

LTE Band 41

LTE Band 41 20MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4788452485 Date: 2018-04-28 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_QPSK Band 41 Harmonics, 20MHz Bandwidth									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 2506MHz 5012.00 -14.0 V 3.0 43.8 1.0 -56.7 -25.0 -31.7 7518.00 -2.4 V 3.0 42.5 1.0 -43.9 -25.0 -18.9 10024.00 -3.3 V 3.0 40.6 1.0 -42.9 -25.0 -17.9 12530.00 -0.3 V 3.0 41.6 1.0 -40.9 -25.0 -15.9 15036.00 1.3 V 3.0 43.7 1.0 -41.3 -25.0 -16.3 5012.00 -11.3 H 3.0 43.8 1.0 -54.1 -25.0 -29.1 7518.00 -1.8 H 3.0 42.5 1.0 -43.2 -25.0 -18.2 10024.00 -5.7 H 3.0 40.6 1.0 -45.3 -25.0 -20.3 12530.00 -5.4 H 3.0 41.6 1.0 -46.1 -25.0 -21.1 15036.00 -7.3 H 3.0 43.7 1.0 -50.0 -25.0 -25.0									
	Mid Ch, 2593MHz 5186.00 -8.3 V 3.0 43.8 1.0 -51.0 -25.0 -26.0 7779.00 -6.4 V 3.0 42.3 1.0 -47.8 -25.0 -22.8 10372.00 -0.2 V 3.0 40.7 1.0 -39.8 -25.0 -14.8 12965.00 1.2 V 3.0 42.0 1.0 -39.8 -25.0 -14.8 15558.00 -7.7 V 3.0 43.0 1.0 -49.7 -25.0 -24.7 5186.00 -12.3 H 3.0 43.8 1.0 -55.1 -25.0 -30.1 7779.00 -13.2 H 3.0 42.3 1.0 -54.5 -25.0 -29.5 10372.00 -9.2 H 3.0 40.7 1.0 -48.9 -25.0 -23.9 12965.00 -4.8 H 3.0 42.0 1.0 -45.8 -25.0 -20.8 15558.00 -7.3 H 3.0 43.0 1.0 -49.4 -25.0 -24.4									
LTE Band 41 20MHz 16QAM	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4788452485 Date: 2018-04-27 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_16QAM Band 41 Harmonics, 20MHz Bandwidth									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 2506MHz 5012.00 -13.0 V 3.0 43.8 1.0 -55.8 -25.0 -30.8 7518.00 -6.0 V 3.0 42.5 1.0 -47.4 -25.0 -22.4 10024.00 -1.3 V 3.0 40.6 1.0 -40.9 -25.0 -15.9 12530.00 0.1 V 3.0 41.6 1.0 -40.6 -25.0 -15.6 15036.00 -0.1 V 3.0 43.7 1.0 -42.8 -25.0 -17.8 5012.00 -12.0 H 3.0 43.8 1.0 -54.8 -25.0 -29.8 7518.00 -7.7 H 3.0 42.5 1.0 -49.2 -25.0 -24.2 10024.00 -5.1 H 3.0 40.6 1.0 -44.6 -25.0 -19.6 12530.00 -8.0 H 3.0 41.6 1.0 -48.6 -25.0 -23.6 15036.00 -7.5 H 3.0 43.7 1.0 -50.1 -25.0 -25.1									
	Mid Ch, 2593MHz 5186.00 -8.8 V 3.0 43.8 1.0 -51.6 -25.0 -26.6 7779.00 -5.9 V 3.0 42.3 1.0 -47.2 -25.0 -22.2 10372.00 0.4 V 3.0 40.7 1.0 -39.3 -25.0 -14.3 12965.00 1.5 V 3.0 42.0 1.0 -39.5 -25.0 -14.5 15558.00 -7.2 V 3.0 43.0 1.0 -49.2 -25.0 -24.2 5186.00 -11.7 H 3.0 43.8 1.0 -54.5 -25.0 -29.5 7779.00 -12.9 H 3.0 42.3 1.0 -54.2 -25.0 -29.2 10372.00 -9.1 H 3.0 40.7 1.0 -48.7 -25.0 -23.7 12965.00 -5.5 H 3.0 42.0 1.0 -46.5 -25.0 -21.5 15558.00 -7.3 H 3.0 43.0 1.0 -49.4 -25.0 -24.4									
