

APPENDIX G: LTE LOWER BANDWIDTH RF CONDUCTED POWERS

Note: Some bands do not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

G.1 LTE Lower Bandwidth RF Conducted Powers
G.1.1 LTE-M Band 12

LTE Band 12 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	NB Index	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]	
				23035 (701.5 MHz)	23095 (707.5 MHz)	23155 (713.5 MHz)			
				Conducted Power [dBm]					
QPSK	1	0	0	22.69	22.65	22.72	0-1	0	
	1	0	1	22.63	22.64	22.53		0	
	1	5	3	22.72	22.67	22.69		0	
	3	0	0	21.91	21.79	21.95		1	
	3	0	1	21.80	21.78	21.71		1	
	3	3	3	21.98	21.92	21.83		1	
	6	0	0	21.82	21.89	21.90		1	
	6	0	1	21.76	21.86	21.87		1	
	6	0	3	21.88	21.81	21.81		1	
16QAM	1	0	0	22.83	22.72	22.73	0-1	0	
	1	0	1	22.84	22.78	22.98		0	
	1	5	3	22.75	22.82	22.67		0	
		3	0	0	21.82	21.70	21.74	0-2	1
		3	0	1	21.65	21.65	21.69		1
		3	3	3	21.73	21.72	21.71		1
		5	0	0	20.72	20.84	20.94		2
		5	0	1	20.75	20.82	20.82		2
		5	1	3	20.82	20.77	20.82		2

LTE Band 12 3 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB Index	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	23.11	23.11	23.02	0	0
	1	5	1	23.06	22.99	22.94		0
	3	0	0	22.05	22.03	22.06	0-1	1
	3	3	1	22.04	22.00	22.04		1
	6	0	0	21.08	21.04	20.98	0-2	2
	6	0	1	21.06	21.07	21.07		2
16QAM	1	0	0	21.68	21.78	21.62	0-1	1
	1	5	1	21.67	21.57	21.55		1
	3	0	0	20.96	20.86	20.89	0-2	2
	3	3	1	20.98	20.86	20.88		2
	5	0	0	20.84	20.78	20.92		2
	5	1	1	20.84	20.78	20.90		2

LTE Band 12 1.4 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB Index	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.90	22.89	22.86	0	0
	1	2	0	23.15	23.12	23.08		0
	1	5	0	22.89	22.94	22.87		0
	3	0	0	22.09	22.02	22.03	0-1	1
	3	1	0	21.94	22.03	21.98		1
	3	3	0	22.01	22.08	22.02		1
	6	0	0	21.14	20.99	21.07	0-2	2
16QAM	1	0	0	21.68	21.77	21.62	0-1	1
	1	2	0	21.85	21.90	21.72		1
	1	5	0	21.73	21.64	21.60		1
	3	0	0	20.94	20.91	20.98	0-2	2
	3	1	0	21.25	21.08	21.16		2
	3	3	0	20.96	20.92	20.97		2
	5	0	0	20.84	20.81	20.87		2
	5	1	0	20.83	20.80	20.87		2

Table G-4
LTE-M Band 4 Ant 1 Measured – 15 MHz Bandwidth

LTE Band 4 15 MHz Bandwidth						
Modulation	RB Size	RB Offset	NB Position	Mid Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				20175 (1732.5 MHz)		
				Conducted Power [dBm]		
QPSK	1	0	1	22.54	0	0
	1	0	5	22.50		0
	1	5	10	22.54		0
	3	0	1	22.58		0
	3	0	5	22.63		0
	3	3	10	22.57		0
	6	0	1	22.50		0
	6	0	5	22.51		0
16QAM	6	0	10	22.49		0
	1	0	1	22.76		0
	1	0	5	22.78		0
	1	5	10	22.81		0
	3	0	1	22.38		0
	3	0	5	22.42		0
	3	3	10	22.43		0
	5	0	1	22.48		0
	5	0	5	22.44		0
	5	1	10	22.43		0

Table G-5
LTE-M Band 4 Ant 1 Measured – 10 MHz Bandwidth

LTE Band 4 10 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB Position	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				20000 (1715.0 MHz)	20175 (1732.5 MHz)	20350 (1750.0 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	1	22.43	22.31	22.34	0	0
	1	0	3	22.34	22.22	22.27		0
	1	5	6	22.35	22.41	22.46		0
	3	0	1	22.39	22.46	22.49		0
	3	0	3	22.33	22.38	22.37		0
	3	3	6	22.43	22.58	22.54		0
	6	0	1	21.46	21.50	21.50	0-1	1
	6	0	3	21.37	21.42	21.33		1
16QAM	6	0	6	21.49	21.48	21.48		1
	1	0	1	22.72	22.63	22.71	0	0
	1	0	3	22.64	22.54	22.64		0
	1	5	6	22.67	22.67	22.69		0
	3	0	1	22.33	22.34	22.45		0
	3	0	3	22.26	22.26	22.37		0
	3	3	6	22.39	22.44	22.42		0-2
	5	0	1	21.36	21.38	21.49	1	
	5	0	3	21.29	21.31	21.30	1	
		5	1	6	21.42	21.48	21.48	

