
© 2017 PCTEST Engineering Laboratory, Inc.										

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5500MHz
Channel:	100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	i Factor I	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-70.52	12.51	0.00	48.99	53.98	-4.99
*	11000.00	Peak	Н	-	-	-59.24	12.51	0.00	60.27	73.98	-13.71
	16500.00	Peak	Н	-	-	-58.42	15.70	0.00	64.28	68.20	-3.92
	22000.00	Peak	Н	-	-	-59.67	8.35	-9.54	46.13	68.20	-22.07
	27500.00	Peak	н	-	-	-46.07	-8.93	-9.54	42.46	68.20	-25.74

Table 7-36. Rac	iated Measurements
-----------------	--------------------

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5580MHz 116

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11160.00	Average	Н	-	-	-70.31	12.68	0.00	49.37	53.98	-4.61
*	11160.00	Peak	Н	-	-	-59.46	12.68	0.00	60.22	73.98	-13.76
	16740.00	Peak	Н	-	-	-59.59	16.25	0.00	63.66	68.20	-4.54
*	22320.00	Average	Н	-	-	-70.62	8.20	-9.54	35.04	53.98	-18.94
*	22320.00	Peak	н	-	-	-60.20	8.20	-9.54	45.46	73.98	-28.52
	27900.00	Peak	н	-	-	-46.11	-9.24	-9.54	42.11	68.20	-26.09

Table 7-37. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Degra 106 of 049		
1M1701180032-05-R3.ZNF 12/27/2016 - 2/15/2017		Portable Handset		Page 126 of 248		
© 2017 PCTEST Engineering Laboratory, Inc.						

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11400.00	Average	н	-	-	-70.12	13.68	0.00	50.56	53.98	-3.42
*	11400.00	Peak	Н	-	-	-57.99	13.68	0.00	62.69	73.98	-11.29
	17100.00	Peak	н	-	-	-61.32	18.22	0.00	63.90	68.20	-4.30
*	22800.00	Average	н	-	-	-70.64	8.29	-9.54	35.10	53.98	-18.88
*	22800.00	Peak	н	-	-	-60.10	8.29	-9.54	45.64	73.98	-28.34
	28500.00	Peak	н	-	-	-45.60	-9.03	-9.54	42.83	68.20	-25.37

Table 7-38. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a 6 Mbps 1 & 3 Meters 5550MHz 100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Factor	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-70.63	12.51	0.00	48.88	53.98	-5.10
*	11000.00	Peak	Н	-	-	-59.54	12.51	0.00	59.97	73.98	-14.01
	16500.00	Peak	Н	-	-	-59.37	15.70	0.00	63.33	68.20	-4.87
	22000.00	Peak	Н	-	-	-59.70	8.35	-9.54	46.10	68.20	-22.10
	27500.00	Peak	н	-	-	-46.08	-8.93	-9.54	42.45	68.20	-25.75

Table 7-39. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Page 127 of 248		
1M1701180032-05-R3.ZNF 12/27/2016 - 2/15/2017 F		Portable Handset		Page 127 01 246		
© 2017 PCTEST Engineering Laboratory, Inc.						

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5745MHz
Channel:	149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	Н	-	-	-70.63	14.14	0.00	50.51	53.98	-3.47
*	11490.00	Peak	Н	-	-	-59.63	14.14	0.00	61.51	73.98	-12.47
	17235.00	Peak	н	-	-	-62.94	19.18	0.00	63.24	68.20	-4.96
*	22980.00	Average	н	-	-	-71.16	8.19	-9.54	34.49	53.98	-19.49
*	22980.00	Peak	н	-	-	-59.73	8.19	-9.54	45.92	73.98	-28.06
	28725.00	Peak	н	-	-	-45.39	-9.45	-9.54	42.62	68.20	-25.58

Table 7-40. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a 6 Mbps 1 & 3 Meters 5785MHz 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	i Factor I	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	н	-	-	-70.64	13.88	0.00	50.24	53.98	-3.74
*	11570.00	Peak	Н	-	-	-58.25	13.88	0.00	62.63	73.98	-11.35
	17355.00	Peak	н	-	-	-63.25	20.47	0.00	64.22	68.20	-3.98
	23140.00	Peak	Н	-	-	-59.34	8.47	-9.54	46.58	68.20	-21.62
	28925.00	Peak	Н	-	-	-44.99	-9.71	-9.54	42.76	68.20	-25.44

Table 7-41. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Page 128 of 248		
1M1701180032-05-R3.ZNF 12/27/2016 - 2/15/2017		Portable Handset		Page 120 01 240		
© 2017 PCTEST Engineering Laboratory, Inc.						

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	-	-	-70.35	14.22	0.00	50.87	53.98	-3.11
*	11650.00	Peak	Н	-	-	-58.95	14.22	0.00	62.27	73.98	-11.71
	17475.00	Peak	Н	-	-	-63.96	21.94	0.00	64.98	68.20	-3.22
	23300.00	Peak	Н	-	-	-59.95	8.60	-9.54	46.11	68.20	-22.09
	29125.00	Peak	н	-	-	-44.09	-9.93	-9.54	43.44	68.20	-24.76

Table 7-42. Radia	ted Measurements
-------------------	------------------

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5825MHz 165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	-	-	-70.94	14.22	0.00	50.28	53.98	-3.70
*	11650.00	Peak	Н	-	-	-58.87	14.22	0.00	62.35	73.98	-11.63
	17475.00	Peak	Н	-	-	-63.97	21.94	0.00	64.97	68.20	-3.23
*	23300.00	Average	н	-	-	-60.11	8.60	-9.54	45.95	53.98	-8.03
*	29125.00	Peak	н	-	-	-44.27	-9.93	-9.54	43.26	73.98	-30.72

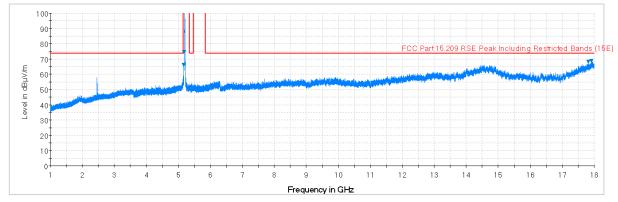
Table 7-43. Radiated Measurements with WCP

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 129 of 248	
© 2017 PCTEST Engineering La	V 6.1				

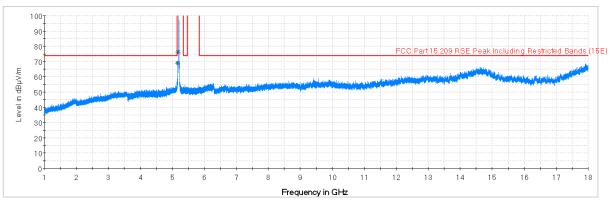
12/26/2016



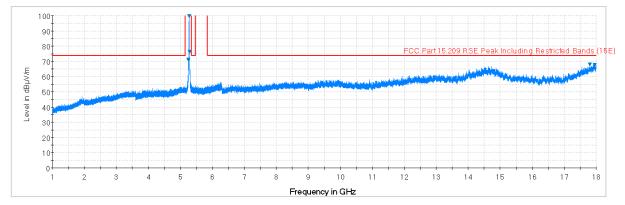




Plot 7-165. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40, Ant. Pol. H)



Plot 7-166. Radiated Spurious Plot above 1GHz (802.11a – U1 Ch. 40, Ant. Pol. V)

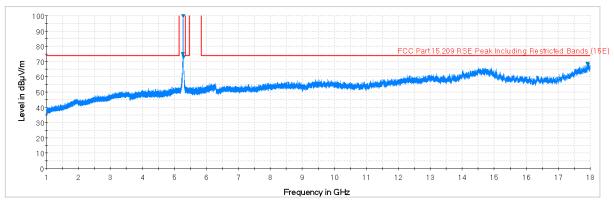


Plot 7-167. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56, Ant. Pol. H)

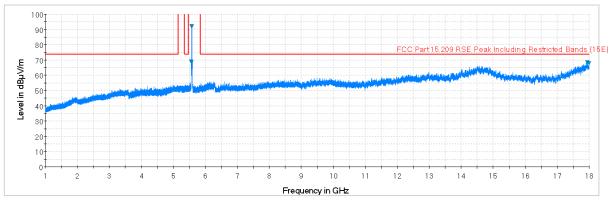
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 120 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 130 of 248	
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1	

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, f

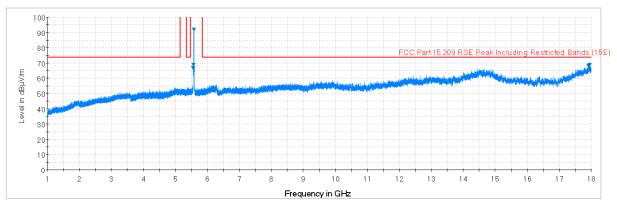




Plot 7-168. Radiated Spurious Plot above 1GHz (802.11a – U2A Ch. 56, Ant. Pol. V)



Plot 7-169. Radiated Spurious Plot above 1GHz (802.11a - U2C Ch. 116, Ant. Pol. H)

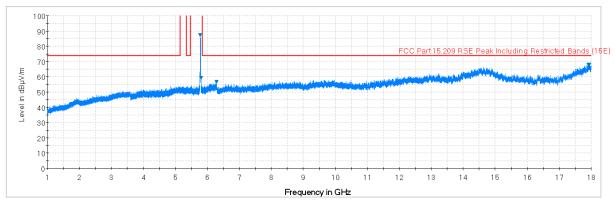


Plot 7-170. Radiated Spurious Plot above 1GHz (802.11a – U2C Ch. 116, Ant. Pol. V)

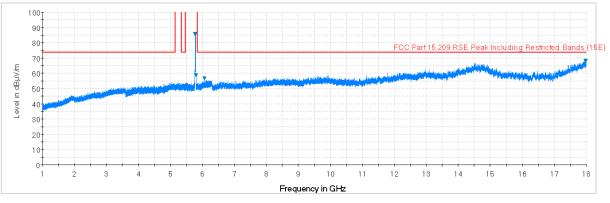
		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 121 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 131 of 248	
© 2017 PCTEST Engineering La	boratory. Inc.	•		V 6.1	

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili





Plot 7-171. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157, Ant. Pol. H)



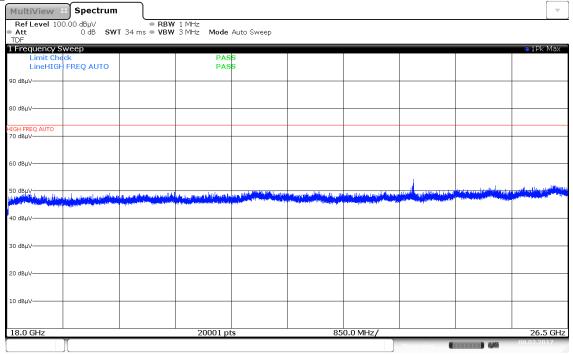
Plot 7-172. Radiated Spurious Plot above 1GHz (802.11a - U3 Ch. 157, Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 122 of 249			
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 132 of 248			
© 2017 PCTEST Engineering Laboratory, Inc.							

^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili

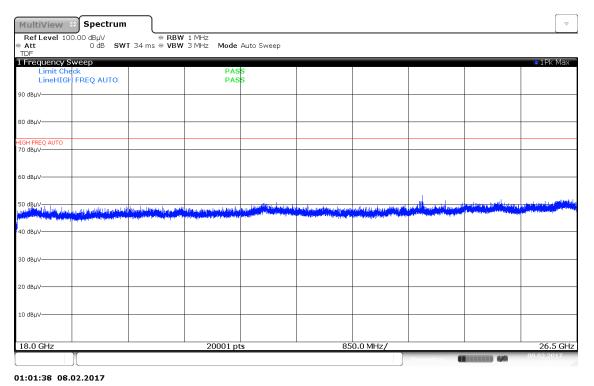


Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz)



00:59:58 08.02.2017





Plot 7-174. Radiated Spurious Plot above 18GHz - 26.5GHz (802.11a – Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Demo 122 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 133 of 248	
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1	

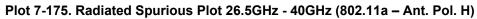
12/26/2016



Antenna-2 Radiated Spurious Emissions Measurements (Above 18GHz) §15.209

MultiView 🕀	Spectrum								∇
Ref Level 100.0 Att TDF		● RBW 54 ms ● VBW	1 MHz 3 MHz Mode	Auto Sweep					
1 Frequency Swe	ер								●1Pk Max
Limit Check			PAS						
LineHIGH FF	REQ AUTO		PAS	5					
90 dBµV									
80 dBµV									
HIGH FREQ AUTO 70 dBµV									
60 dBµV									
with the particulation of a second	and an	the mathematic leaves an	alidadeas para antisadada di	denormality of the Parent	ويعطفه والمراجع والمقاطع والمعروب	ومراوي والمقتر الإليانية	مراده بالمالية والمراجعة	الماجرية الأعدان والمتعادي وسعا	anti-managan da bias fa
all the second	and the second	and the second second		A transfer of the second s			- Hereiter		Contraction of the second second
40 dBµV									
30 dBµV									
20 dBµV									
10 dBµV									
26.5 GHz			28001 pt	s	1.	.35 GHz/	1	I	40.0 GHz
							Measuring		08.02.2017

01:14:32 08.02.2017



Ref Level 100.00 dBµV	● RB₩ 1 MHz		
DF	ms ● VBW 3 MHz Mode Auto Sweep		
Frequency Sweep	B + 90		●1Pk Ma>
Limit Check LineHIGH FREQ AUTO	PASS PASS		
) dBµV			
I dBµV			
SH FREQ AUTO			
dBµV			
and the second	ille data ya yang diki ya ya kasa ng kala ya yang ng n	ا و محل العبر الدول و روسال (بر و روسال و روسال معرور). محمد العبر الدول و روسال (بر و روسال (بر و ماليس و روسال معرور). محمد المروسية معرور و محمد و روسال معرور و ماليس و روسال و روسال (بر و روسال المروسية معامل و روسال و روسال و	والمتعاوية والمحالفة ومتحومة والمحالي أستامهم والتعلق ويتعال
	Here is a second s		
dBµV			
dBµV			
) dBµV			
6.5 GHz	28001 pts	1.35 GHz/	40.0 GF
			08 02 2017

Plot 7-176. Radiated Spurious Plot above 26.5GHz - 40GHz (802.11a – Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 124 of 249		
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 134 of 248		
© 2017 PCTEST Engineering Laboratory, Inc.						

12/26/2016



Antenna-2 Radiated Spurious Emission Measurements §15.247(d) §15.205 & §15.209

Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5180MHz
Channel:	36

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10360.00	Peak	Н	-	-	-58.87	12.28	0.00	60.41	68.20	-7.79
*	15540.00	Average	Н	-	-	-74.78	16.89	0.00	49.11	53.98	-4.87
*	15540.00	Peak	Н	-	-	-57.96	16.89	0.00	65.93	73.98	-8.05
*	20720.00	Average	Н	-	-	-70.96	8.13	-9.54	34.63	53.98	-19.35
*	20720.00	Peak	Н	-	-	-60.47	8.13	-9.54	45.12	73.98	-28.86
	25900.00	Peak	Н	-	-	-56.38	8.50	-9.54	49.58	68.20	-18.62

Table 7-44. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a 6 Mbps 1 & 3 Meters 5200MHz 40

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10400.00	Peak	н	-	-	-58.49	12.44	0.00	60.95	68.20	-7.25
*	15600.00	Average	Н	-	-	-74.01	16.99	0.00	49.98	53.98	-4.00
*	15600.00	Peak	Н	-	-	-57.51	16.99	0.00	66.48	73.98	-7.50
*	20800.00	Average	н	-	-	-71.20	8.16	-9.54	34.41	53.98	-19.57
*	20800.00	Peak	Н	-	-	-59.20	8.16	-9.54	46.41	73.98	-27.57
	26000.00	Peak	Н	-	-	-58.44	8.52	-9.54	47.54	68.20	-20.66
				Tal	nlo 7-45 R	adiated M	loacurom	onte			

Table 7-45. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 125 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 135 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5240MHz
Channel:	48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	Н	-	-	-59.55	13.05	0.00	60.50	68.20	-7.70
*	15720.00	Average	Н	-	-	-74.17	16.38	0.00	49.21	53.98	-4.77
*	15720.00	Peak	Н	-	-	-57.37	16.38	0.00	66.01	73.98	-7.97
*	20960.00	Average	Н	-	-	-71.64	8.12	-9.54	33.94	53.98	-20.04
*	20960.00	Peak	Н	-	-	-59.57	8.12	-9.54	46.01	73.98	-27.97
	26200.00	Peak	н	-	-	-57.67	8.62	-9.54	48.41	68.20	-19.79

Table 7-46. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5240MHz 48

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10480.00	Peak	н	-	-	-59.28	13.05	0.00	60.77	68.20	-7.43
*	15720.00	Average	Н	-	-	-73.80	16.38	0.00	49.58	53.98	-4.40
*	15720.00	Peak	н	-	-	-56.44	16.38	0.00	66.94	73.98	-7.04
*	20960.00	Average	Н	-	-	-71.54	8.12	-9.54	34.04	53.98	-19.94
*	20960.00	Peak	н	-	-	-59.52	8.12	-9.54	46.06	73.98	-27.92
	26200.00	Peak	н	-	-	-57.81	8.62	-9.54	48.27	68.20	-19.93

Table 7-47. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 126 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 136 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5260MHz
Channel:	52

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10520.00	Peak	Н	-	-	-58.21	12.46	0.00	61.25	68.20	-6.95
*	15780.00	Average	Н	-	-	-74.33	16.43	0.00	49.10	53.98	-4.88
*	15780.00	Peak	Н	-	-	-57.60	16.43	0.00	65.83	73.98	-8.15
*	21040.00	Average	Н	-	-	-70.96	8.10	-9.54	34.60	53.98	-19.38
*	21040.00	Peak	Н	-	-	-59.96	8.10	-9.54	45.60	73.98	-28.38
	26300.00	Peak	Н	-	-	-56.04	8.76	-9.54	50.18	68.20	-18.02

Table 7-48. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5280MHz 56

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]		Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
	10560.00	Peak	Н	-	-	-58.32	12.59	0.00	61.27	68.20	-6.93
*	15840.00	Average	Н	-	-	-74.02	16.07	0.00	49.05	53.98	-4.93
*	15840.00	Peak	Н	-	-	-57.50	16.07	0.00	65.57	73.98	-8.41
*	21120.00	Average	Н	-	-	-70.98	8.09	-9.54	34.56	53.98	-19.42
*	21120.00	Peak	н	-	-	-60.07	8.09	-9.54	45.47	73.98	-28.51
	26400.00	Peak	Н	-	-	-55.97	8.99	-9.54	50.48	68.20	-17.72

Table 7-49. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 137 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 137 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



802.11a
6 Mbps
1 & 3 Meters
5320MHz
64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	н	-	-	-70.63	12.78	0.00	49.15	53.98	-4.83
*	10640.00	Peak	Н	-	-	-58.74	12.78	0.00	61.04	73.98	-12.94
*	15960.00	Average	н	-	-	-74.35	16.21	0.00	48.86	53.98	-5.12
*	15960.00	Peak	н	-	-	-57.61	16.21	0.00	65.60	73.98	-8.38
*	21280.00	Average	н	-	-	-70.46	8.07	-9.54	35.07	53.98	-18.91
*	21280.00	Peak	н	-	-	-58.44	8.07	-9.54	47.09	73.98	-26.89
	26600.00	Peak	Н	-	-	-47.25	-8.30	-9.54	41.91	68.20	-26.29
	20000.00	1 out		Та	olo 7-50 P	-				00.20	

Table 7-50. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a
6 Mbps
1 & 3 Meters
6320MHz
64

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	10640.00	Average	н	-	-	-70.43	12.78	0.00	49.35	53.98	-4.63
*	10640.00	Peak	Н	-	-	-59.04	12.78	0.00	60.74	73.98	-13.24
*	15960.00	Average	Н	-	-	-74.18	16.21	0.00	49.03	53.98	-4.95
*	15960.00	Peak	Н	-	-	-57.76	16.21	0.00	65.45	73.98	-8.53
*	21280.00	Average	Н	-	-	-70.51	8.07	-9.54	35.02	53.98	-18.96
*	21280.00	Peak	Н	-	-	-58.28	8.07	-9.54	47.25	73.98	-26.73
	26600.00	Peak	Н	-	-	-47.13	-8.30	-9.54	42.03	68.20	-26.17

Table 7-51. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕞 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 138 of 248	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset			
© 2017 PCTEST Engineering La		V 6.1			

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5500MHz
Channel:	100

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	i Factor I	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11000.00	Average	Н	-	-	-70.64	12.51	0.00	48.87	53.98	-5.11
*	11000.00	Peak	Н	-	-	-57.93	12.51	0.00	61.58	73.98	-12.40
	16500.00	Peak	Н	-	-	-59.20	15.70	0.00	63.50	68.20	-4.70
	22000.00	Peak	Н	-	-	-59.72	8.35	-9.54	46.08	68.20	-22.12
	27500.00	Peak	н	-	-	-46.15	-8.93	-9.54	42.38	68.20	-25.82

Table 7-52. Radiated N	leasurements
------------------------	--------------

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a
6 Mbps
1 & 3 Meters
5580MHz
116

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11160.00	Average	Н	-	-	-70.61	12.68	0.00	49.07	53.98	-4.91
*	11160.00	Peak	Н	-	-	-59.50	12.68	0.00	60.18	73.98	-13.80
	16740.00	Peak	Н	-	-	-60.10	16.25	0.00	63.15	68.20	-5.05
*	22320.00	Average	Н	-	-	-70.71	8.20	-9.54	34.95	53.98	-19.03
*	22320.00	Peak	Н	-	-	-60.09	8.20	-9.54	45.57	73.98	-28.41
	27900.00	Peak	Н	-	-	-46.13	-9.24	-9.54	42.09	68.20	-26.11

Table 7-53. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Page 139 of 248			
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 139 01 246			
© 2017 PCTEST Engineering Laboratory, Inc.							