	High Ch, 2680MHz 5360.00 -11.2 V 3.0 43.7 1.0 -53.9 -25.0 -28.9 8040.00 -4.0 V 3.0 42.2 1.0 -45.2 -25.0 -20.2 10720.00 -1.3 V 3.0 40.8 1.0 -41.1 -25.0 -16.1 13400.00 -0.3 V 3.0 42.4 1.0 -41.6 -25.0 -16.6 16080.00 -10.6 V 3.0 42.4 1.0 -52.1 -25.0 -27.1 5360.00 -8.5 H 3.0 43.7 1.0 -52.2 -25.0 -27.2 8040.00 -11.7 H 3.0 42.2 1.0 -52.8 -25.0 -27.8 10720.00 -8.5 H 3.0 40.8 1.0 -49.2 -25.0 -24.2 13400.00 -6.4 H 3.0 42.4 1.0 -47.7 -25.0 -22.7 16080.00 -8.2 H 3.0 42.4 1.0 -49.6 -25.0 -24.6									

Page 110 of 120

LTE Band 41 10MHz QPSK	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4788452485 Date: 2018-05-01 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_QPSK Band 41 Harmonics, 10MHz Bandwidth									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 2501MHz 5002.00 -11.3 V 3.0 43.8 1.0 -54.1 -25.0 -29.1 7503.00 -5.2 V 3.0 42.5 1.0 -46.6 -25.0 -21.6 10004.00 -3.1 V 3.0 40.6 1.0 -42.6 -25.0 -17.6 12505.00 -1.5 V 3.0 41.6 1.0 -42.1 -25.0 -17.1 15006.00 -4.4 V 3.0 43.7 1.0 -47.1 -25.0 -22.1 5002.00 -10.8 H 3.0 43.8 1.0 -53.6 -25.0 -28.6 7503.00 -8.7 H 3.0 42.5 1.0 -50.2 -25.0 -25.2 10004.00 -5.2 H 3.0 40.6 1.0 -44.7 -25.0 -19.7 12505.00 -2.3 H 3.0 41.6 1.0 -42.9 -25.0 -17.9 15006.00 -7.1 H 3.0 43.7 1.0 -49.8 -25.0 -24.8									
	Mid Ch, 2593MHz 5186.00 -8.5 V 3.0 43.8 1.0 -51.2 -25.0 -26.2 7779.00 -7.6 V 3.0 42.3 1.0 -48.9 -25.0 -23.9 10372.00 -14.2 V 3.0 40.7 1.0 -53.9 -25.0 -28.9 12965.00 0.2 V 3.0 42.0 1.0 -40.8 -25.0 -15.8 15558.00 -9.9 V 3.0 43.0 1.0 -51.9 -25.0 -26.9 5186.00 -10.7 H 3.0 43.8 1.0 -53.5 -25.0 -28.5 7779.00 -7.7 H 3.0 42.3 1.0 -49.0 -25.0 -24.0 10372.00 -8.0 H 3.0 40.7 1.0 -47.7 -25.0 -22.7 12965.00 -1.6 H 3.0 42.0 1.0 -42.6 -25.0 -17.6 15558.00 -8.0 H 3.0 43.0 1.0 -50.0 -25.0 -25.0									
LTE Band 41 10MHz 16QAM	UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement Company: Samsung Project #: 4788452485 Date: 2018-05-01 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_16QAM Band 41 Harmonics, 10MHz Bandwidth									
	f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
	Low Ch, 2501MHz 5002.00 -10.6 V 3.0 43.8 1.0 -53.4 -25.0 -28.4 7503.00 -4.0 V 3.0 42.5 1.0 -45.5 -25.0 -20.5 10004.00 -2.8 V 3.0 40.6 1.0 -42.3 -25.0 -17.3 12505.00 -1.0 V 3.0 41.6 1.0 -41.6 -25.0 -16.6 15006.00 -3.6 V 3.0 43.7 1.0 -46.3 -25.0 -21.3 5002.00 -9.7 H 3.0 43.8 1.0 -52.5 -25.0 -27.5 7503.00 -7.9 H 3.0 42.5 1.0 -49.4 -25.0 -24.4 10004.00 -4.4 H 3.0 40.6 1.0 -43.9 -25.0 -18.9 12505.00 -2.3 H 3.0 41.6 1.0 -43.0 -25.0 -18.0 15006.00 -7.4 H 3.0 43.7 1.0 -50.1 -25.0 -25.1									