Table G-6
LTE-M Band 4 Ant 1 Measured – 5 MHz Bandwidth

LTE Band 4 5 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB position	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				19975 (1712.5 MHz)	20175 (1732.5 MHz)	20375 (1752.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.32	22.26	22.33	0-1	0
	1	0	1	22.25	22.27	22.25		0
	1	5	3	22.31	22.35	22.37		0
	3	0	0	21.50	21.56	21.45		1
	3	0	1	21.33	21.46	21.40		1
	3	3	3	21.39	21.49	21.51		1
	6	0	0	21.44	21.52	21.42		1
	6	0	1	21.42	21.39	21.36		1
	6	0	3	21.43	21.44	21.44		1
16QAM	1	0	0	22.41	22.56	22.44	0-1	0
	1	0	1	22.44	22.57	22.47		0
	1	5	3	22.47	22.51	22.52		0
	3	0	0	21.36	21.29	21.44		1
	3	0	1	21.34	21.33	21.38		1
	3	3	3	21.28	21.37	21.49		1
	5	0	0	20.35	20.42	20.51	0-2	2
	5	0	1	20.31	20.35	20.32		2
	5	1	3	20.34	20.51	20.43		2

Table G-7
LTE-M Band 4 Ant 1 Measured – 3 MHz Bandwidth

LTE Band 4 3 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB Position	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				19965 (1711.5 MHz)	20175 (1732.5 MHz)	20385 (1753.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.41	22.53	22.62	0	0
	1	5	1	22.58	22.55	22.63		0
	3	0	0	21.51	21.60	21.57	0-1	1
	3	3	1	21.53	21.58	21.64		1
	6	0	0	20.43	20.46	20.57	0-2	2
	6	0	1	20.56	20.44	20.59		2
16QAM	1	0	0	21.16	21.24	21.23	0-1	1
	1	5	1	21.18	21.25	21.13		1
	3	0	0	20.38	20.43	20.43	0-2	2
	3	3	1	20.39	20.32	20.48		2
	5	0	0	20.28	20.31	20.38		2
	5	1	1	20.27	20.30	20.36		2

Table G-8
LTE-M Band 4 Ant 1 Measured – 1.4 MHz Bandwidth

LTE Band 4 1.4 MHz Bandwidth								
Modulation	RB Size	RB Offset	NB Position	Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				19957 (1710.7 MHz)	20175 (1732.5 MHz)	20393 (1754.3 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.57	22.58	22.72	0	0
	1	2	0	22.69	22.74	22.83		0
	1	5	0	22.49	22.61	22.60		0
	3	0	0	21.49	21.49	21.60	0-1	1
	3	1	0	21.45	21.58	21.57		1
	3	3	0	21.50	21.59	21.63		1
	6	0	0	20.43	20.49	20.58	0-2	2
16QAM	1	0	0	21.20	21.33	21.20	0-1	1
	1	2	0	21.36	21.45	21.19		1
	1	5	0	21.22	21.34	21.18		1
	3	0	0	20.41	20.41	20.48	0-2	2
	3	1	0	20.53	20.62	20.44		2
	3	3	0	20.41	20.36	20.49		2
	5	0	0	20.29	20.23	20.50		2
	5	1	0	20.29	20.22	20.37		2

G.1.3 LTE-M Band 2

Table G-9
LTE-M Band 2 Ant 1 Measured – 15 MHz Bandwidth

LTE Band 2 15 MHz Bandwidth								
Modulation	RB Size	RB Offset		Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			NB	18675 (1857.5 MHz)	18900 (1880.0 MHz)	19125 (1902.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	1	22.76	22.61	22.59	0	0
	1	0	5	22.80	22.70	22.54		0
	1	5	10	22.79	22.69	22.51		0
	3	0	1	22.90	22.73	22.56		0
	3	0	5	22.93	22.75	22.75		0
	3	3	10	22.81	22.73	22.54		0
	6	0	1	22.83	22.72	22.60		0
	6	0	5	22.79	22.74	22.59		0
	6	0	10	22.73	22.65	22.57		0
16QAM	1	0	1	23.08	22.95	22.82		0
	1	0	5	22.98	23.03	22.85		0
	1	5	10	23.03	22.94	22.77		0
	3	0	1	22.75	22.75	22.55		0
	3	0	5	22.73	22.76	22.59		0
	3	3	10	22.69	22.63	22.58		0
	5	0	1	22.80	22.61	22.66		0
	5	0	5	22.89	22.67	22.57		0
	5	1	10	22.75	22.62	22.51		0