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5720MHz
Channel:	144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11400.00	Average	Н	-	-	-70.23	13.68	0.00	50.45	53.98	-3.53
*	11400.00	Peak	Н	-	-	-58.99	13.68	0.00	61.69	73.98	-12.29
	17100.00	Peak	н	-	-	-60.74	18.22	0.00	64.48	68.20	-3.72
*	22800.00	Average	н	-	-	-70.61	8.29	-9.54	35.13	53.98	-18.85
*	22800.00	Peak	н	-	-	-60.27	8.29	-9.54	45.47	73.98	-28.51
	28500.00	Peak	н	-	-	-45.64	-9.03	-9.54	42.79	68.20	-25.41

Table 7-54. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5720MHz 144

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11400.00	Average	н	-	-	-70.06	13.68	0.00	50.62	53.98	-3.36
*	11400.00	Peak	Н	-	-	-58.62	13.68	0.00	62.06	73.98	-11.92
	17100.00	Peak	Н	-	-	-60.37	18.22	0.00	64.85	68.20	-3.35
*	22800.00	Average	Н	-	-	-70.70	8.29	-9.54	35.04	53.98	-18.94
*	22800.00	Peak	Н	-	-	-60.30	8.29	-9.54	45.44	73.98	-28.54
	28500.00	Peak	Н	-	-	-45.83	-9.03	-9.54	42.60	68.20	-25.60

Table 7-55. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 140 of 249			
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 140 of 248			
© 2017 PCTEST Engineering Laboratory, Inc.							

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5745MHz
Channel:	149

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11490.00	Average	Н	-	-	-70.53	14.14	0.00	50.61	53.98	-3.37
*	11490.00	Peak	Н	-	-	-59.48	14.14	0.00	61.66	73.98	-12.32
	17235.00	Peak	Н	-	-	-63.26	19.18	0.00	62.92	68.20	-5.28
*	22980.00	Average	Н	-	-	-71.15	8.19	-9.54	34.50	53.98	-19.48
*	22980.00	Peak	Н	-	-	-59.84	8.19	-9.54	45.81	73.98	-28.17
	28725.00	Peak	Н	-	-	-45.44	-9.45	-9.54	42.57	68.20	-25.63

Table 7-56. Radiated Measurements

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel: 802.11a 6 Mbps 1 & 3 Meters 5785MHz 157

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11570.00	Average	Н	-	-	-70.76	13.88	0.00	50.12	53.98	-3.86
*	11570.00	Peak	Н	-	-	-59.38	13.88	0.00	61.50	73.98	-12.48
	17355.00	Peak	Н	-	-	-63.71	20.47	0.00	63.76	68.20	-4.44
	23140.00	Peak	Н	-	-	-59.41	8.47	-9.54	46.51	68.20	-21.69
	28925.00	Peak	Н	-	-	-45.07	-9.71	-9.54	42.68	68.20	-25.52

Table 7-57. Radiated Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 141 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 141 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



Worst Case Mode:	802.11a
Worst Case Transfer Rate:	6 Mbps
Distance of Measurements:	1 & 3 Meters
Operating Frequency:	5825MHz
Channel:	165

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	-	-	-70.87	14.22	0.00	50.35	53.98	-3.63
*	11650.00	Peak	Н	-	-	-59.52	14.22	0.00	61.70	73.98	-12.28
	17475.00	Peak	Н	-	-	-63.76	21.94	0.00	65.18	68.20	-3.02
	23300.00	Peak	Н	-	-	-59.86	8.60	-9.54	46.20	68.20	-22.00
	29125.00	Peak	н	-	-	-44.15	-9.93	-9.54	43.38	68.20	-24.82

Table	7-58.	Radiated	Measurements
-------	-------	----------	--------------

Worst Case Mode: Worst Case Transfer Rate: Distance of Measurements: Operating Frequency: Channel:

802.11a	
6 Mbps	
1 & 3 Meters	
5785MHz	
157	

	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Distance Correction Factor [dB]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	11650.00	Average	Н	-	-	-70.43	14.22	0.00	50.79	53.98	-3.19
*	11650.00	Peak	Н	-	-	-59.06	14.22	0.00	62.16	73.98	-11.82
	17475.00	Peak	н	-	-	-63.75	21.94	0.00	65.19	68.20	-3.01
	23300.00	Peak	Н	-	-	-59.88	8.60	-9.54	46.18	68.20	-22.02
	29125.00	Peak	Н	-	-	-44.33	-9.93	-9.54	43.20	68.20	-25.00

Table 7-59. Radiated Measurements with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 142 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 142 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

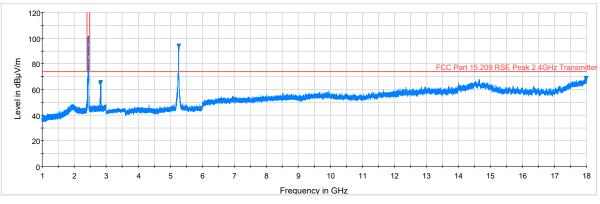
12/26/2016



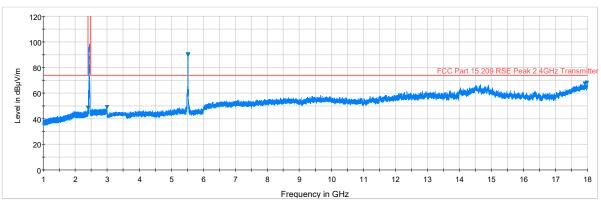
7.7.3 Simultaneous Tx Radiated Spurious Emissions Measurements §15.247(d) §15.205 & §15.209

Description	2.4 GHz Emission	5 GHz Emission
Antenna	1	2
Channel	11	52
Operating Frequency(MHz)	2462	5260
Data Rate (Mbps)	1	6
Mode	802.11b	802.11a

Table 7-60. Simultaneous Transmission Config-1



Plot 7-177. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz, Ant. Pol. H)



Plot 7-178. Radiated Spurious Plot above 1GHz (2.4GHz – 5GHz, Ant. Pol. V)

Note: The spurious emission at approximately 2480MHz in Plot 7-177 was investigated and found to be ambient noise.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 142 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 143 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

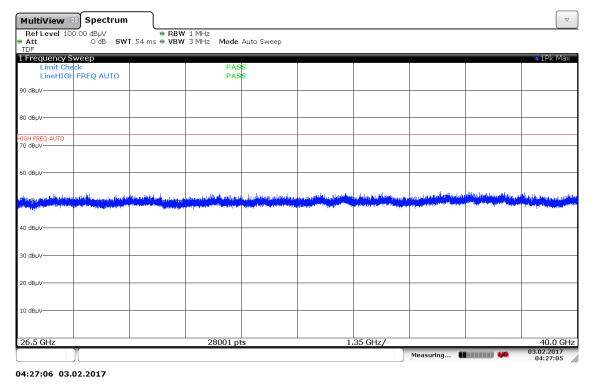
© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili



MultiView 🗄	J -								▽
RefLevel 100 Att DF	0.00 dBµV 0 dB SW 1	● RBW T 34 ms ● VBW	1 MHz 3 MHz Mode	Auto Sweep					
Frequency Sv	weep								●1Pk Max
Limit Cheo	ck		PAS						
LineHIGH	FREQ AUTO		PAS	5					
0 dBµV									
0 dBµV									
GH FREQ AUTO 0 dBµV									
o dBµv									
o deuv		والأفريس والقطيلية فكالبروا	a se a tra a	. Inditionalist	and the stability of the state	the stand out of the state		and the state of the second	والمطالح الرقان والمعادلة الرو
	The last factors of solid at the bound of the solid		and the second	and party and the second second second	and the subscript of the state of the state	and the property of the party o	and the start all the second starts	a and a second state of the second state of th	and the second second
0 dBµV									
0 dBuV									
-									
0 dBµV									
0 dBµV									
o dopv			1						
o abpv									

04:04:04 03.02.2017







FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 144 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 144 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

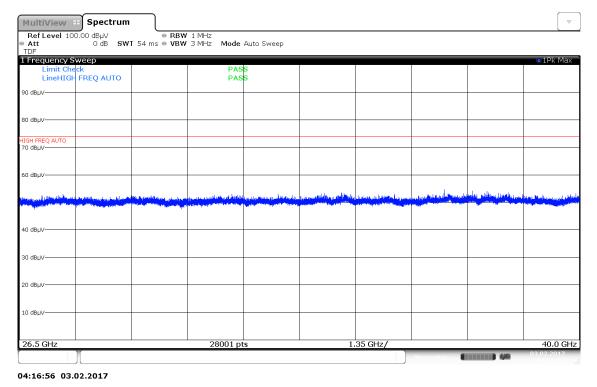
12/26/2016



	pectrum	• RBW 1 MHz						▽
Ref Level 100.00 Att	авµv OdB SWT 34m s	 RBW 1 MHz VBW 3 MHz Mode 	Auto Sweep					
TDF	_							
Frequency Swee	þ	PA	ss					●1Pk Max
LineHIGH FRE	Q AUTO	PA						
0 dBµV								
0 dBµV								
GH FREQ AUTO 0 dBµV								
0 dBµV								
						d.		
	فالظلاطية وحدرية ليشاطين والمتعادا	here a birth to birth to an draw with a se	Land to Part & Laborated Day	والمرازلة والمحاطية والمحادة	والمألم المتعنين المرادية لرابي والاروالة	and glanesarius ar	dineri et dirette t	
and the second se	and the second state of th	line and a solution of the second	the other at the little of the little of the second state	And the second	Market Aller and the second second	and a state of the part of the		
0 dBµV								
0 dBµV								
0 dBµV								
0 dBµV								
8.0 GHz		20001 g			0.0 MHz/			26.5 GH

04:11:51 03.02.2017







FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 145 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset	Page 145 o	
© 2017 PCTEST Engineering La	boratory, Inc.	·		V 6.1

12/26/2016



	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	3677.00	Average	н	-	-	-69.95	-1.81	35.24	53.98	-18.74
*	3677.00	Peak	Н	-	-	-58.14	-1.81	47.05	73.98	-26.93
	6736.00	Peak	Н	-	-	-58.72	10.20	58.48	68.20	-9.72
	8559.00	Peak	Н	-	-	-59.89	12.49	59.60	68.20	-8.60
	9795.00	Peak	Н	-	-	-58.76	12.01	60.25	68.20	-7.95
*	11618.00	Average	Н	-	-	-72.47	14.27	48.80	53.98	-5.18
*	11618.00	Peak	Н	-	-	-59.49	14.27	61.78	73.98	-12.20
	14667.00	Peak	Н	-	-	-64.68	22.54	64.86	68.20	-3.34
*	17736.00	Average	н	-	-	-79.62	23.39	50.77	53.98	-3.21
*	17736.00	Peak	н	-	-	-60.37	23.39	70.02	73.98	-3.96

Table 7-61. Radiated Measurements (ANT1 2.4GHz – ANT2 5GHz)

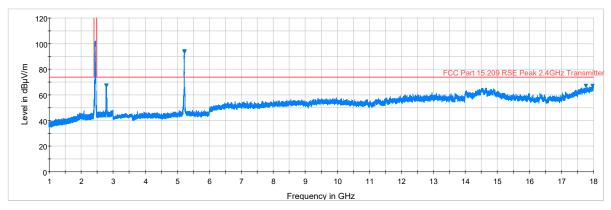
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 146 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 146 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016

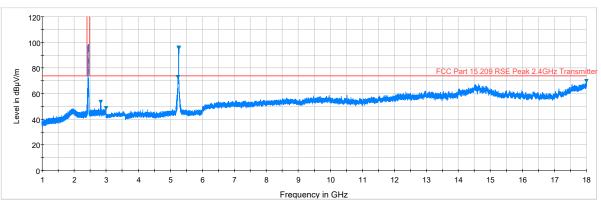


Description	5 GHz Emission	2.4 GHz Emission
Antenna	1	2
Channel	52	11
Operating Frequency(MHz)	5260	2462
Data Rate (Mbps)	6	1
Mode	802.11a	802.11b

 Table 7-62. Simultaneous Transmission Config-2



Plot 7-183. Radiated Spurious Plot above 1GHz (5GHz - 2.4 GHz, Ant. Pol. H)



Plot 7-184. Radiated Spurious Plot above 1GHz (5GHz – 2.4 GHz, Ant. Pol. V)

Note: The spurious emission at approximately 2480MHz in Plot 7-183 was investigated and found to be ambient noise.

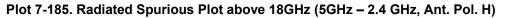
FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 147 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 147 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

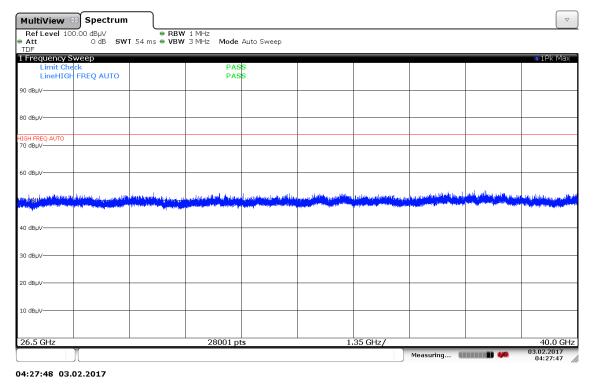
12/26/2016



Att TDF	odBµV OdB SWT 34 m s ● N	/BW 3 MHz Mode Au	to Sweep			
Frequency Swee	ep	DACE				●1Pk Ma×
LineHIGH FR	EQ AUTO	PASS PASS				
0 dBµV						
) dBµV						
GH FREQ AUTO						
) dBµV						
						I
(dBµY	enter alle findet en en en et beste konstruktion alle die beste en	ومنبط المراجع التاليل وراجع الألفاني والعلم الت	Lucio de la coltra de antes de constal de la constal de	and the Mederic Addition	in part allow the heaters	
and the surface states	and the second	head birth a stand of the stand	and the second	ىرىنى بىرىكىنىغا بىلۇمۇپىيىغۇ <mark>لىر</mark> بىرىغا قىرىيەر.		
I dBµV						
dBµV						
) dBµV						

04:07:40 03.02.2017







FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 148 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset	able Handset	
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

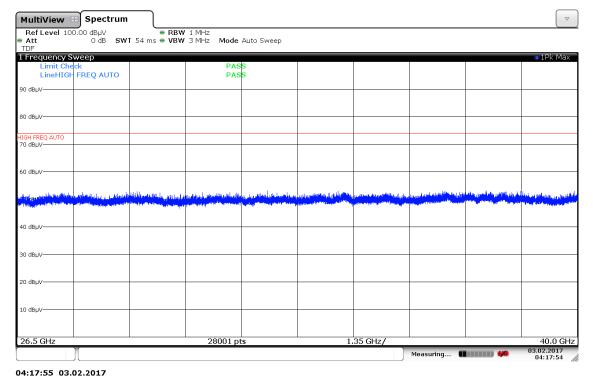
12/26/2016



Att	00 dBµV 0 dB SWT	● RBW 34 ms ● VBW	1 MHz 3 MHz Mode	Auto Sweep					
DF Frequency Sw	ioon								●1Pk Ma>
Limit Check	< eep		PAS	S					
LineHIGH F			PAS						
) dBµV									
) dBµV									
GH FREQ AUTO									
) dBµV									
							al .		
			11.1	and the second second		at a state state of	and the many strength of the second	And the second states of the s	
(10800 all half a data a	والمترقفة فيريع المرقف ومريدا	فللتم عرف كالالألمانية	محطقا بالنقاء فيتقيفون والتأسط	Parts of the second second second	احرار المعاملة أتتعام المراجعات	hallout an data di Malari	In the second	and the particular property in the forest statements of	and in the target and so that the
				in a state of the second s	ining of provident of the second s Second second				
) dBµV		n an an Anna Malan (na bha an Anna an Anna Anna An Anna Anna Anna		je do sta in indiana provinsi provinsi provinsi provinsi Provinsi provinsi provinsi provinsi provinsi provinsi Provinsi provinsi provinsi provinsi provinsi provinsi provinsi	in to a first a state of the st		(provide in the provide state of the state o		and the foreign process of the Police
South States and Street and Street		n, ang fan di fanilisi ang ang ang ang di kang ang ang ang ang ang ang ang ang ang	n e della so la tra fond de la della della sona Managementa e presidente della sona de la della della sona		inde aller i die statisticalite aller in die generation of the support in the statistical independent of the support of the support of the support of the support of the		in the second		
South States and an advantage of the	i an shina a s	ng ang Ang Mill (Mille Lange yang Ang Ang Ing pang panang katang kang kang kang katang Ing pang pang katang kang kang kang kang kang kang kang k							
i dBμV	a an a bhir an a tha	n ann far far fall an tha ann an t							
i dBμV		a oo ahaa Mijata ka ka ay aa aa ahaa gagaa ya ahaan							
dBµV		a oo ahaa ku							
а dBµV									
dBµV									

04:13:09 03.02.2017







FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 149 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 149 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



	Frequency [MHz]	Detector	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	Limit [dBµV/m]	Margin [dB]
*	3677.00	Average	Н	-	-	-69.96	-1.81	35.23	53.98	-18.75
*	3677.00	Peak	Н	-	-	-60.60	-1.81	44.59	73.98	-29.39
	6736.00	Peak	Н	-	-	-59.94	10.20	57.26	68.20	-10.94
	8559.00	Peak	Н	-	-	-60.12	12.49	59.37	68.20	-8.83
	9795.00	Peak	Н	-	-	-58.15	12.01	60.86	68.20	-7.34
*	11618.00	Average	Н	-	-	-72.37	14.27	48.90	53.98	-5.08
*	11618.00	Peak	Н	-	-	-59.51	14.27	61.76	73.98	-12.22
	14667.00	Peak	Н	-	-	-64.96	22.54	64.58	68.20	-3.62
*	17736.00	Average	Н	-	-	-79.65	23.39	50.74	53.98	-3.24
*	17736.00	Peak	Н	-	-	-60.89	23.39	69.50	73.98	-4.48

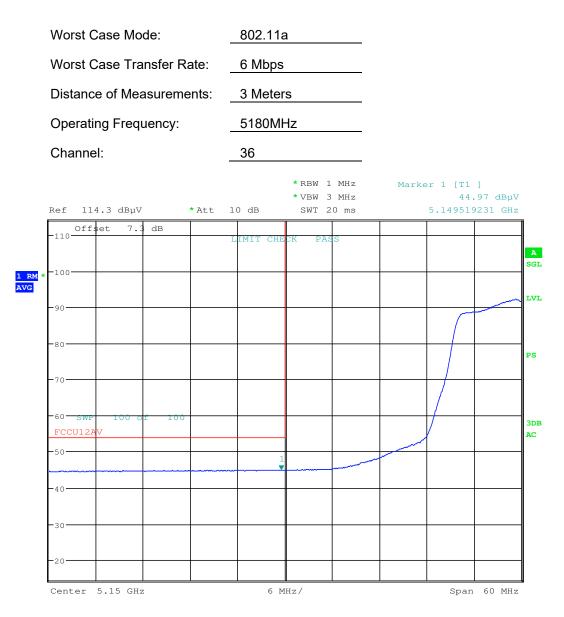
Table 7-63. Radiated Measurements (ANT1 5GHz – ANT2 2.4GHz)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 150 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 150 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016



7.7.4 Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209



Date: 25.JAN.2017 20:08:11

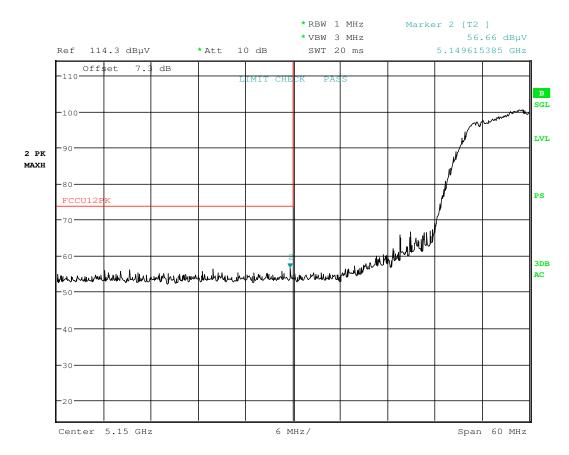
Plot 7-189. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Degra 151 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 151 of 248	
© 2017 PCTEST Engineering Laboratory, Inc. V 6.					