	Mid Ch, 2593MHz 5186.00 -9.3 V 3.0 43.8 1.0 -52.1 -25.0 -27.1 7779.00 -6.9 V 3.0 42.3 1.0 -48.2 -25.0 -23.2 10372.00 -15.1 V 3.0 40.7 1.0 -54.8 -25.0 -29.8 12965.00 0.7 V 3.0 42.0 1.0 -40.3 -25.0 -15.3 15558.00 -9.8 V 3.0 43.0 1.0 -51.9 -25.0 -26.9 5186.00 -11.0 H 3.0 43.8 1.0 -53.8 -25.0 -28.8 7779.00 -7.8 H 3.0 42.3 1.0 -49.1 -25.0 -24.1 10372.00 -7.5 H 3.0 40.7 1.0 -47.2 -25.0 -22.2 12965.00 -1.2 H 3.0 42.0 1.0 -42.2 -25.0 -17.2 15558.00 -8.3 H 3.0 43.0 1.0 -50.4 -25.0 -25.4									
	High Ch, 2685MHz 5370.00 -9.7 V 3.0 43.7 1.0 -52.4 -25.0 -27.4 8055.00 -3.8 V 3.0 42.2 1.0 -45.0 -25.0 -20.0 10740.00 1.3 V 3.0 40.8 1.0 -38.5 -25.0 -13.5 13425.00 -0.7 V 3.0 42.4 1.0 -42.1 -25.0 -17.1 16110.00 -11.5 V 3.0 42.4 1.0 -52.8 -25.0 -27.8 5370.00 -10.7 H 3.0 43.7 1.0 -53.5 -25.0 -28.5 8055.00 -6.5 H 3.0 42.2 1.0 -47.7 -25.0 -22.7 10740.00 -3.2 H 3.0 40.8 1.0 -43.0 -25.0 -18.0 13425.00 -2.1 H 3.0 42.4 1.0 -43.5 -25.0 -18.5 16110.00 -9.1 H 3.0 42.4 1.0 -50.5 -25.0 -25.5									

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement											
		Company: Samsung Project #: 4788452485 Date: 2018-05-01 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_QPSK Band 41 Harmonics, 5MHz Bandwidth											
LTE	Band 41	5MHz	QPSK										
				f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
				Low Ch, 2498.5MHz									
				4997.00	-10.3	V	3.0	43.8	1.0	-53.1	-25.0	-28.1	
				7495.50	-5.7	V	3.0	42.5	1.0	-47.2	-25.0	-22.2	
				9994.00	-1.7	V	3.0	40.6	1.0	-41.2	-25.0	-16.2	
				12492.50	-2.1	V	3.0	41.6	1.0	-42.7	-25.0	-17.7	
				14991.00	-6.6	V	3.0	43.7	1.0	-49.3	-25.0	-24.3	
				4997.00	-7.3	H	3.0	43.8	1.0	-50.1	-25.0	-25.1	
				7495.50	-9.6	H	3.0	42.5	1.0	-51.1	-25.0	-26.1	
				9994.00	-3.5	H	3.0	40.6	1.0	-43.0	-25.0	-18.0	
				12492.50	-3.2	H	3.0	41.6	1.0	-43.8	-25.0	-18.8	
				14991.00	-7.5	H	3.0	43.7	1.0	-50.2	-25.0	-25.2	
				Mid Ch, 2593MHz									
				5186.00	-11.0	V	3.0	43.8	1.0	-53.8	-25.0	-28.8	
				7779.00	-8.0	V	3.0	42.3	1.0	-49.3	-25.0	-24.3	
				10372.00	-0.3	V	3.0	40.7	1.0	-39.9	-25.0	-14.9	
				12965.00	-1.5	V	3.0	42.0	1.0	-42.5	-25.0	-17.5	
				15558.00	-10.6	V	3.0	43.0	1.0	-52.6	-25.0	-27.6	
				5186.00	-11.6	H	3.0	43.8	1.0	-54.3	-25.0	-29.3	
				7779.00	-9.1	H	3.0	42.3	1.0	-50.4	-25.0	-25.4	
				10372.00	-10.0	H	3.0	40.7	1.0	-49.7	-25.0	-24.7	
				12965.00	-2.8	H	3.0	42.0	1.0	-43.8	-25.0	-18.8	
				15558.00	-8.4	H	3.0	43.0	1.0	-50.5	-25.0	-25.5	
				High Ch, 2687.5MHz									
				5375.00	-9.3	V	3.0	43.7	1.0	-52.0	-25.0	-27.0	
				8062.50	-4.0	V	3.0	42.2	1.0	-45.2	-25.0	-20.2	