Table G-10 LTE-M Band 2 Ant 1 Measured – 10 MHz Bandwidth								
LTE Band 2 10 MHz Bandwidth								
Modulation	RB Size	RB Offset		Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
				18650 (1855.0 MHz)	18900 (1880.0 MHz)	19150 (1905.0 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	1	22.74	22.66	22.54	0	0
	1	0	3	22.60	22.51	22.40		0
	1	5	6	22.78	22.66	22.35		0
	3	0	1	22.87	22.78	22.65		0
	3	0	3	22.74	22.64	22.54		0
	3	3	6	22.88	22.75	22.56		0
	6	0	1	21.90	21.80	21.60	0-1	1
	6	0	3	21.75	21.64	21.47		1
	6	0	6	21.88	21.71	21.52		1
16QAM	1	0	1	23.03	22.88	22.80	0	0
	1	0	3	22.89	22.78	22.70		0
	1	5	6	22.97	22.92	22.79		0
	3	0	1	22.79	22.65	22.46		0
	3	0	3	22.67	22.52	22.38		0
	3	3	6	22.69	22.67	22.37		0
	5	0	1	21.83	21.71	21.57	0-2	1
	5	0	3	21.67	21.56	21.46		1
	5	1	6	21.84	21.75	21.51		1

Table G-11 LTE-M Band 2 Ant 1 Measured – 5 MHz Bandwidth								
LTE Band 2 5 MHz Bandwidth								
Modulation	RB Size	RB Offset		Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			NB	18625 (1852.5 MHz)	18900 (1880.0 MHz)	19175 (1907.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.71	22.55	22.40	0-1	0
	1	0	1	22.63	22.50	22.29		0
	1	5	3	22.68	22.52	22.31		0
	3	0	0	21.92	21.80	21.65		1
	3	0	1	21.76	21.76	21.59		1
	3	3	3	21.89	21.72	21.45		1
	6	0	0	21.86	21.71	21.49		1
	6	0	1	21.82	21.65	21.54		1
	6	0	3	21.83	21.68	21.52	1	
16QAM	1	0	0	22.88	22.78	22.59	0-1	0
	1	0	1	22.93	22.82	22.62		0
	1	5	3	22.87	22.77	22.52		0
	3	0	0	21.78	21.63	21.47		1
	3	0	1	21.71	21.58	21.41		1
	3	3	3	21.75	21.59	21.39		1
	5	0	0	20.85	20.72	20.61	0-2	2
	5	0	1	20.88	20.65	20.53		2
	5	1	3	20.89	20.79	20.53		2

Table G-12 LTE-M Band 2 Ant 1 Measured – 3 MHz Bandwidth								
LTE Band 2 3 MHz Bandwidth								
Modulation	RB Size	RB Offset		Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			NB	18615 (1851.5 MHz)	18900 (1880.0 MHz)	19185 (1908.5 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	22.88	22.86	22.63	0	0
	1	5	1	22.96	22.72	22.62		0
	3	0	0	22.01	21.84	21.61	0-1	1
	3	3	1	21.20	21.85	21.58		1
	6	0	0	20.98	20.68	20.59	0-2	2
	6	0	1	20.93	20.79	20.57		2
16QAM	1	0	0	21.59	21.52	21.29	0-1	1
	1	5	1	21.60	21.52	21.26		1
	3	0	0	20.84	20.75	20.54	0-2	2
	3	3	1	20.83	20.74	20.51		2
	5	0	0	20.73	20.55	20.29		2
	5	1	1	20.79	20.63	20.38		2

Table G-13			
FCC ID:	IPH-05242	RF EXPOSURE TEST REPORT	Approved by: Technical Manager
DUT Type: Watch	This report is Blockchain Verified. To verify the report authenticity, please visit HTTPS://WWW.BLOCKCHAIN-VERIFIED.COM or by clicking on the Blockchain logo.		APPENDIX G Page 4 of 5

LTE-M Band 2 Ant 1 Measured – 1.4 MHz Bandwidth								
LTE Band 2 1.4 MHz Bandwidth								
Modulation	RB Size	RB Offset		Low Channel	Mid Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			NB	18607 (1850.7 MHz)	18900 (1880.0 MHz)	19193 (1909.3 MHz)		
				Conducted Power [dBm]				
QPSK	1	0	0	23.06	22.89	22.72	0	0
	1	2	0	23.19	23.01	22.84		0
	1	5	0	22.95	22.78	22.64		0
	3	0	0	22.05	21.86	21.61	0-1	1
	3	1	0	22.02	21.81	21.56		1
	3	3	0	22.08	21.87	21.62		1
	6	0	0	21.01	20.78	20.59	0-2	2
16QAM	1	0	0	21.75	21.54	21.34	0-1	1
	1	2	0	21.86	21.64	21.28		1
	1	5	0	21.74	21.55	21.32		1
	3	0	0	20.86	20.76	20.55	0-2	2
	3	1	0	21.07	20.98	20.51		2
	3	3	0	20.85	20.76	20.49		2
	5	0	0	20.87	20.56	20.56		2
	5	1	0	20.86	20.57	20.37		2