12/26/2016



Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209



Date: 25.JAN.2017 20:08:22

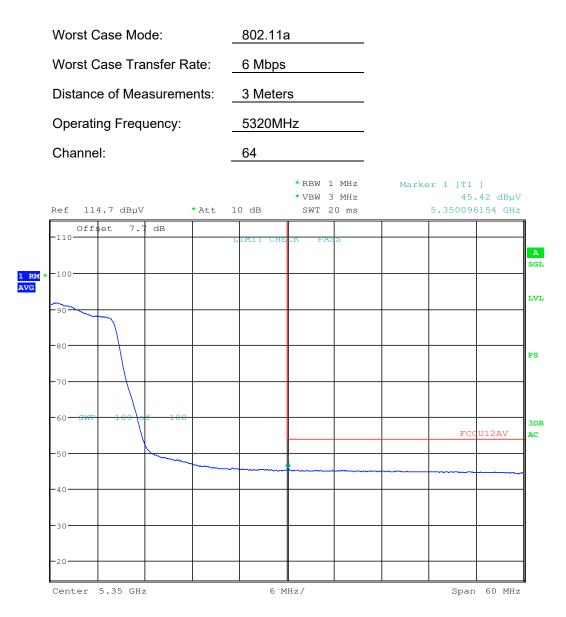
Plot 7-190. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 152 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset	Pag	Page 152 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016



Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209



Date: 25.JAN.2017 20:18:19

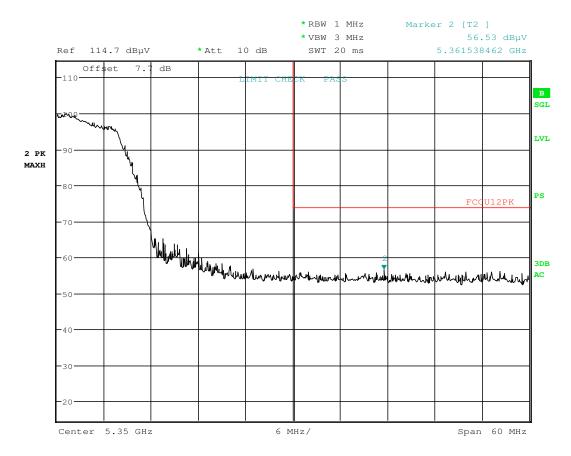
Plot 7-191. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Degra 152 of 249	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 153 of 248	
© 2017 PCTEST Engineering Laboratory, Inc. V 6					

12/26/2016



Antenna-1 Radiated Band Edge Measurements (20MHz BW) §15.407(b.1)(b.2) §15.205 §15.209



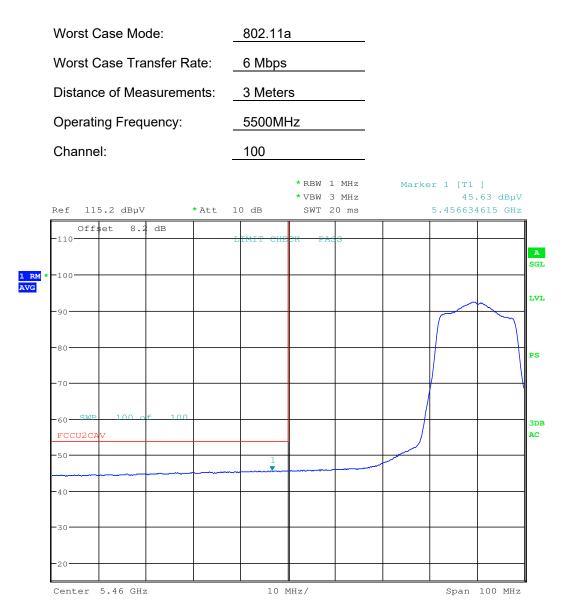
Date: 25.JAN.2017 20:18:29



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 154 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 154 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016





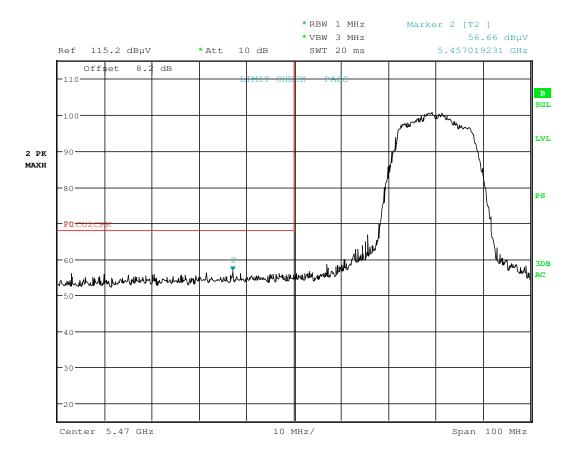
Date: 25.JAN.2017 20:40:14

Plot 7-193. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 155 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 155 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





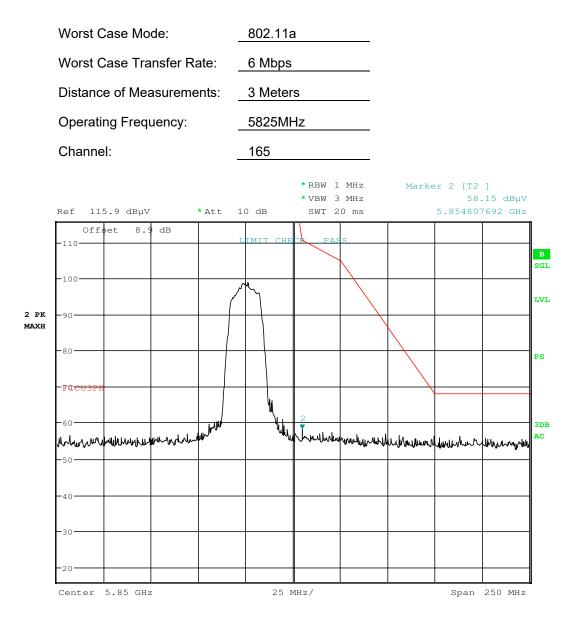
Date: 25.JAN.2017 20:40:33



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg a 156 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 156 of 248
2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





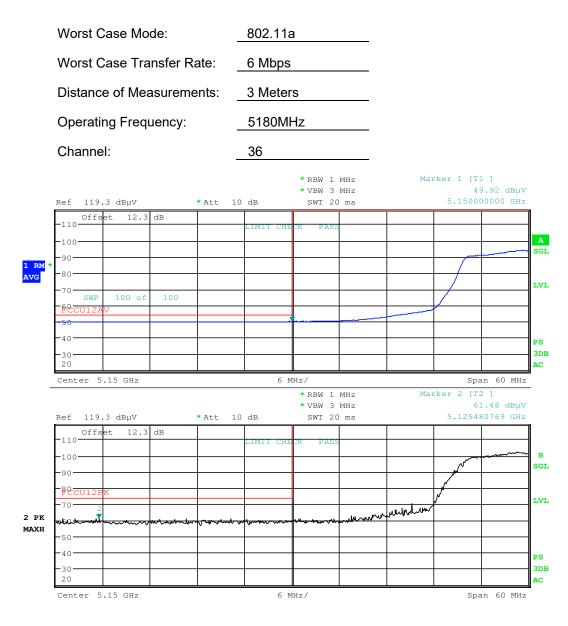
Date: 25.JAN.2017 20:51:49

Plot 7-195. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 157 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 157 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





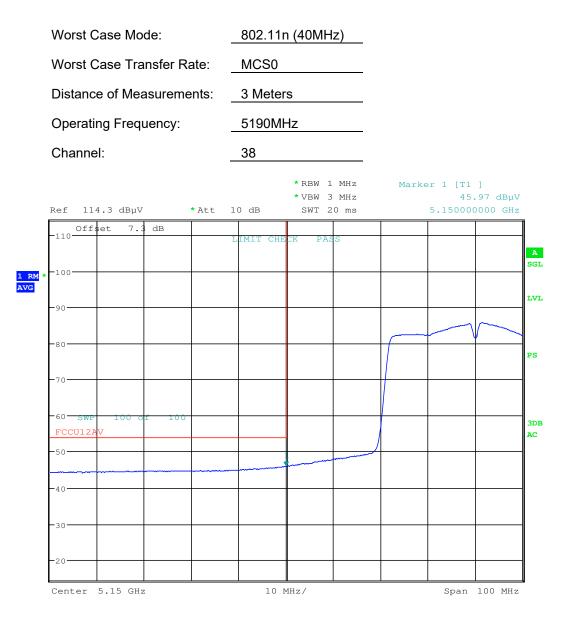
Date: 5.JAN.2017 23:46:51

Plot 7-196. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 159 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 158 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





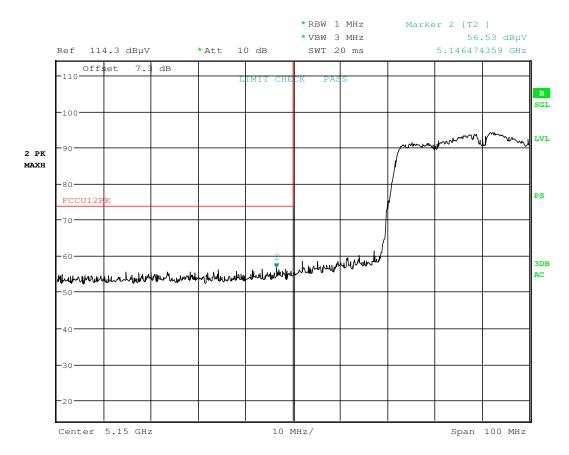
Date: 25.JAN.2017 20:10:14

Plot 7-197. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 150 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 159 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





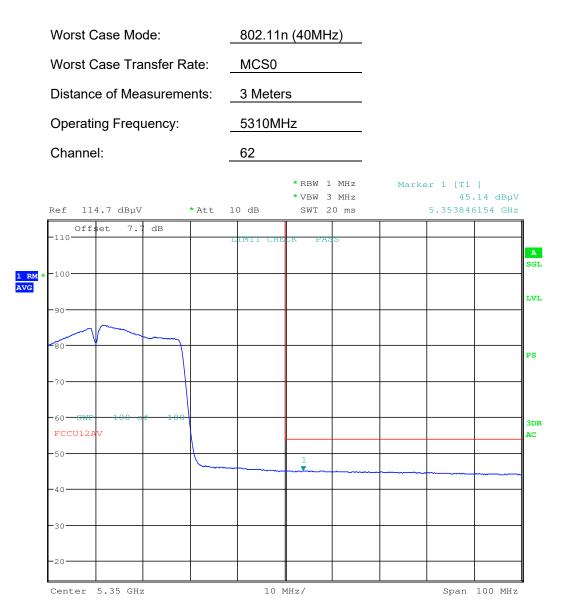
Date: 25.JAN.2017 20:09:31

Plot 7-198. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 160 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 160 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





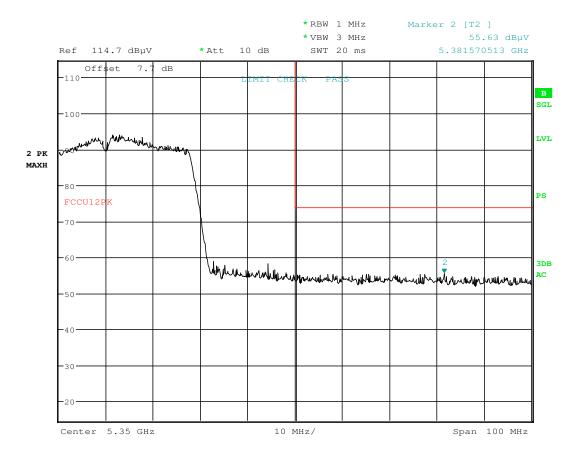
Date: 25.JAN.2017 20:20:14

Plot 7-199. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 161 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 101 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





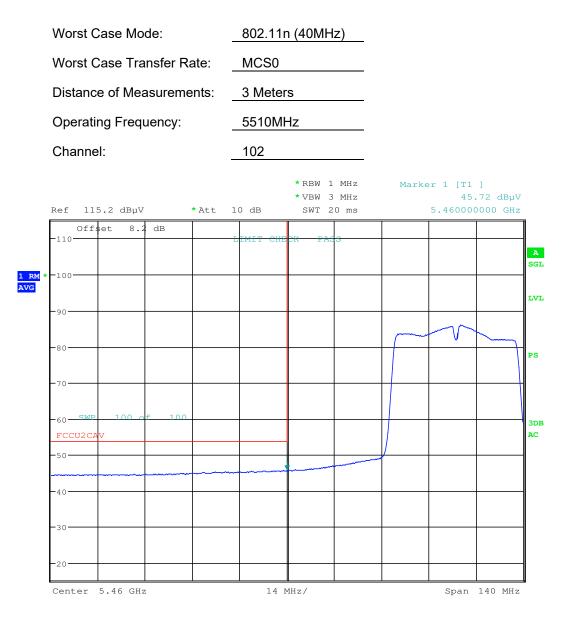
Date: 25.JAN.2017 20:19:57

Plot 7-200. Radiated Restricted Upper Band Edge Plot (Peak - UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 162 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 162 of 248
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			

12/26/2016





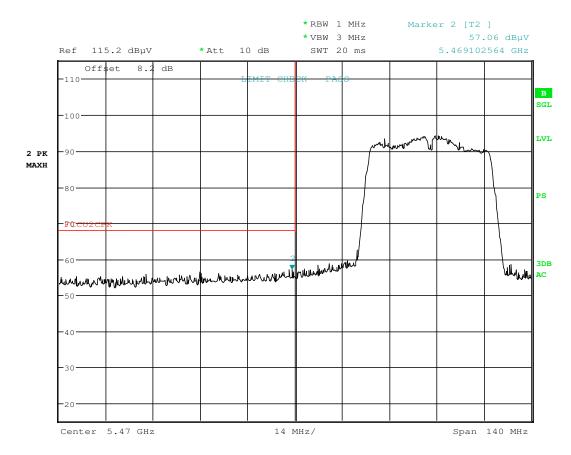
Date: 25.JAN.2017 20:41:53

Plot 7-201. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 162 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 163 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





Date: 25.JAN.2017 20:41:41

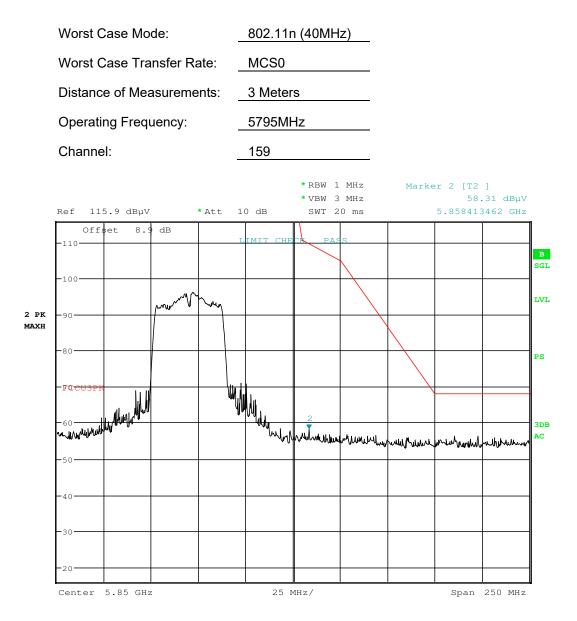
Plot 7-202. Radiated Restricted Lower Band Edge Plot (Peak – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 164 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 164 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016

^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.