				10750.00	0.8	V	3.0	40.8	1.0	-39.0	-25.0	-14.0	
				13437.50	-1.6	V	3.0	42.4	1.0	-43.0	-25.0	-18.0	
				16125.00	-11.4	V	3.0	42.4	1.0	-52.7	-25.0	-27.7	
				5375.00	-10.7	H	3.0	43.7	1.0	-53.4	-25.0	-28.4	
				8062.50	-10.9	H	3.0	42.2	1.0	-52.0	-25.0	-27.0	
				10750.00	-9.0	H	3.0	40.8	1.0	-48.8	-25.0	-23.8	
				13437.50	-2.2	H	3.0	42.4	1.0	-43.6	-25.0	-18.6	
				16125.00	-8.9	H	3.0	42.4	1.0	-50.3	-25.0	-25.3	

		UL Verification Services, Inc. Above 1GHz High Frequency Substitution Measurement											
		Company: Samsung Project #: 4788452485 Date: 2018-05-01 Test Engineer: 45585 Configuration: EUT / Adapter / Earphone, X-Position Location: Chamber 1 Mode: LTE_16QAM Band 41 Harmonics, 5MHz Bandwidth											
LTE	Band 41	5MHz	16QAM										
				f MHz	SG reading (dBm)	Ant. Pol. (H/V)	Distance (m)	Preamp (dB)	Filter (dB)	EIRP (dBm)	Limit (dBm)	Delta (dB)	Notes
				Low Ch, 2498.5MHz									
				4997.00	-10.9	V	3.0	43.8	1.0	-53.7	-25.0	-28.7	
				7495.50	-5.0	V	3.0	42.5	1.0	-46.5	-25.0	-21.5	
				9994.00	-2.4	V	3.0	40.6	1.0	-42.0	-25.0	-17.0	
				12492.50	-1.2	V	3.0	41.6	1.0	-41.8	-25.0	-16.8	
				14991.00	-6.1	V	3.0	43.7	1.0	-48.8	-25.0	-23.8	
				4997.00	-7.8	H	3.0	43.8	1.0	-50.6	-25.0	-25.6	
				7495.50	-10.7	H	3.0	42.5	1.0	-52.2	-25.0	-27.2	
				9994.00	-4.2	H	3.0	40.6	1.0	-43.7	-25.0	-18.7	
				12492.50	-2.7	H	3.0	41.6	1.0	-43.3	-25.0	-18.3	
				14991.00	-7.2	H	3.0	43.7	1.0	-49.9	-25.0	-24.9	
				Mid Ch, 2593MHz									
				5186.00	-10.6	V	3.0	43.8	1.0	-53.4	-25.0	-28.4	
				7779.00	-8.1	V	3.0	42.3	1.0	-49.5	-25.0	-24.5	
				10372.00	0.2	V	3.0	40.7	1.0	-39.4	-25.0	-14.4	
				12965.00	-1.3	V	3.0	42.0	1.0	-42.3	-25.0	-17.3	
				15558.00	-10.5	V	3.0	43.0	1.0	-52.5	-25.0	-27.5	
				5186.00	-11.4	H	3.0	43.8	1.0	-54.2	-25.0	-29.2	
				7779.00	-10.1	H	3.0	42.3	1.0	-51.4	-25.0	-26.4	
				10372.00	-6.9	H	3.0	40.7	1.0	-46.5	-25.0	-21.5	
				12965.00	-6.9	H	3.0	42.0	1.0	-47.9	-25.0	-22.9	
				15558.00	-8.6	H	3.0	43.0	1.0	-50.6	-25.0	-25.6	
				High Ch, 2687.5MHz									
				5375.00	-10.0	V	3.0	43.7	1.0	-52.8	-25.0	-27.8	
				8062.50	-4.4	V	3.0	42.2	1.0	-45.5	-25.0	-20.5	
				10750.00	0.6	V	3.0	40.8	1.0	-39.2	-25.0	-14.2	
				13437.50	-0.2	V	3.0	42.4	1.0	-41.6	-25.0	-16.6	
				16125.00	-11.6	V	3.0	42.4	1.0	-53.0	-25.0	-28.0	
				5375.00	-10.7	H	3.0	43.7	1.0	-53.4	-25.0	-28.4	
				8062.50	-12.2	H	3.0	42.2	1.0	-53.4	-25.0	-28.4	
				10750.00	-8.9	H	3.0	40.8	1.0	-48.7	-25.0	-23.7	
				13437.50	-3.0	H	3.0	42.4	1.0	-44.4	-25.0	-19.4	
				16125.00	-9.3	H	3.0	42.4	1.0	-50.6	-25.0	-25.6	