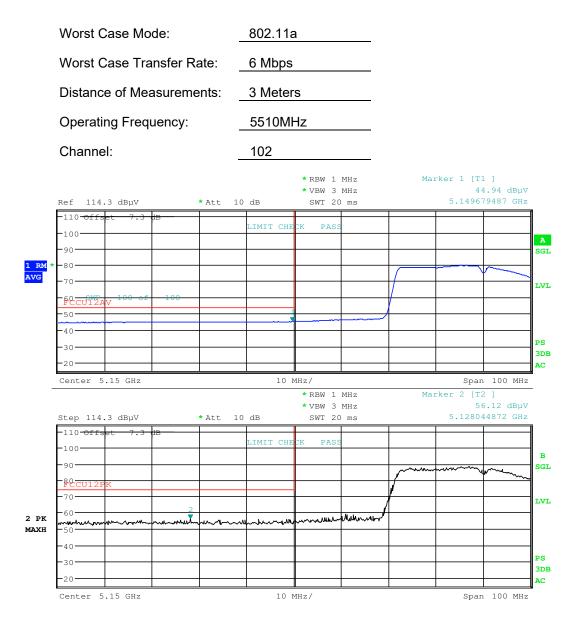
Date: 25.JAN.2017 20:55:40

Plot 7-203. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 165 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 165 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





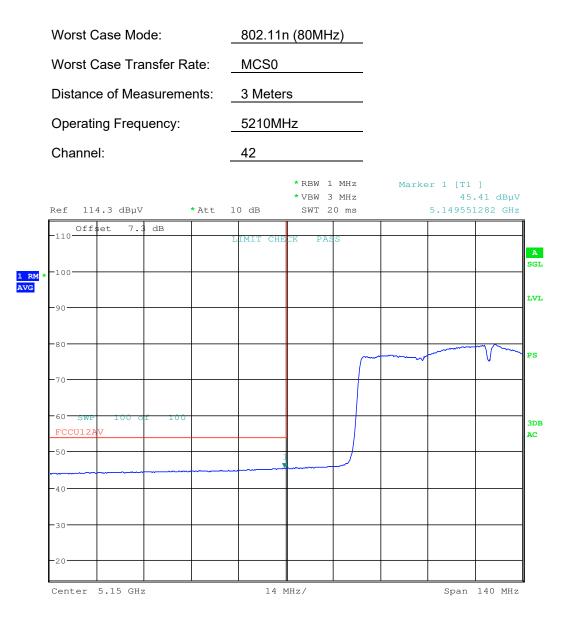
Date: 30.JAN.2017 22:22:22

Plot 7-204. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 166 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 166 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





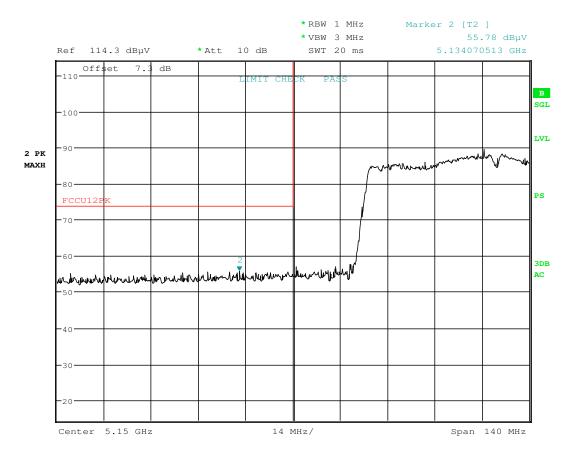
Date: 25.JAN.2017 20:11:53

Plot 7-205. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 167 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 167 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





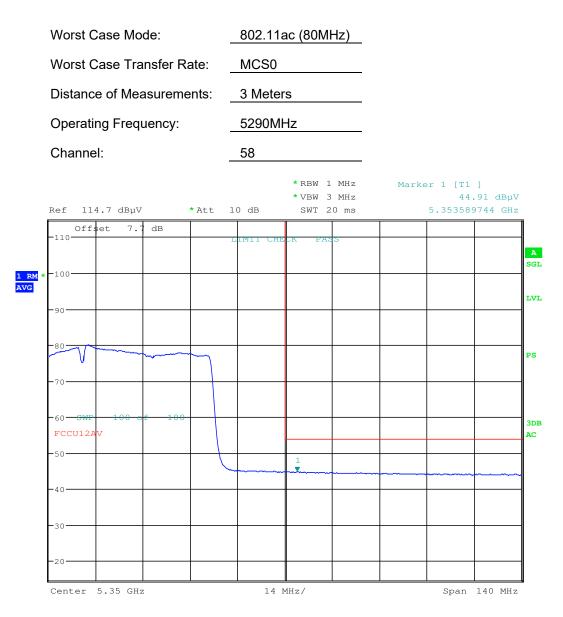
Date: 25.JAN.2017 20:12:18

Plot 7-206. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 169 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 168 of 248
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			

12/26/2016





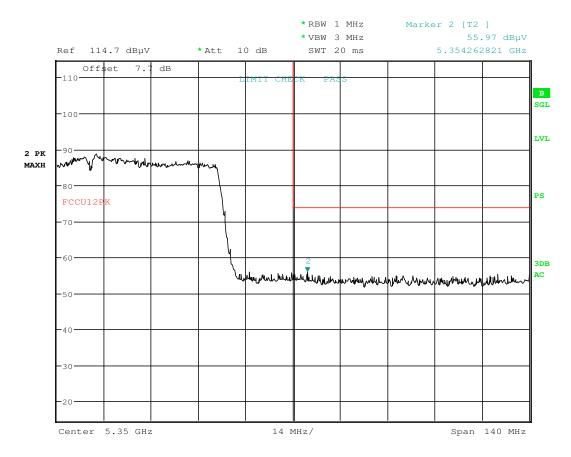
Date: 25.JAN.2017 20:23:02

Plot 7-207. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 160 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 169 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





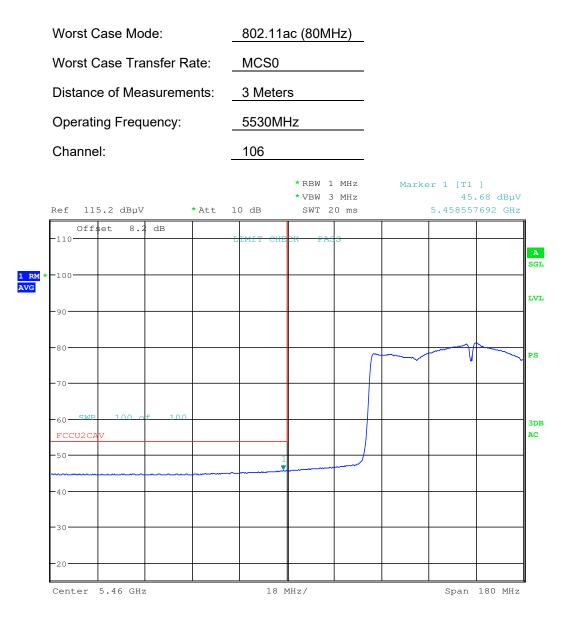
Date: 25.JAN.2017 20:23:12

Plot 7-208. Radiated Restricted Upper Band Edge Plot (Peak - UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 170 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 170 01 246
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





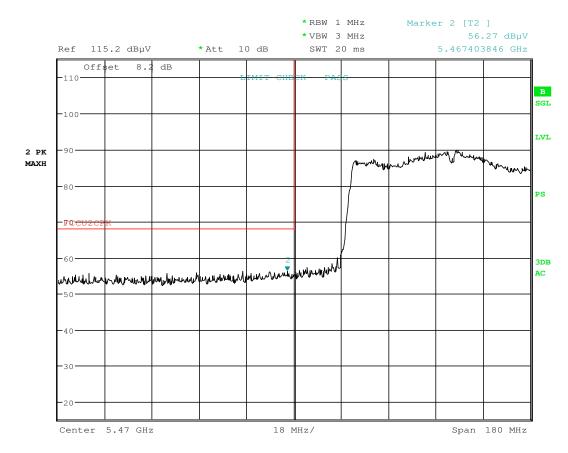
Date: 25.JAN.2017 20:43:41

Plot 7-209. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 171 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 171 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





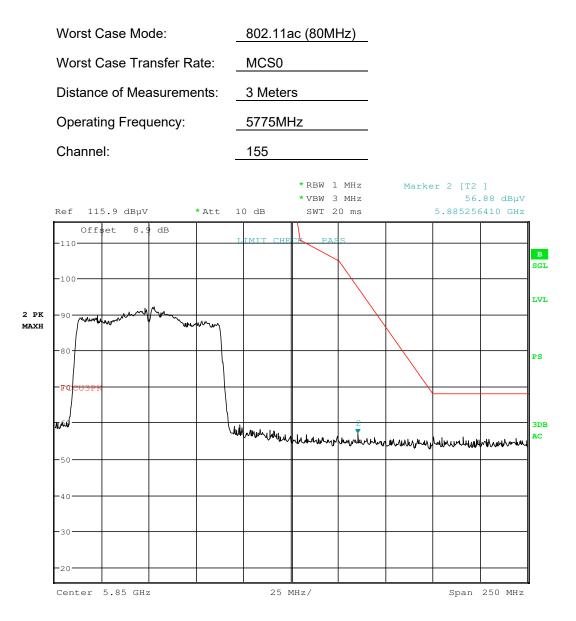
Date: 25.JAN.2017 20:43:58

Plot 7-210. Radiated Restricted Lower Band Edge Plot (Peak – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 172 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 172 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





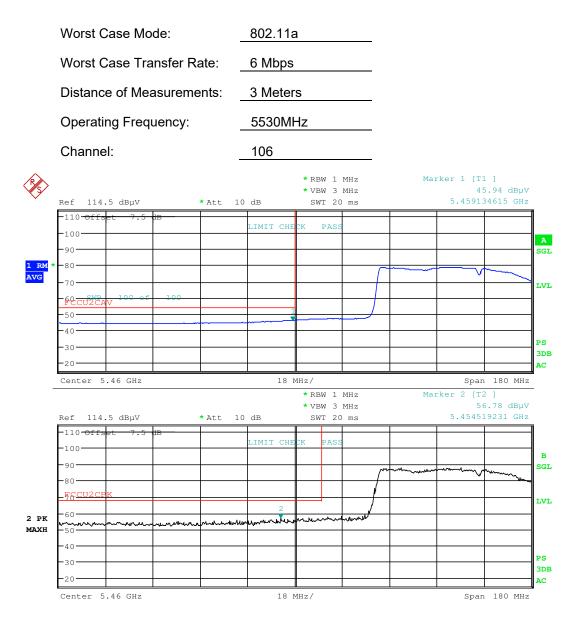
Date: 25.JAN.2017 20:56:44

Plot 7-211. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 172 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 173 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





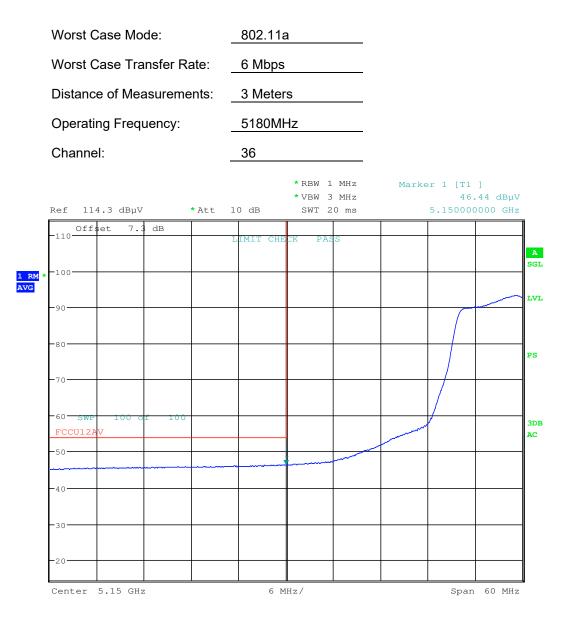
Date: 6.FEB.2017 23:16:49

Plot 7-212. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 174 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 174 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





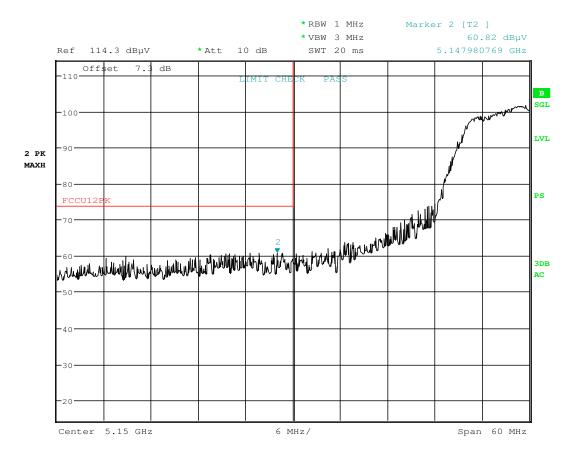
Date: 25.JAN.2017 21:04:19

Plot 7-213. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 175 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 175 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





Date: 25.JAN.2017 21:04:28

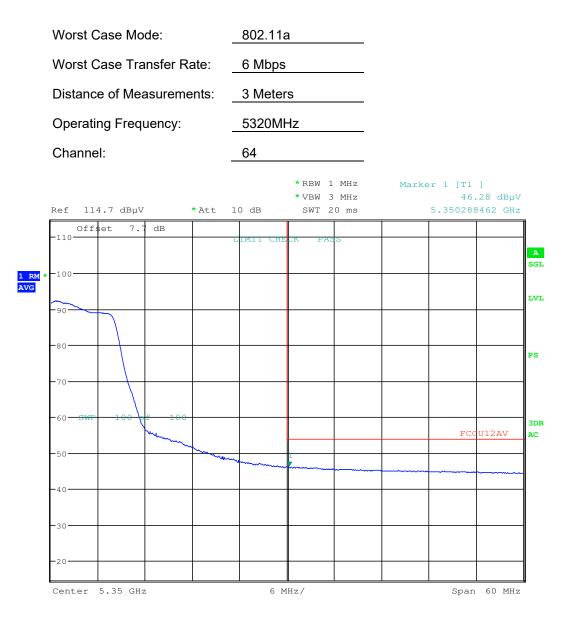


FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 176 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 176 of 248
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, f





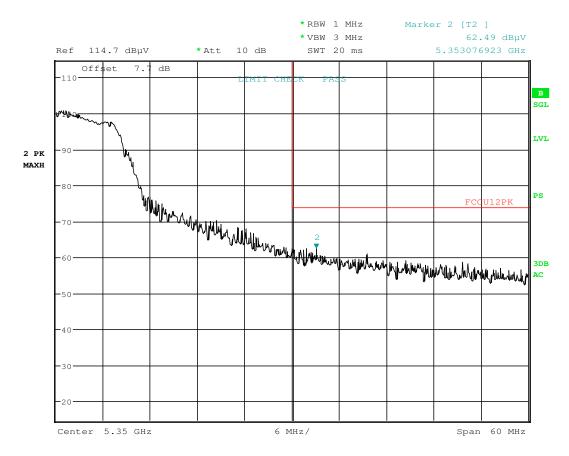
Date: 25.JAN.2017 21:19:50

Plot 7-215. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 177 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 177 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





Date: 25.JAN.2017 21:20:00

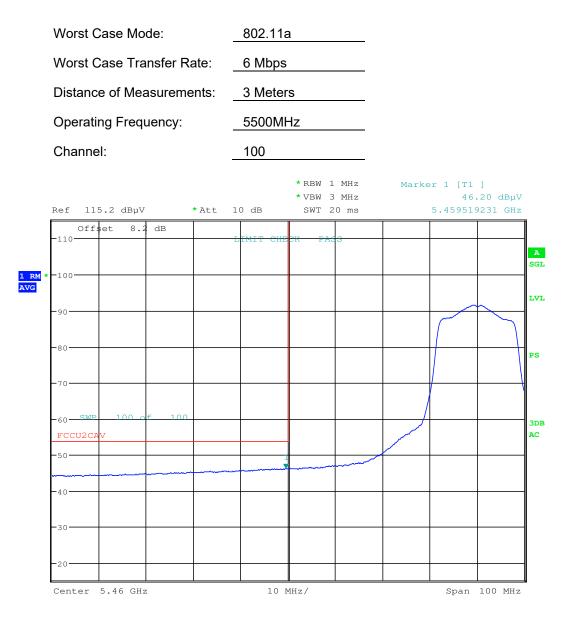


FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 179 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 178 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016

© 2015 PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, f





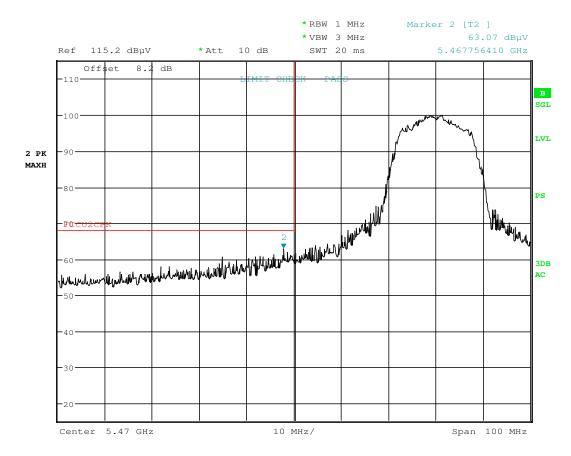
Date: 25.JAN.2017 21:34:04

Plot 7-217. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 170 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 179 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





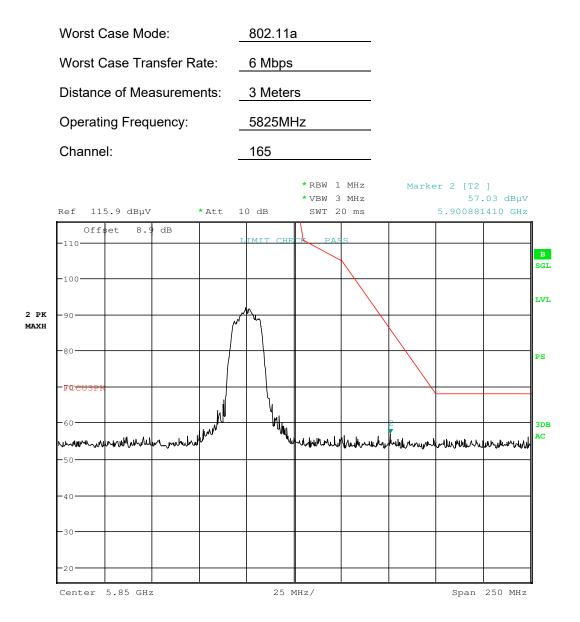
Date: 25.JAN.2017 21:34:22



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 180 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 160 01 246
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			V 6.1

12/26/2016





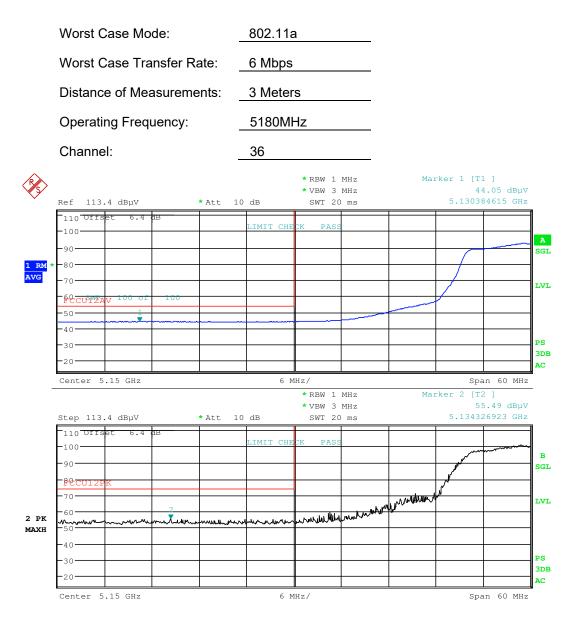
Date: 8.FEB.2017 15:21:13

Plot 7-219. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 181 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 101 01 240
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





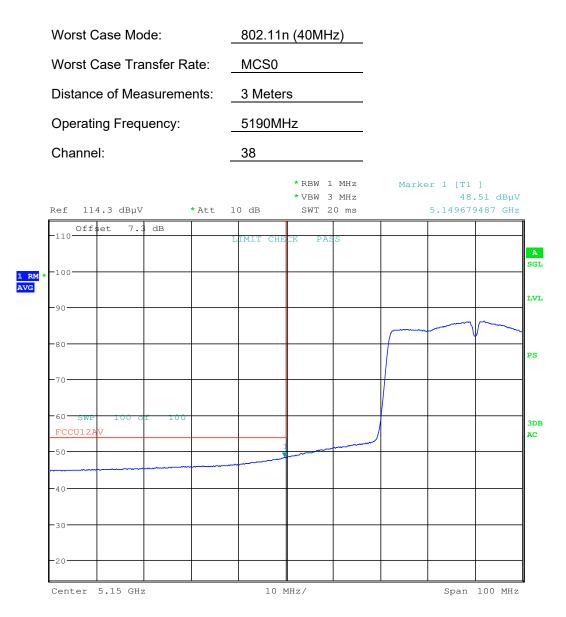
Date: 6.FEB.2017 23:25:41

Plot 7-220. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 182 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 162 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





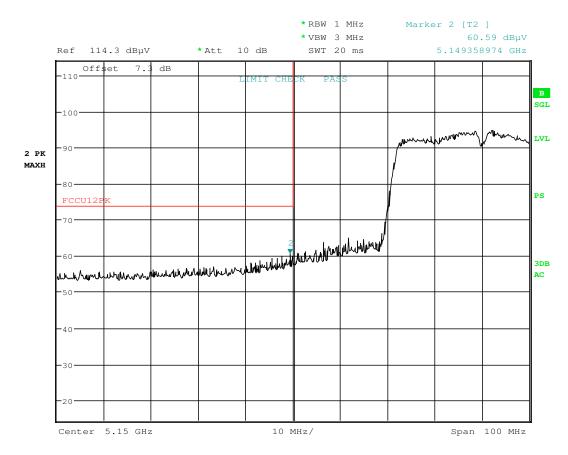
Date: 25.JAN.2017 21:12:04

Plot 7-221. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 102 of 240
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 183 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





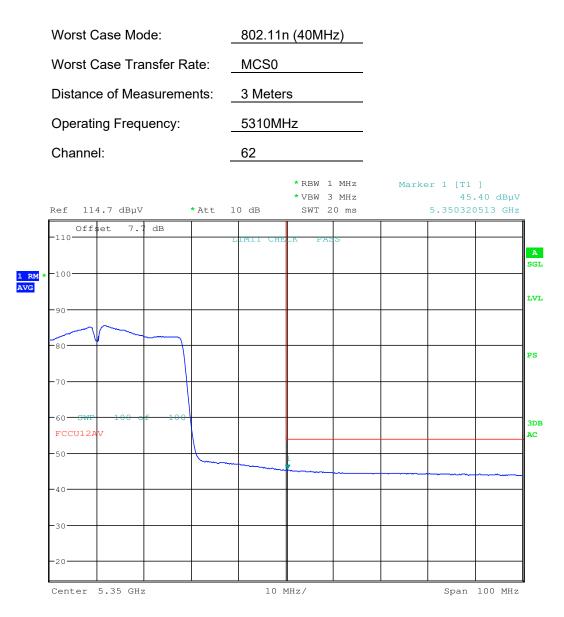
Date: 25.JAN.2017 21:11:52



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 194 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 184 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





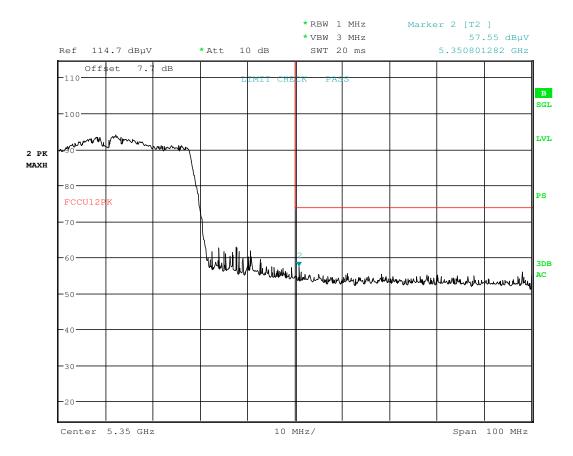
Date: 25.JAN.2017 21:23:05

Plot 7-223. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 195 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 185 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





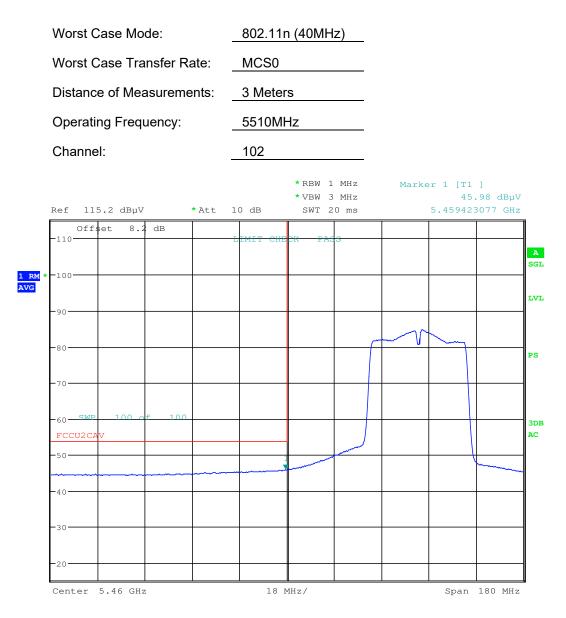
Date: 25.JAN.2017 21:22:54



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg a 196 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 186 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





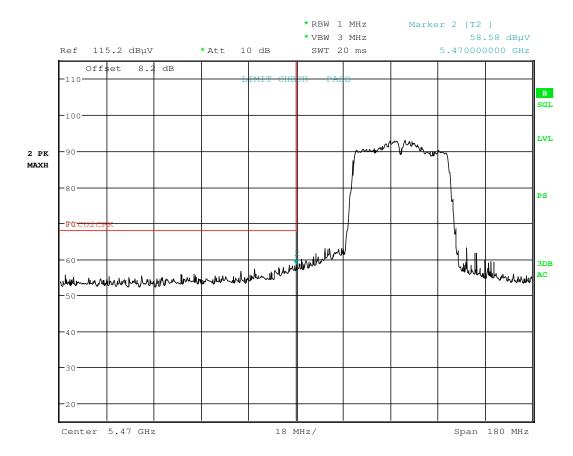
Date: 25.JAN.2017 21:35:43

Plot 7-225. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 187 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 167 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





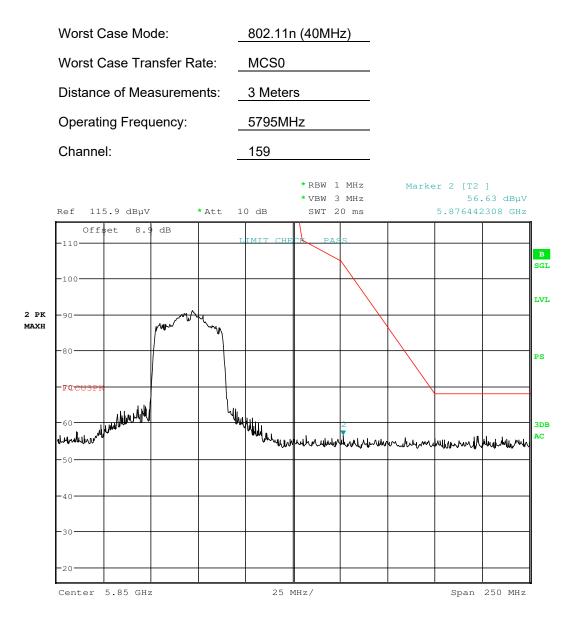
Date: 25.JAN.2017 21:36:06



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 199 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 188 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





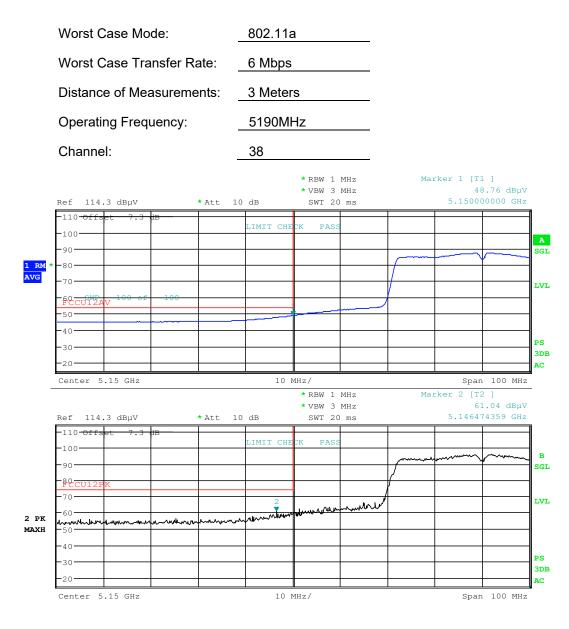
Date: 8.FEB.2017 15:22:16

Plot 7-227. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 100 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 189 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





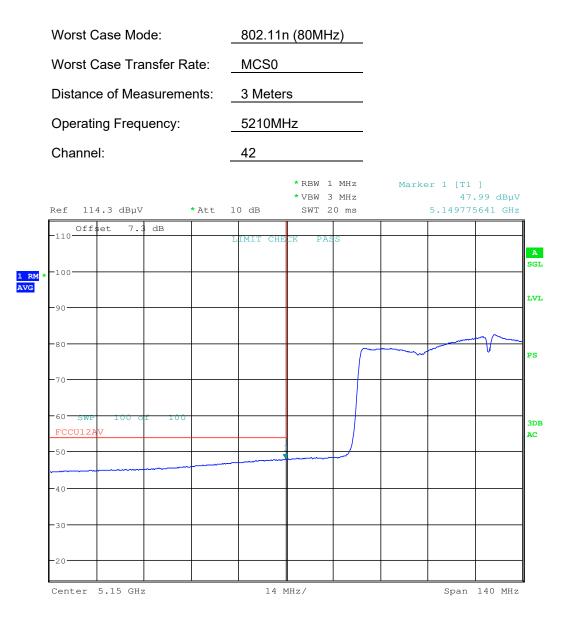
Date: 30.JAN.2017 22:32:13

Plot 7-228. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 190 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





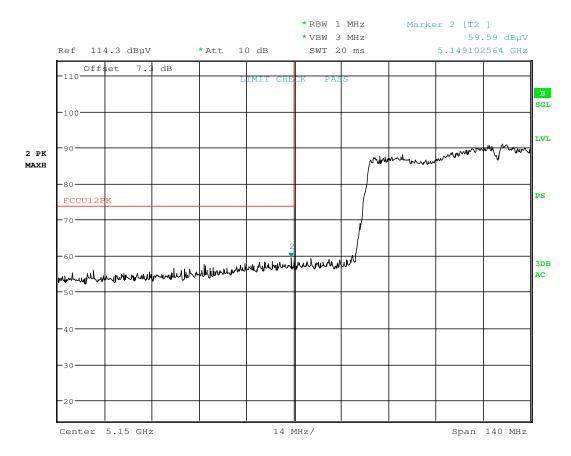
Date: 25.JAN.2017 21:13:40

Plot 7-229. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 101 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 191 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





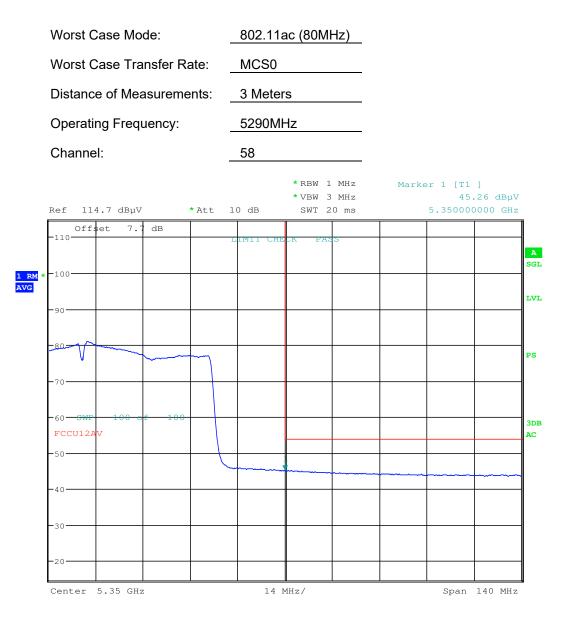
Date: 25.JAN.2017 21:13:52

Plot 7-230. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 102 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 192 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





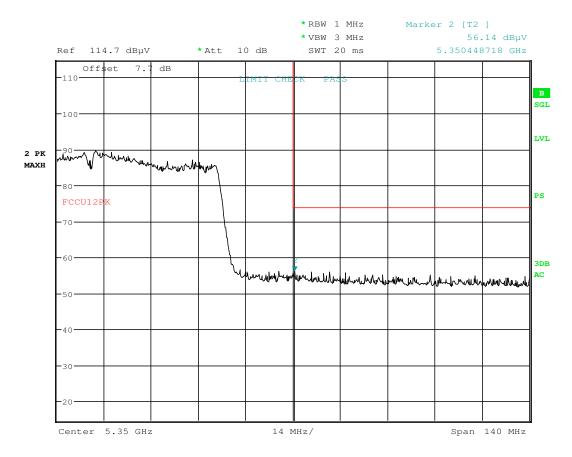
Date: 25.JAN.2017 21:26:35

Plot 7-231. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 102 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 193 of 248
◎ 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





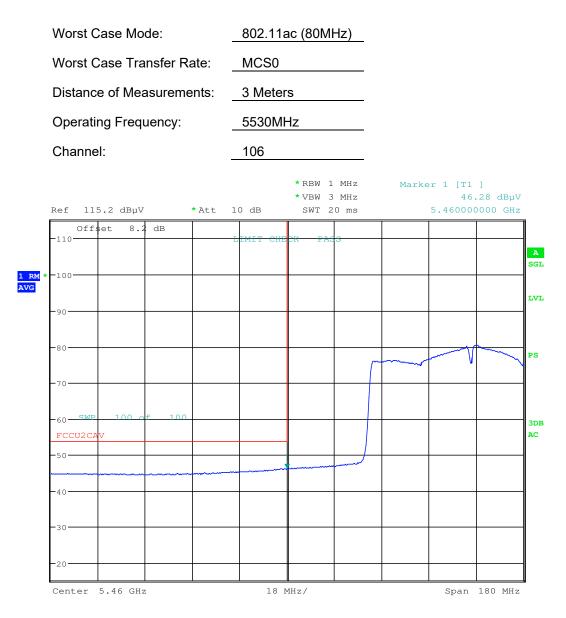
Date: 25.JAN.2017 21:26:46



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 104 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 194 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





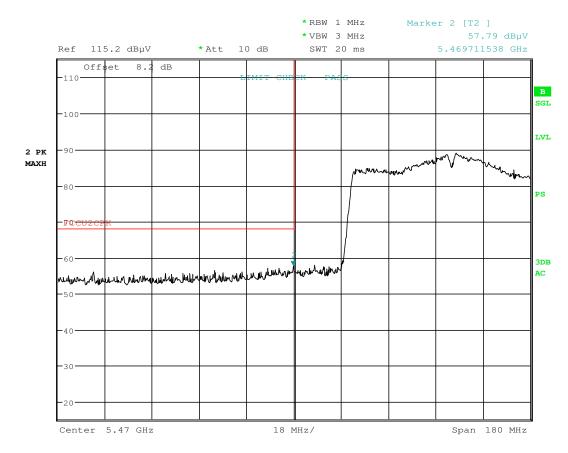
Date: 25.JAN.2017 21:39:00

Plot 7-233. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degre 105 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 195 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





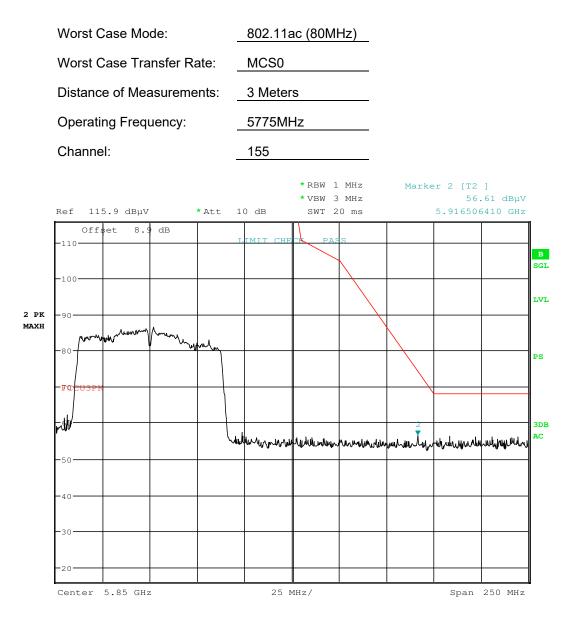
Date: 25.JAN.2017 21:39:17

Plot 7-234. Radiated Restricted Lower Band Edge Plot (Peak – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 106 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 196 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





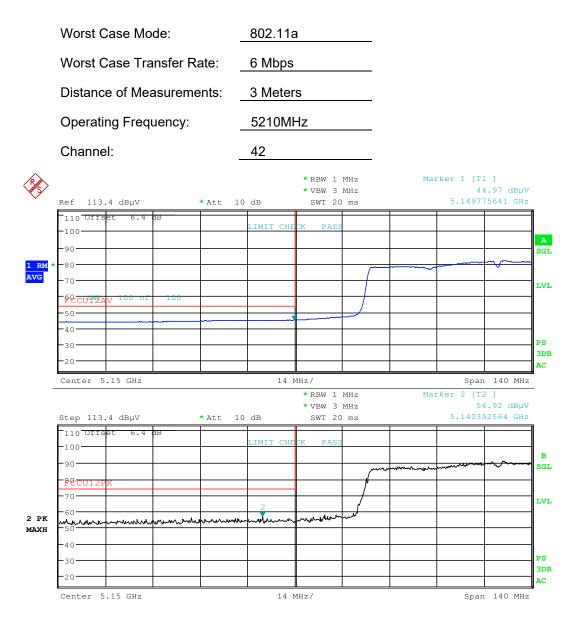
Date: 8.FEB.2017 15:23:14

Plot 7-235. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 197 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 197 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





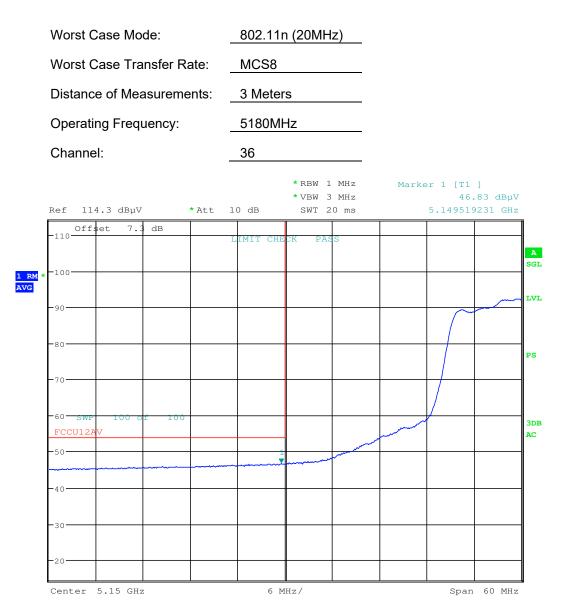
Date: 6.FEB.2017 23:27:34

Plot 7-236. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 240
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 198 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





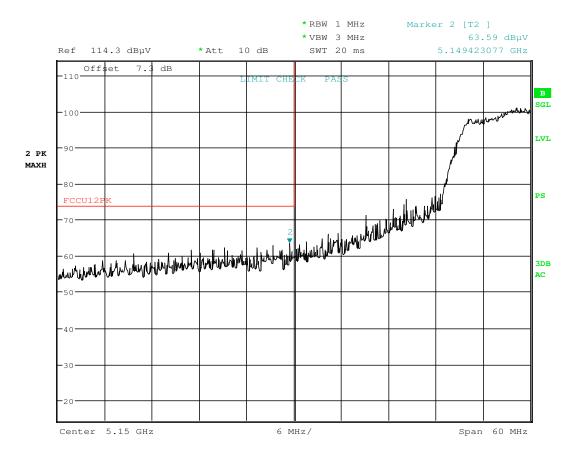
Date: 25.JAN.2017 22:35:04

Plot 7-237. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 100 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 199 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





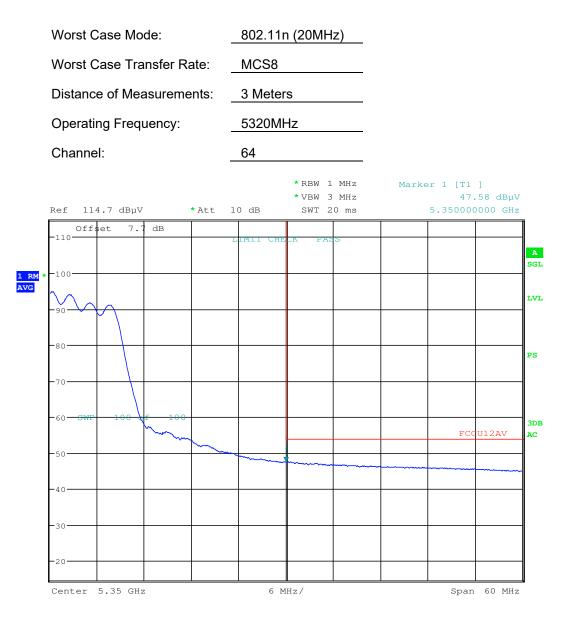
Date: 25.JAN.2017 22:35:14

Plot 7-238. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 200 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 200 of 248
0 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





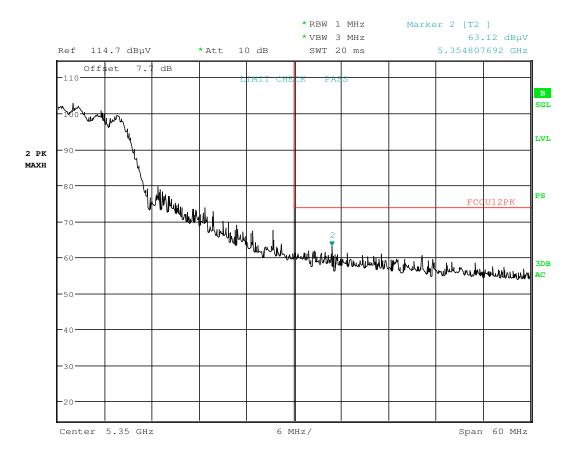
Date: 25.JAN.2017 22:46:03

Plot 7-239. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 201 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 201 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





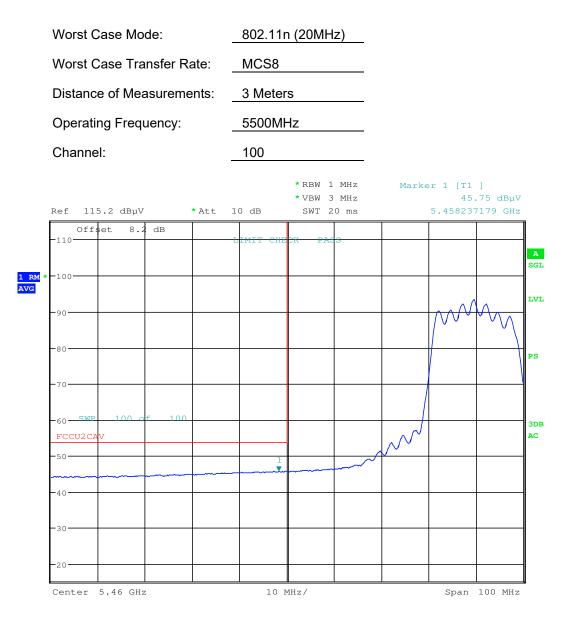
Date: 25.JAN.2017 22:46:57



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 202 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 202 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





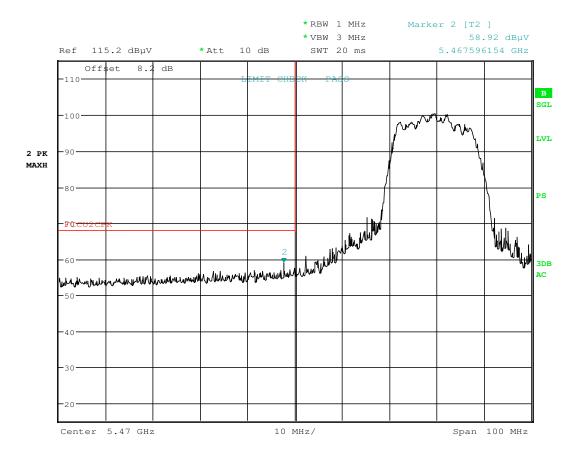
Date: 25.JAN.2017 23:13:21

Plot 7-241. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 202 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 203 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





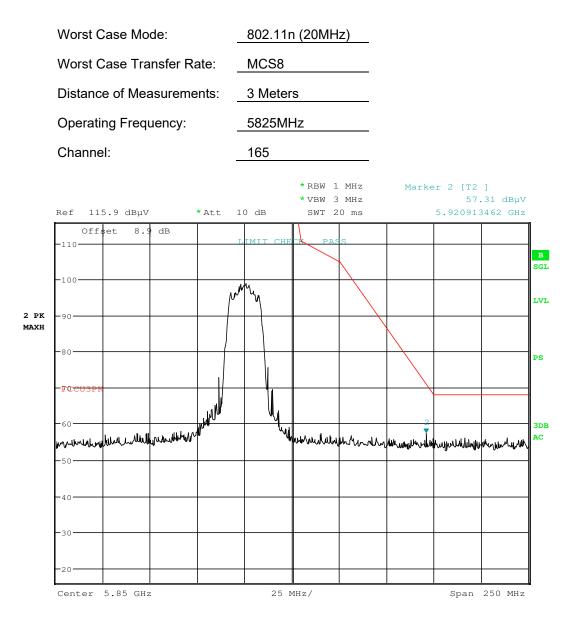
Date: 25.JAN.2017 23:13:38



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 204 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 204 of 248
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			

12/26/2016





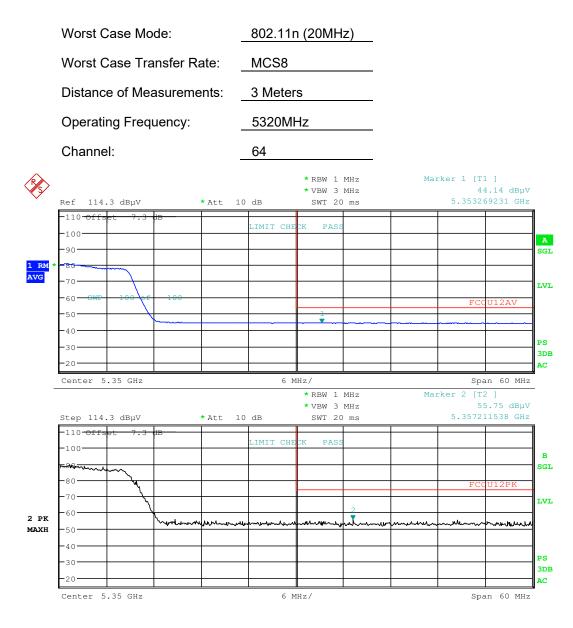
Date: 25.JAN.2017 23:27:45

Plot 7-243. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

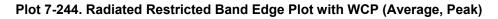
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degre 205 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 205 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





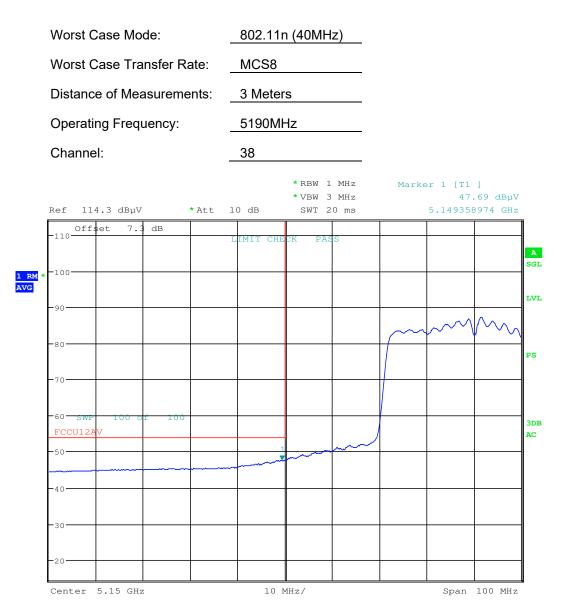
Date: 6.FEB.2017 23:37:28



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 206 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 206 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





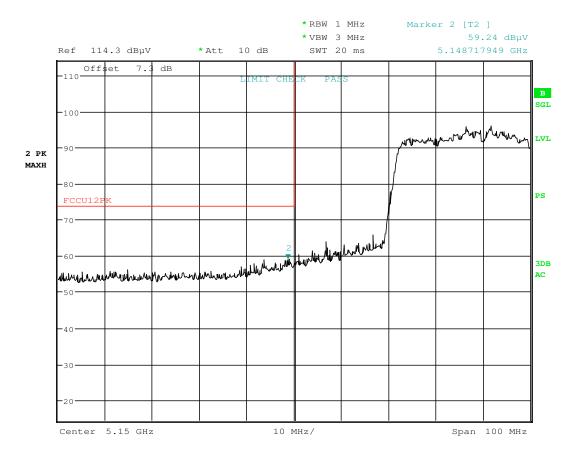
Date: 25.JAN.2017 22:36:15

Plot 7-245. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 207 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 207 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





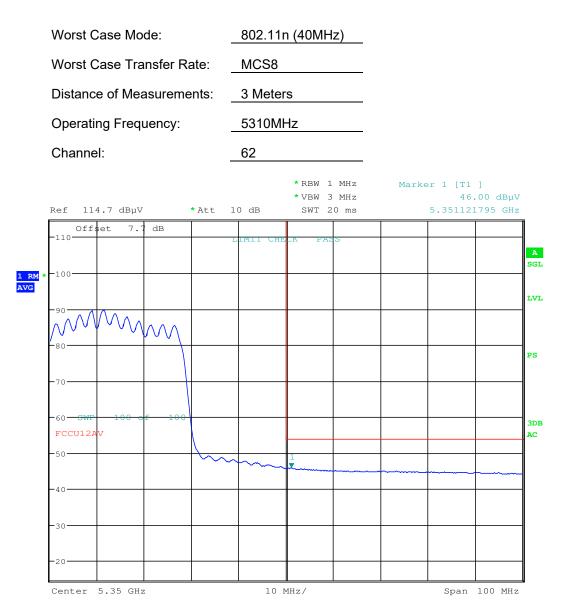
Date: 25.JAN.2017 22:36:04

Plot 7-246. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 200 of 240
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 208 of 248
© 2017 PCTEST Engineering La	2017 PCTEST Engineering Laboratory, Inc.			V 6.1

12/26/2016





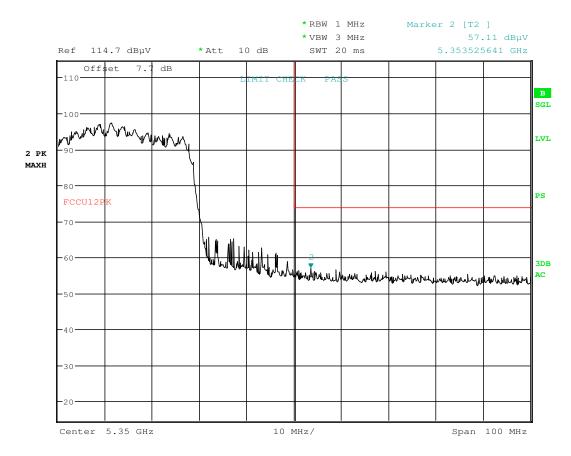
Date: 25.JAN.2017 22:54:58

Plot 7-247. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 200 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 209 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





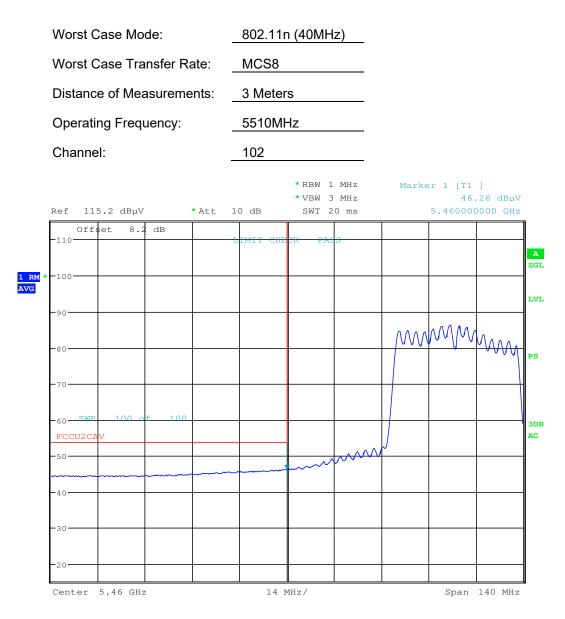
Date: 25.JAN.2017 22:54:47



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 210 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 210 of 248
© 2017 PCTEST Engineering La	◎ 2017 PCTEST Engineering Laboratory, Inc.			

12/26/2016





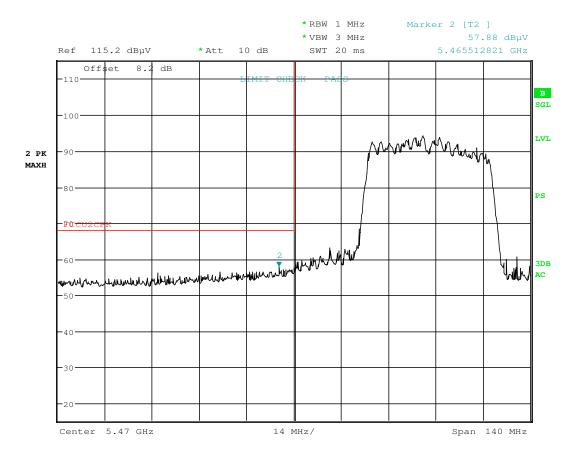
Date: 25.JAN.2017 23:17:05

Plot 7-249. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 211 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 211 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





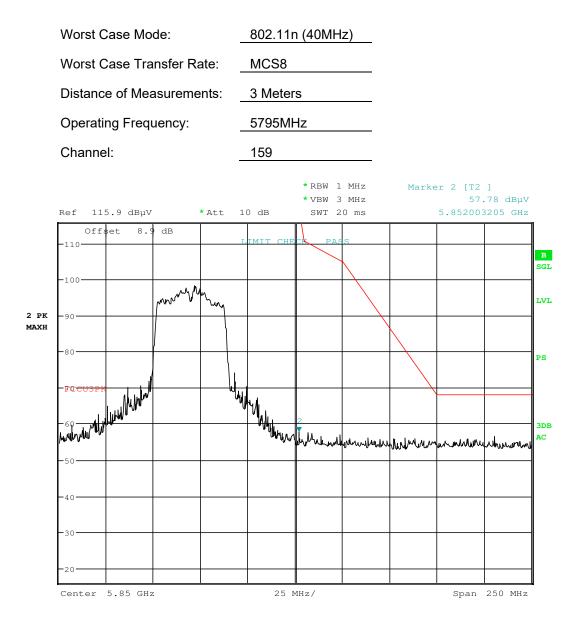
Date: 25.JAN.2017 23:16:54



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 212 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 212 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





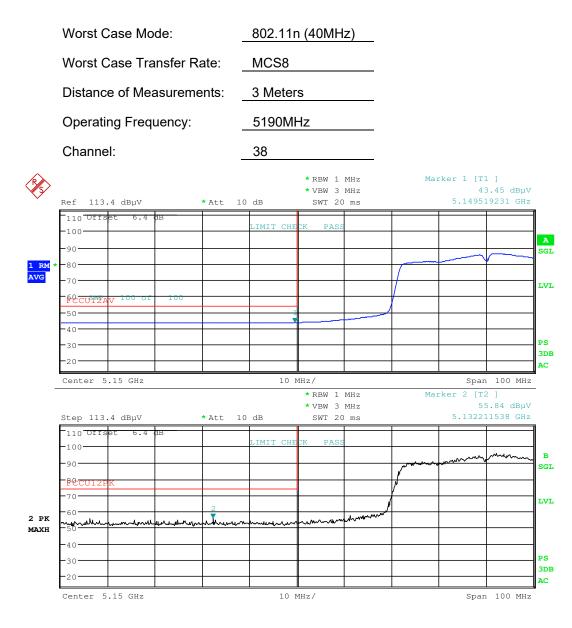
Date: 25.JAN.2017 23:28:54

Plot 7-251. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 212 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 213 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





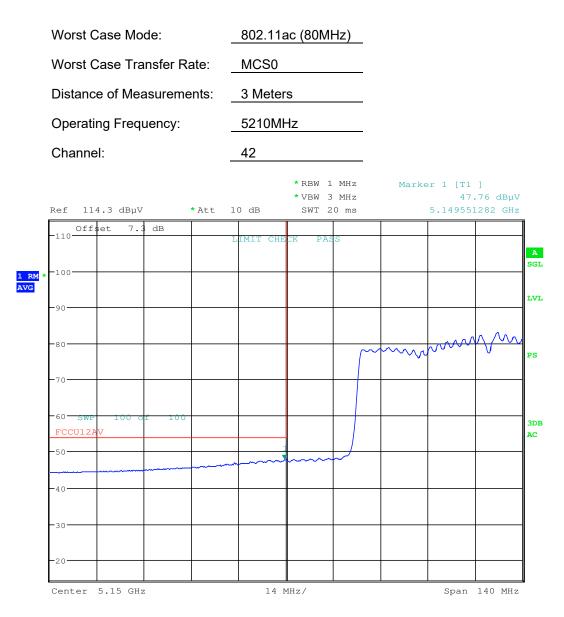
Date: 6.FEB.2017 23:39:59

Plot 7-252. Radiated Restricted Band Edge Plot with WCP (Average, Peak)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 214 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 214 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





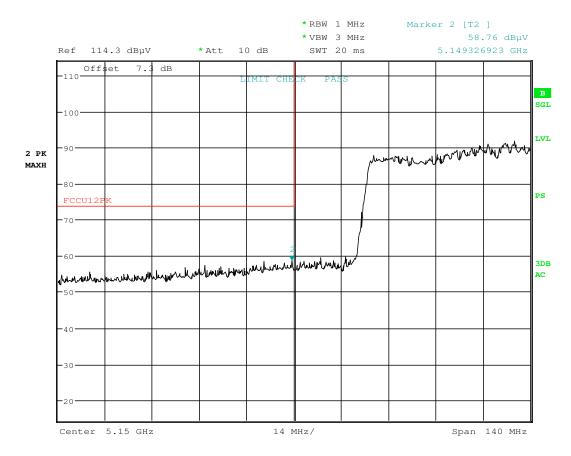
Date: 25.JAN.2017 22:37:20

Plot 7-253. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 215 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 215 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





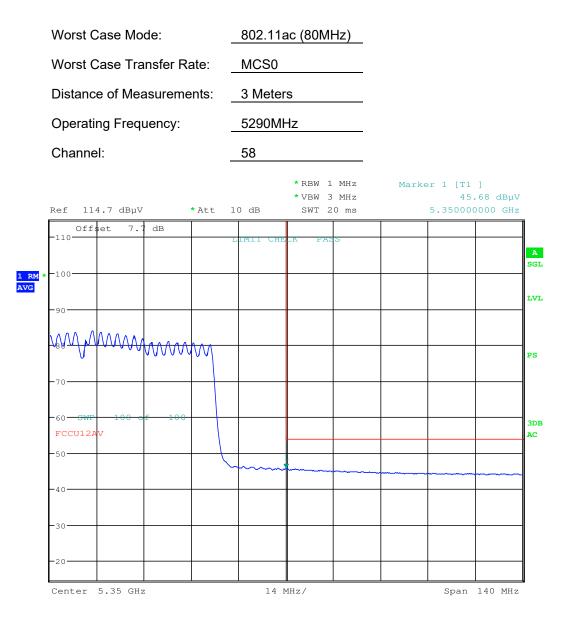
Date: 25.JAN.2017 22:37:30

Plot 7-254. Radiated Restricted Lower Band Edge Plot (Peak - UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 216 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 216 of 248
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





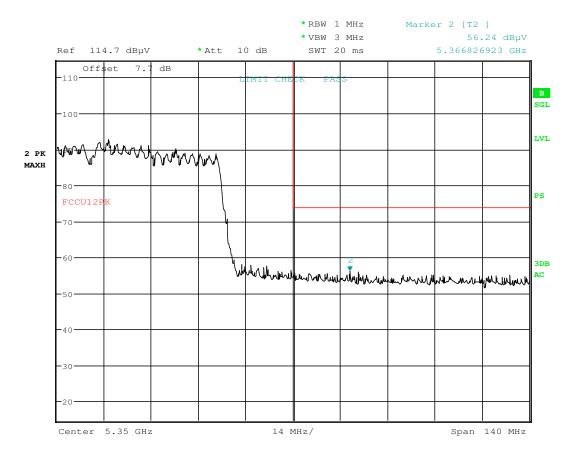
Date: 25.JAN.2017 22:57:39

Plot 7-255. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 217 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 217 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





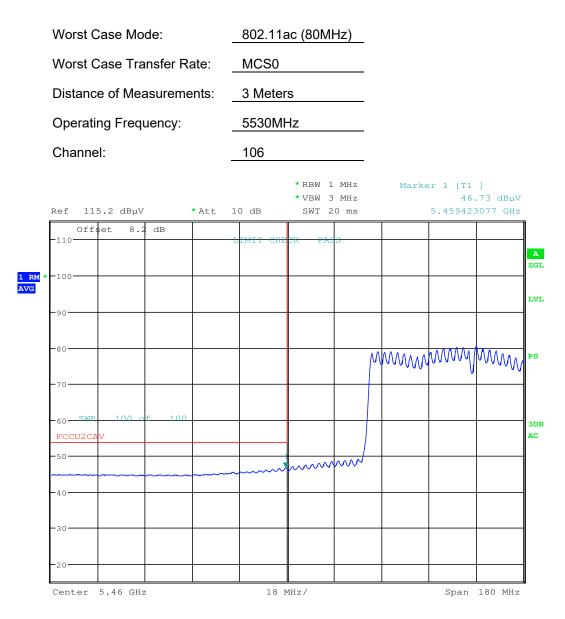
Date: 25.JAN.2017 22:57:49



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 219 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 218 of 248
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





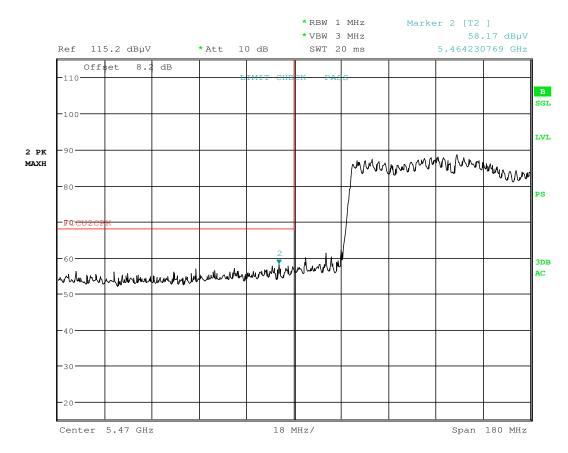
Date: 25.JAN.2017 23:18:47

Plot 7-257. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degra 210 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 219 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





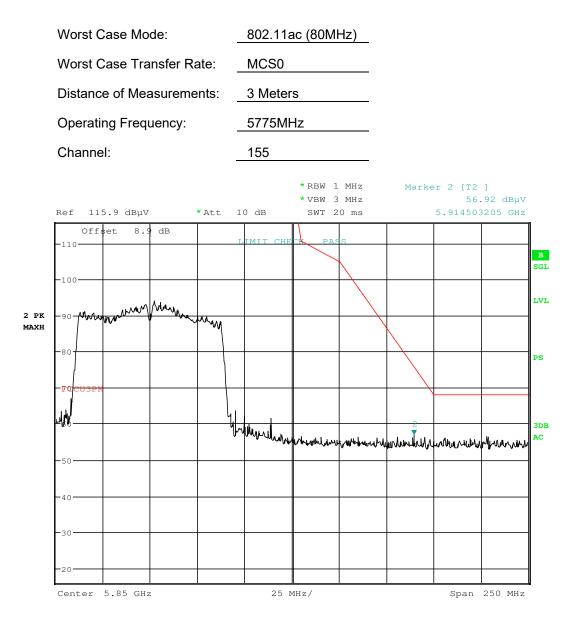
Date: 25.JAN.2017 23:19:11

Plot 7-258. Radiated Restricted Lower Band Edge Plot (Peak – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 220 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 220 01 246
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





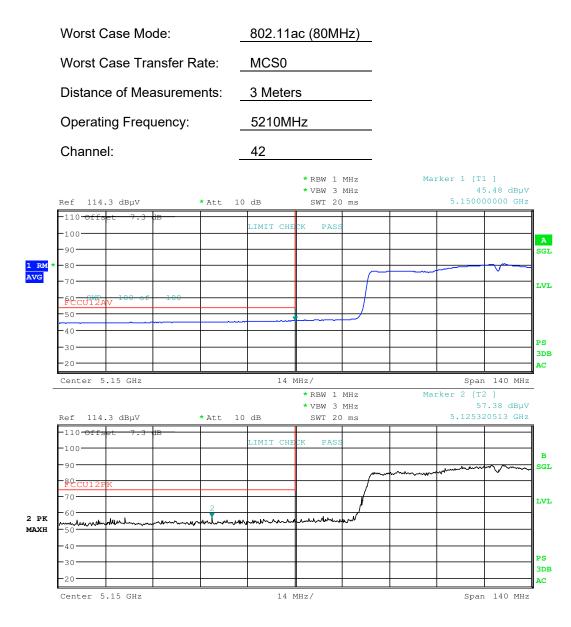
Date: 25.JAN.2017 23:29:58

Plot 7-259. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 221 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 221 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





Date: 30.JAN.2017 22:51:14

Plot 7-260. Radiated Restricted Band Edge Plot with WCP

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 222 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 222 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016



7.8 Radiated Spurious Emissions Measurements – Below 1GHz §15.209

Test Overview and Limit

All out of band radiated spurious emissions are measured with a spectrum analyzer connected to a receive antenna while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for radiated spurious emissions. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table 7-64 per Section 15.209.

Frequency	Field Strength [µV/m]	Measured Distance [Meters]
0.009 – 0.490 MHz	2400/F (kHz)	300
0.490 – 1.705 MHz	24000/F (kHz)	30
1.705 – 30.00 MHz	30	30
30.00 – 88.00 MHz	100	3
88.00 – 216.0 MHz	150	3
216.0 – 960.0 MHz	200	3
Above 960.0 MHz	500	3

Table 7-64. Radiated Limits

Test Procedures Used

ANSI C63.10-2013

Test Settings

Quasi-Peak Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 120kHz (for emissions from 30MHz 1GHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 223 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 225 01 246
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

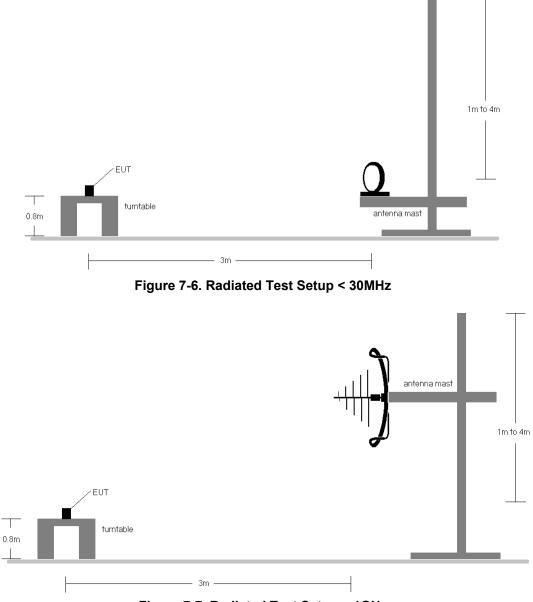
12/26/2016

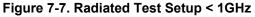
^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



Test Setup

The EUT and measurement equipment were set up as shown in the diagrams below.





FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degre 224 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 224 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016



Test Notes

- 1. All emissions lying in restricted bands specified in §15.205 are below the limit shown in Table 7-64.
- 2. The broadband receive antenna is manipulated through vertical and horizontal polarizations during the tests. The EUT is manipulated through three orthogonal planes.
- 3. This unit was tested with its standard battery.
- 4. The spectrum is investigated using a peak detector and final measurements are recorded using CISPR quasi peak detector. The worst-case emissions are reported however emissions whose levels were not within 20dB of the respective limits were not reported.
- 5. Emissions were measured at a 3 meter test distance.
- 6. Emissions are investigated while operating on the center channel of the mode, band, and modulation that produced the worst case results during the transmitter spurious emissions testing.
- 7. No spurious emissions were detected within 20dB of the limit below 30MHz.
- 8. The results recorded using the broadband antenna is known to correlate with the results obtained by using a tuned dipole with an acceptable degree of accuracy. The VSWR for the measurement antenna was found to be less than 2:1.
- The wide spectrum spurious emissions plots shown on the following pages are used only for the purpose of emission identification. There were no emissions detected in the 30MHz – 1GHz frequency range, as shown in the subsequent plots.

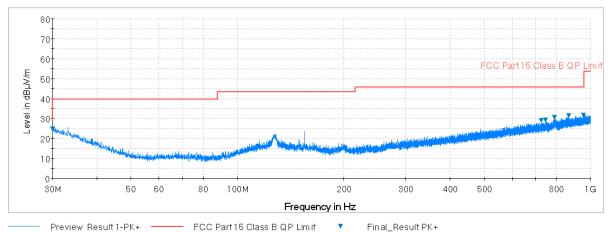
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 225 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 225 of 248
2017 PCTEST Engineering Laboratory Inc				

12/26/2016

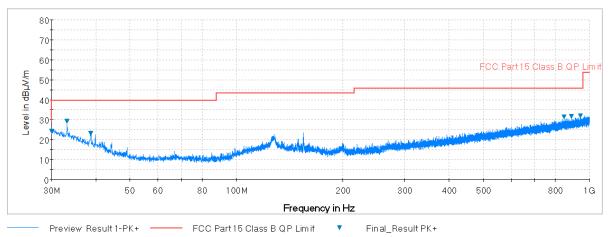
^{© 2015} PCTEST Engineering Laboratory. Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



Antenna-1 Radiated Spurious Emissions Measurements (Below 1GHz) §15.209



Plot 7-261. Radiated Spurious Plot below 1GHz (802.11a – U3 Ch. 157, Ant. Pol. H)



Plot 7-262. Radiated Spurious Plot below 1GHz (802.11a - U3 Ch. 157, Ant. Pol. V)

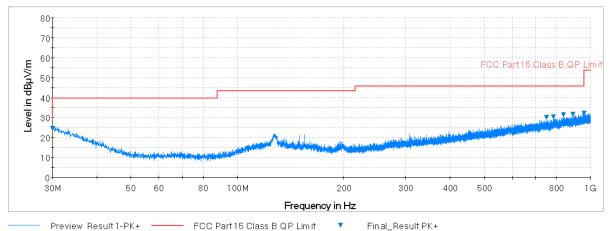
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degre 226 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 226 of 248
© 2017 PCTEST Engineering Laboratory. Inc. V 6.				

12/26/2016

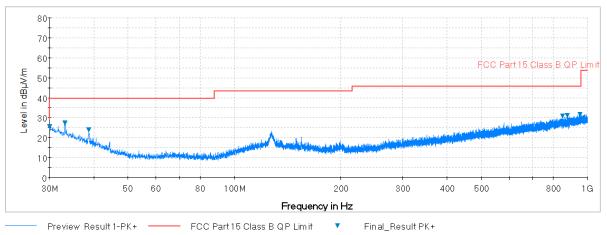
^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utili



Antenna-2 Radiated Spurious Emissions Measurements (Below 1GHz) §15.209







Plot 7-264. Radiated Spurious Plot below 1GHz (802.11a - U3 Ch. 157, Ant. Pol. V)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 227 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 227 of 248
© 2017 PCTEST Engineering La	boratory. Inc.			V 6.1

12/26/2016

^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or produced or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized in any part, form or by any means, electronic or mechanical, include or utilized or utilized



Test Overview and Limit

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section.

All conducted emissions must not exceed the limits shown in the table below, per Section 15.207.

Frequency of emission	Conducted	Limit (dBµV)
(MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 – 5	56	46
5 – 30	60	50

Table 7-65. Conducted Limits

*Decreases with the logarithm of the frequency.

Test Procedures Used

ANSI C63.10-2013, Section 6.2

Test Settings

Quasi-Peak Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest
- 2. RBW = 9kHz (for emissions from 150kHz 30MHz)
- 3. Detector = quasi-peak
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

Average Field Strength Measurements

- 1. Analyzer center frequency was set to the frequency of the spurious emission of interest
- 2. RBW = 9kHz (for emissions from 150kHz 30MHz)
- 3. Detector = RMS
- 4. Sweep time = auto couple
- 5. Trace mode = max hold
- 6. Trace was allowed to stabilize

FCCID: /NEH8/1	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 220 of 240
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 228 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

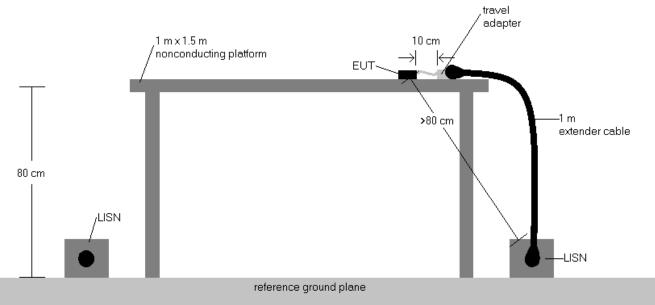
12/26/2016

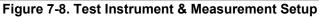
^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereof, please contact INFO@PCTESTLAB.COM.



Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.





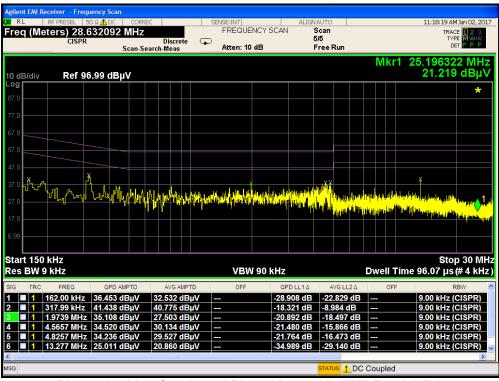
Test Notes

- 1. All modes of operation were investigated and the worst-case emissions are reported using mid channel. The emissions found were not affected by the choice of channel used during testing.
- 2. The limit for an intentional radiator from 150kHz to 30MHz are specified in 15.207.
- 3. Corr. (dB) = Cable loss (dB) + LISN insertion factor (dB)
- 4. QP/AV Level (dB μ V) = QP/AV Analyzer/Receiver Level (dB μ V) + Corr. (dB)
- 5. Margin (dB) = QP/AV Limit (dB μ V) QP/AV Level (dB μ V)
- 6. Traces shown in plot are made using a peak detector.
- 7. Deviations to the Specifications: None.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 229 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 229 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016



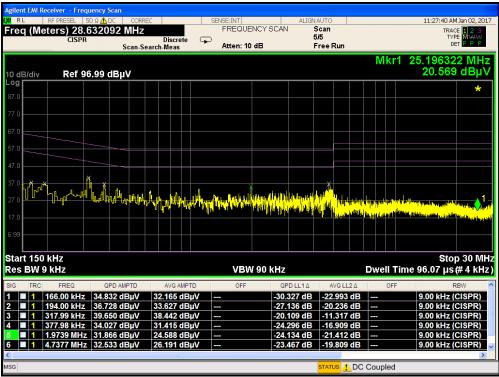


Plot 7-265. Line Conducted Plot with 802.11a UNII Band 1 (L1)

FCC ID: ZNFH871	ENGINEERING LABORATORY, INC.	FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 220 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 230 of 248
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1

12/26/2016





Plot 7-266. Line Conducted Plot with 802.11a UNII Band 1 (N)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 221 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 231 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	·		V 6.1

12/26/2016



Agilent EMI Re	ceiver - Fred	uency S	Scan																							
X/ RL	RF PRESEL	50 Ω 🧥 I	DC	CORR	EC					SENSE	INT			AL	IGN A	JTO							11	:37:18	AM Jan (02.2017
Freq (Me		6320	92 N	AHz			cret	e	Ģ		REQUI		SCAN	1	5/0	an 5 ee F	Run							TR T	ACE 1 YPE M DET P	23 ₩₩ РР
10 dB/div	Ref 9	6.99	dBµ\	1																MI	kr'	2			22 1 d	
87.0																										*
77.0 67.0																										
57.0																										
47.0		 K					╡									Kong (
^{37.0} الرومين 27.0			^{լի} ւղ	K-Uþ	4	Y H	i h	μY	۱ <mark>۹</mark>	41	ks t₩	i (yy)					l son politica	data y	luis. Istopi	had N ^{an}	lann Mar	hadd Mpwy	Щ _{ал} И _{рал}	hat, la ^{Ja} ngar	la l	<mark>∼</mark> 1
6.99																										
Start 150 Res BW 9											VBV	V 90	kHz						D٧	/el	I Ti	me	96.		op 31 s(#4	
SIG TRC	FREQ		PD AMF					IPTD			OFF			PD LL1			VG LL				OFF				RBW	_
	313.99 kHz 4.1657 MHz		36 dE 56 dE			9.80 6.28								728 d			.063 .715								(CISI	
	4.3977 MHz	35.0	80 dB	šμV	3	0.66	5 d	Bμ\	V				-20	920 d	В	-15	.335	dB					9.0	0 kHz	(CISI	PR)
	4.5897 MHz 4.6497 MHz		81 dB			0.31 1.15								.519 d .539 d			.689 .844								(CISI	
	4.6497 MH2 4.7497 MHz					9.99								.620 d			.009								(CIS	
																										>
ISG																TATI	JS 🥂	DO	Ca	unl	o d					

Plot 7-267. Line Conducted Plot with 802.11a UNII Band 2A (L1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 232 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 232 01 246
© 2017 PCTEST Engineering La	aboratory, Inc.	•		V 6.1

12/26/2016



Agilent EMI Receiv	er - Frequency	Scan												
	RESEL 50 Q A		EC		SENSE	INT		ALIGN	IAUTO				11:31:42 A	M Jan 02, 2017
Freq (Meter		092 MHz	Disc arch-Me	crete as		REQUE tten: 10	NCY SCÀN		Scan 5/5 Free Ri	ın			TRA T	CE 123 (PE MWW) DET P P P
10 dB/div	Ref 96.99	dBµV									N	lkr1		22 MHz 6 dBµV
87.0														*
67.0														
47.0	 X	·												
27.0 4 U VA		[┣] ╔┛ [║] ╲╌┸Ҷ╍╢Ҷ	14. ₄₁ 4	****	n n h h a h	ina inte	HANNAN	hikada Hitada					ni da <mark>ta angan na panganan Ng king king na pangana</mark>	
6.99													St	p 30 MH
Res BW 9 kH						VBW	/ 90 kHz				Dwe	ell Ti	me 96.07 με	
		QPD AMPTD		G AMPTE		OFF		D LL1 A		LL2 Δ		OFF		RBW
		936 dBµV 226 dBµV	32.10					277 dB 429 dB		06 dB 66 dB			9.00 kHz 9.00 kHz	
3 1 4.56	97 MHz 33.		29.14 27.23					951 dB 569 dB	-16.8	59 dB 65 dB			9.00 kHz 9.00 kHz	(CISPR)
5 🔳 1 4.75	77 MHz 33. 217 MHz 32.	724 dBµV	30.84	7 dBµ	V		-22.	276 dB 185 dB	-15.1	53 dB 73 dB			9.00 kHz 9.00 kHz 9.00 kHz	(CISPR)
4.82	17 MHZ 32.	815 dBµV	29.42	η αιθμ	V		-23.	185 aB	-16.5	73 aB			9.00 KHZ	
ISG									STATUS	1 DC	Coup	oled		

Plot 7-268. Line Conducted Plot with 802.11a UNII Band 2A (N)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 222 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 233 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	•		V 6.1

12/26/2016



Agilent EMI Red	ceiver - Frea	uency S	can																									
		50 Ω Λ [CORRE	EC					SENS	E:INT	-			6	ALIGN	LAUTO)						1	1:40:0	4 AM 1	lan 02, 20:	7
Freq (Met						Dis	scre	te	Ģ	F	REG	QUEI		SCAN			Scan 5/5	1								TRACE TYPE	123 MWW	ŕ
	_		Sc	an-Se	earc	h-Me	eas			A	tten	: 10	dB				Free	Run								DET	P P P	
10 dB/div	Ref 96	6.99 c	lBμ∖	ſ																	М	kr	1 :				2 MH: dBµ\	
87.0																											*	
77.0																												Ī
67.0																					\vdash							i
57.0					_			+												+								
47.0																										=		
37.0	فر	ξ.										X					- XX											
27.0	᠂᠕ᢕᡀ	lan (Mul	hΛ	Ma	<u>م</u>	'n		4.4	L L L	(ind)			1 al	n du	le la	N	i La	poles,	diese i	l _{ent} i	<mark>a la</mark>	սե	ու _{ներ}	<u>ailt</u> an	, da	I	
		1	<u>ب</u>		ľ	4.	ľ	U	- 1	u les les	111	th to	1 11		T M	(^{all})		lup	dipeño	dyna)	woł	ar P	Mar	den al	Juliu		a na siyan. Kana siyan	ĺ
17.0																		Ť								ľ	dintahi _{nan}	ľ
6.99					_																\vdash							
Start 150																				_							30 MI	
Res BW 9	KHZ										V	W	90	кНz						D	we		Im	e 96	07	µs (#4 kH	1
SIG TRC	FREQ		PD AMP		1	AV	G AI	ИРТ	D		OF	FF		QF	PD LL	1Δ		AVG L				OFF					BW	^
	17.99 kHz		99 dB			9.24									.360				1 dE								ISPR)	
	.9699 MHz					0.27									.503				3 dE								ISPR)	
	.3337 MHz					8.98									.904				4 dE								ISPR)	
	.4537 MHz					0.62									.343				3 dE								ISPR)	
	.5657 MHz .8137 MHz					9.35 9.45									.930 .808				9 dE 3 dE								ISPR)	
0 1 4	.8137 MHZ	34.19	92 aB	μv	2	9.48	0/ 0	ы	W					-21	808	đВ	-10	0.04	3 GF	-				9.	JU KH	Z	ISPR)	1
、 					_	_	1011	_				_				_	_	_			_		_	_	_	_	>	-
ISG																	STAT	rus	<u>L</u> D	CC	oup	led						1

Plot 7-269. Line Conducted Plot with 802.11a UNII Band 2C (L1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 234 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 234 01 246
© 2017 PCTEST Engineering La	aboratory, Inc.			V 6.

12/26/2016



Agilent EMI Re	ceiver - Frequ	Jency S	can																							
X/ RL	RF PRESEL 5	0Ω <u>Λ</u> Γ)C	CORR	EC					SENSE	INT			A	.IGN /	AUTO							1:	L:44:33	3 AM Ja	in 02, 201
Freq (Met	ters) 28.6 CISPR	5320		/IHz can-Se	earc		cret as	te	F)	REQU tten: 1		/ SCA	N	5/	can /5 ree l	Run							т	RACE TYPE DET	123 M\\V PPP
10 dB/div	Ref 96	6.99 d	IBµ\	1																M	kr	1 2				MHz dBµ∨
Log 87.0																										*
77.0																										
67.0 57.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~																								
47.0																										
	l Ing ^{Nu} ur	ľ ".v	Ĵ₩{j,	ակեր		ใงพ	₩₩	₩.	N. A.		wi iii	(Ň.		n al all					ali papa Ti papa	line (m) military (m)		
17.0 6.99																							· / /			
Start 150 Res BW 9											٧B١	N 90) kHz	2					D٧	vel	I T	ime	96			30 MH 4 kHz
SIG TRC	FREQ		PD AMP					ИРТС			OFF		-	PD LL1			VG LL				OFF				RB\	
	54.00 kHz	34.35						Bμ						.428			.598			-						SPR)
	66.00 kHz	33.48 36.26						IBµ'						.670 (.029									SPR) SPR)
	25.99 kHz	36.62						Bu						.931 0			.455									SPR)
	.5617 MHz	31.69	96 dB	μV	2	8.29	0 d	IBμ	V					.304 0		-17	.710	dB					9.0	0 kH	z (Cl	SPR)
5 🔲 1 4	.8097 MHz	32.55	53 dB	μV	2	8.59	2 d	Bμ	V				-23	.447 (lΒ	-17	.408	dB					9.0	0 kH	z (Cl	SPR)
<u> </u>			_				11		_			_				_		_	_	_	_	_	_	_	_	>
g DC Coupled																										

Plot 7-270. Line Conducted Plot with 802.11a UNII Band 2C (N)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 225 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 235 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	·		V 6.1

12/26/2016



Agile	ent EMI F	Receiver - Free	quency	Scan																						
LXI	RL	RF PRESEL	50 Ω 🛝	DC	CORR	EC					SENSE	:INT			ALIC	GNAUT	0						11:5	52:03 AI	M Jan 02, 20:	17
Fre	eq (M	eters) 28. CISPE	6320	92 N	AHz can-Si	earcl		scret eas	e	Ģ		REQUI		SCAN	1	Scar 5/5 Free		n						TY	CE 123 PE M WWW ET P P P	
	dB/div	Ref 9	6.99	dBµ\	1															Μ	kr1	2			22 MH: I dBµ\	
Log 87.1																									*	
77.																										
67.I																										
47.1			<u> </u>			_		+	+							-										
37.) 27.)	լ Պտր		ſ Ŵ	, ^{ju} uj	n Mu	t.	W	ų,	W		(Jul			h iyi		a Ádj <mark>Milli</mark>	X	n Hin side Trave i La P		der der Ter state	l ar ad L ^a r by	uluru Macu		il techt		-
17.) 6.9																		F	l _b				na <mark>bhe</mark>	^{il} luurilli ⁱ	alless a finde	
	urt 15(s BW											VBV	N 90	kHz					D	wei	 Ti	me	96.0		p 30 Mi (# 4 kH;	
SIG	TRC	FREQ	0	PD AMP	PTD	1	AV	'G AM	IPTD	- 1		OFF		Q	PD LL1 A		AVG	LL2 Δ			OFF				RBW	^
1	1	154.00 kHz	35.1	04 dE	υV	3	2.16	51 d	Bu\	/				-30	678 dE	3 -2	3.62	20 dE	3 -				9.00	kHz (CISPR)	
2		313.99 kHz		35 dB					Bµ\						330 dE			24 dE							CISPR)	
3	1	3.2858 MHz	z 35.3	62 dB	βµV	2	9.02	28 d	Βµ\	/				-20	.638 dE	3 -1	6.97	<mark>/2 d</mark> E	3 -						CISPR)	1
4	1	4.2177 MHz		87 dE					Bµ\					-23	.913 dE			l1 dE							CISPR)	
5	1	4.5777 MHz							Bμ\						.177 dE)5 dE							CISPR)	ŀ
6	1	4.7457 MHz	z 32.2	41 dB	βµV	2	7.29	99 d	Bμ\	/				-23	.759 dE	3 -1	8.70)1 dE	3 -				9.00	kHz	CISPR)	~
<			_		_	_		111	_	_	_		_			_		_	_	_	_	_	_	_	>	J
MSG																STA	TUS	🔔 D	C Co	pupl	ed					
																	_									

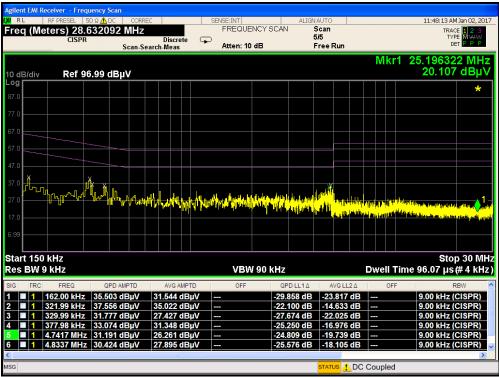
Plot 7-271. Line Conducted Plot with 802.11a UNII Band 3 (L1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 226 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 236 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	•		V 6.1

12/26/2016



Line-Conducted Test Data <u>§15.407</u>



Plot 7-272. Line Conducted Plot with 802.11a UNII Band 3 (N)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 237 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 237 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.

12/26/2016



8.0 CONCLUSION

The data collected relate only the item(s) tested and show that the LG Portable Handset FCC ID: ZNFH871 is in compliance with Part 15E of the FCC Rules.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	💽 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 238 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 236 01 246
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.

12/26/2016



APPENDIX A. 802.11A DUAL TX

A.1 Summary

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
TRANSMITTER M	ODE (TX)		-		
15.407 (a.1)	Maximum Conducted Output Power	< 250mW (23.98dBm) (5150-5250MHz) < 250mW (5250-5350MHz) < 250mW (5470-5725MHz) < 1W (30dBm) (5725-5850MHz)	CONDUCTED	PASS	Section A.2
15.407 (a.1), (5)	Maximum Power Spectral Density	< 11 dBm/MHz (5150-5250MHz, 5250- 5350MHz, 5470-5725MHz) < 30 dBm/500kHz (5725-5850MHz)		PASS	Section A.3
15.205, 15.407(b.1),(5),(6)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	RADIATED	PASS	Section A.4

Notes:

1) This device employs dual transmission in 802.11a and 802.11g modes using Cyclic Delay Diversity. For all

1) This device employs dual transmission in 802.11a and 802.11g modes using Cyclic Delay Diversity. For all test cases, the device was set to transmit from both antennas simultaneously. The data in this section demonstrates compliance to the dual-transmission requirements specified in KDB 662911 v02r01.

Table A.1-1. Summary of Test Results

- 2) All data found in this section is compiled from plots found in the main body of this test report.
- Since this device is able to transmit the same data through both of its antennas in a given symbol period, then, by the definition specified in KDB 662911 v02r01 Section F)1), the transmission symbols are correlated.
- 4) Since two antennas are supported in this device and a minimum of N_{ss} = 1 antenna can operate at any given time, the maximum array gain for two correlated signals is 10log₁₀(N_{ant}/N_{ss}) = 3dB, where N_{ss} is the number of spatial streams and N_{ant} is the total number of antennas.
- 5) For conducted spurious emissions, per KDB 662911 v02r01 Section E)3)b), the emissions on each individual output complied with its corresponding relative limit for that output, so additional testing was not required for dual transmission operation.

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 220 of 248	
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 239 of 248	
© 2017 PCTEST Engineering La	boratory, Inc.			V 6.1	

12/26/2016

^{© 2015} PCTEST Engineering Laboratory, Inc. All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from PCTEST Engineering Laboratory, Inc. If you have any questions about this international copyright or have an enquiry about obtaining additional rights to this report or assembly of contents thereor, please contact INFO@PCTESTLAB.COM.



A.2 Output Power Measurement §15.247(b.3)

Test Overview

Using the "Measure and Sum" technique, the measured conducted power values were summed in linear power units then converted back to dBm. Original measured values are found in Section 7.4 of this report.

			5GHz (20MHz) Conducted	Power [dBm]
Freq [MHz]	Channel	Detector	IEEE 1	Fransmission	Mode
			ANT1	ANT2	CDD
5180	36	AVG	12.37	12.21	15.30
5200	40	AVG	16.18	15.96	19.08
5220	44	AVG	16.11	15.85	18.99
5240	48	AVG	16.04	15.97	19.02
5260	52	AVG	16.01	15.71	18.87
5280	56	AVG	15.89	15.76	18.84
5300	60	AVG	16.05	15.71	18.89
5320	64	AVG	12.02	11.88	14.96
5500	100	AVG	12.25	12.33	15.30
5580	116	AVG	15.86	15.85	18.87
5660	132	AVG	15.83	16.10	18.98
5720	144	AVG	15.76	15.63	18.71
5745	149	AVG	16.36	16.44	19.41
5785	157	AVG	15.95	16.06	19.02
5825	165	AVG	12.27	11.51	14.92

Table A2-1. Dual Tx 802.11a-mode Conducted Output Power Measurements

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 240 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 240 of 248
© 2017 PCTEST Engineering La	boratory, Inc.	·		V 6.1

12/26/2016



A.3 Power Spectral Density §15.247(e)

Test Overview

Using the "Measure and Sum" technique, the measured conducted power density values were summed in linear power units then converted back to dBm. Original measured values are found in Section 7.5 of this report.

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]			Max Permissible Power Density [dBm/MHz]	Margin [dB]	Pass / Fail
-	5180	36	а	6	1.40	1.15	4.29	11.0	-6.71	Pass
Band	5200	40	а	6	5.16	5.42	8.30	11.0	-2.70	Pass
ä	5240	48	а	6	5.19	5.29	8.25	11.0	-2.75	Pass
2A	5260	52	а	6	5.03	4.71	7.89	11.0	-3.11	Pass
Band	5280	56	а	6	4.89	4.98	7.95	11.0	-3.05	Pass
Ba	5320	64	а	6	1.47	1.22	4.36	11.0	-6.64	Pass
2C	5500	100	а	6	1.62	1.84	4.74	11.0	-6.26	Pass
Band	5580	116	а	6	5.30	5.81	8.57	11.0	-2.43	Pass
Ba	5720	144	а	6	5.30	4.49	7.93	11.0	-3.07	Pass

Table A3-1.802.11a Dual Tx Conducted Power Density Measurements

	Frequency [MHz]	Channel No.	802.11 Mode	Data Rate [Mbps]	Antenn-1 Power Density [dBm]			Max Permissible Power Density [dBm/500kHz]	Margin [dB]	Pass / Fail
с	5745	149	а	6	3.10	2.11	5.64	30.0	-24.36	Pass
pue	5785	157	а	6	3.35	2.23	5.84	30.0	-24.16	Pass
ä	5825	165	а	6	-0.70	-1.40	1.97	30.0	-28.03	Pass

Table A3-2.802.11a Dual Tx Conducted Power Density Measurements

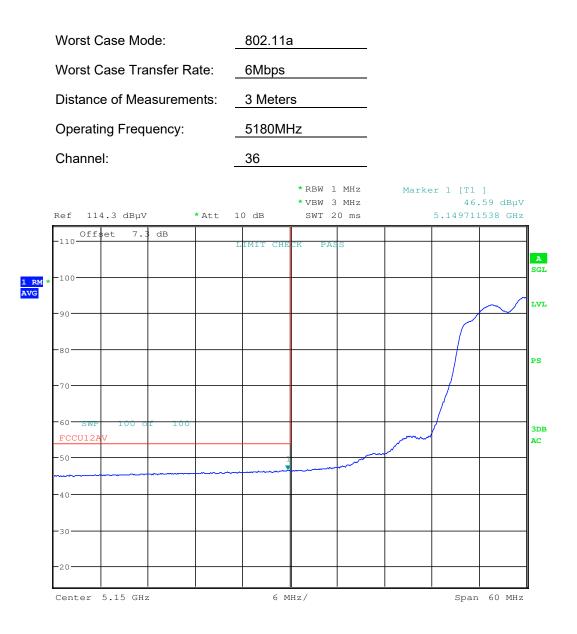
FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 241 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 241 of 248
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016



A.4 Dual Tx Radiated Restricted Band Edge Measurements §15.205 §15.209

The radiated restricted band edge measurements are measured with an EMI test receiver connected to the receive antenna while the EUT is transmitting on both outputs in 802.11a mode.



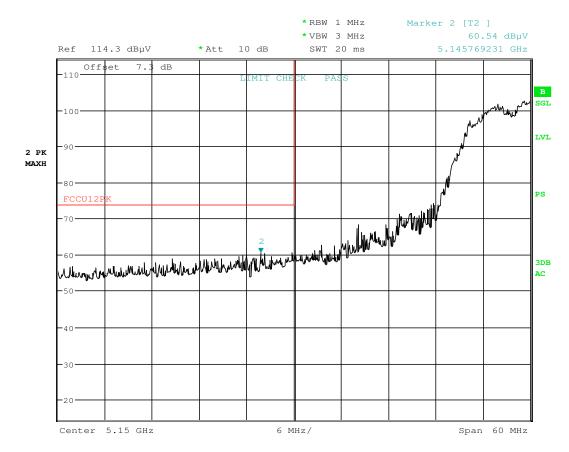
Date: 31.JAN.2017 14:29:32



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 242 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 242 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





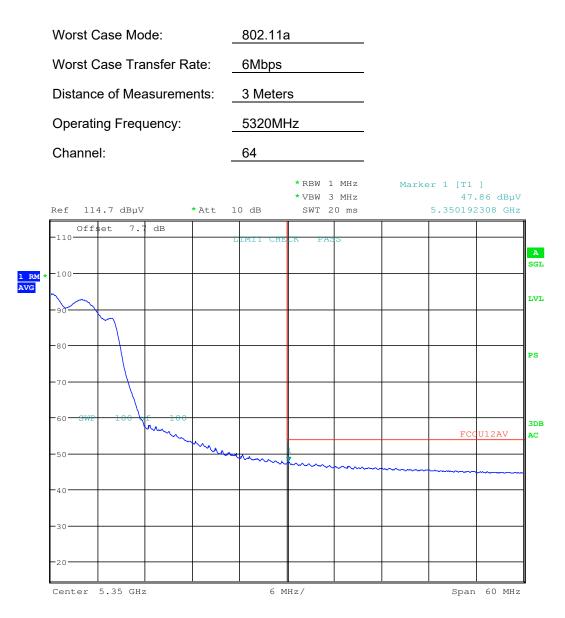
Date: 31.JAN.2017 14:29:49

Plot A.2-2. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 1)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Demo 242 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 243 of 248
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





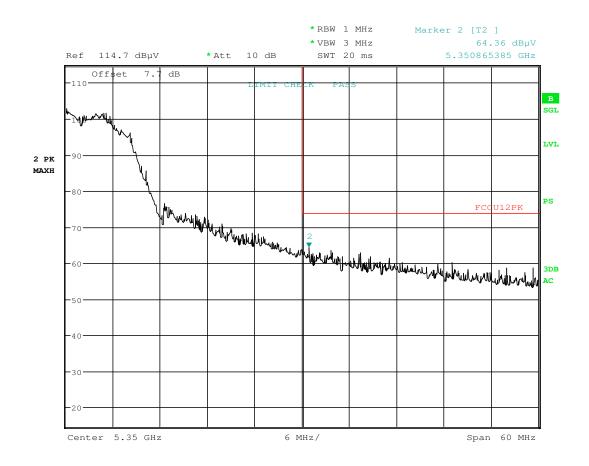
Date: 31.JAN.2017 14:43:29

Plot A.2-3. Radiated Restricted Upper Band Edge Plot (Average – UNII Band 2A)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 244 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 244 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





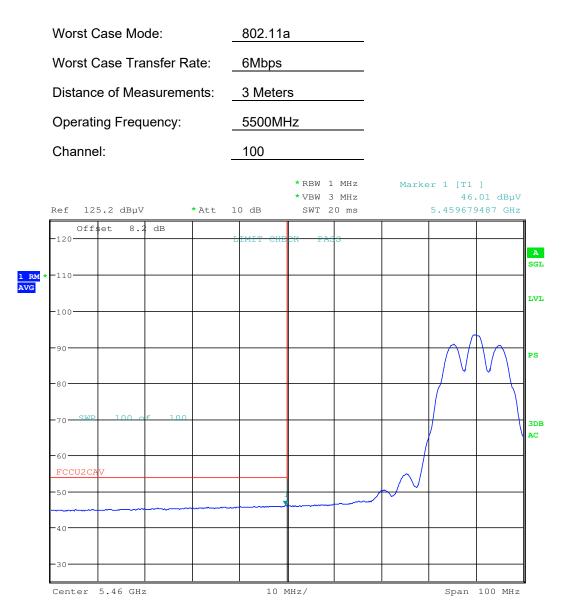
Date: 31.JAN.2017 14:44:11



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 245 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 245 01 246
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





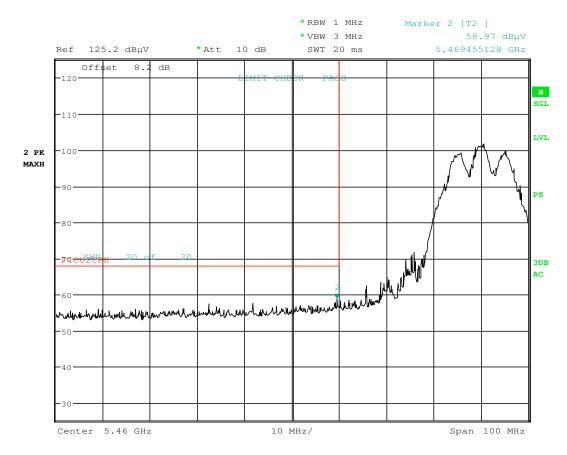
Date: 31.JAN.2017 14:48:48

Plot A.2-5. Radiated Restricted Lower Band Edge Plot (Average – UNII Band 2C)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 246 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 246 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				V 6.1

12/26/2016





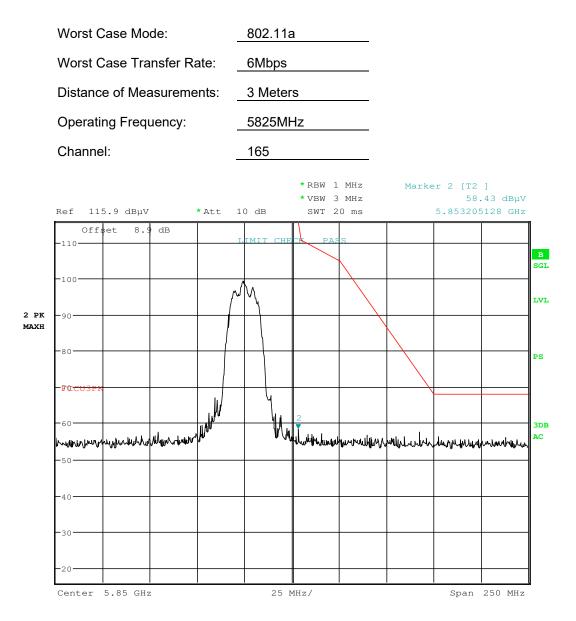
Date: 31.JAN.2017 14:49:32



FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 247 of 248
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 247 01 246
© 2017 PCTEST Engineering Laboratory, Inc.			V 6.1	

12/26/2016





Date: 31.JAN.2017 14:54:49

Plot A.2-7. Radiated Upper Band Edge Plot (Peak – UNII Band 3)

FCC ID: ZNFH871		FCC Pt. 15.407 802.11a/n/ac UNII MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 249 of 249
1M1701180032-05-R3.ZNF	12/27/2016 - 2/15/2017	Portable Handset		Page 248 of 248
© 2017 PCTEST Engineering Laboratory, Inc.				

12/26/2016