

MIMO SAR verification results

N41 UL-MIMO (Ant 9+1) DSI 2			
SISO Ant9 Plimit (dBm)	29.5	SISO Ant9 Pmax (dBm)	26.0
SISO Ant1 Plimit (dBm)	15.0	SISO Ant1 Pmax (dBm)	26.0
		MIMO Pmax (dBm)	27.5
Ptest (dBm)	15.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.60	Back off	0
Measured MIMO Ptest (dBm)	14.38	Measured MIMO SAR at meas. Ptest (W/kg)	0.349
Reported SAR _{MIMO}	0.507	Calc.SAR	0.782

N41 UL-MIMO (Ant 9+1) DSI 3			
SISO Ant9 Plimit (dBm)	18.0	SISO Ant9 Pmax (dBm)	26.0
SISO Ant1 Plimit (dBm)	15.5	SISO Ant1 Pmax (dBm)	26.0
		MIMO Pmax (dBm)	27.5
Ptest (dBm)	15.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.89	Back off	0
Measured MIMO Ptest (dBm)	14.66	Measured MIMO SAR at meas. Ptest (W/kg)	0.623
Reported SAR _{MIMO}	0.952	Calc.SAR	1.751

N41 UL-MIMO (Ant 2+6) DSI 2			
SISO Ant2 Plimit (dBm)	31.6	SISO Ant2 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	19.5	SISO Ant6 Pmax (dBm)	23.5
		MIMO Pmax (dBm)	25.8
Ptest (dBm)	19.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.70	Back off	0
Measured MIMO Ptest (dBm)	19.21	Measured MIMO SAR at meas. Ptest (W/kg)	0.522
Reported SAR _{MIMO}	0.703	Calc.SAR	0.936

N41 UL-MIMO (Ant 2+6) DSI 3			
SISO Ant2 Plimit (dBm)	22.0	SISO Ant2 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	18.0	SISO Ant6 Pmax (dBm)	23.5
		MIMO Pmax (dBm)	25.8
Ptest (dBm)	18.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.62	Back off	0
Measured MIMO Ptest (dBm)	18.12	Measured MIMO SAR at meas. Ptest (W/kg)	0.558
Reported SAR _{MIMO}	0.683	Calc.SAR	1.091

N48 UL-MIMO (Ant 4+7) DSI 2			
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	23.0
SISO Ant7 Plimit (dBm)	29.2	SISO Ant7 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	17.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.89	Back off	0
Measured MIMO Ptest (dBm)	17.44	Measured MIMO SAR at meas. Ptest (W/kg)	0.737
Reported SAR _{MIMO}	0.838	Calc.SAR	1.188

N48 UL-MIMO (Ant 4+7) DSI 3			
SISO Ant4 Plimit (dBm)	14.5	SISO Ant4 Pmax (dBm)	23.0
SISO Ant7 Plimit (dBm)	15.0	SISO Ant7 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	14.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.89	Back off	0
Measured MIMO Ptest (dBm)	14.18	Measured MIMO SAR at meas. Ptest (W/kg)	0.576
Reported SAR _{MIMO}	0.781	Calc.SAR	2.119

N48 UL-MIMO (Ant 10+8) DSI 2			
SISO Ant10 Plimit (dBm)	31.5	SISO Ant10 Pmax (dBm)	23.0
SISO Ant8 Plimit (dBm)	16.5	SISO Ant8 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	16.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.60	Back off	0
Measured MIMO Ptest (dBm)	16.46	Measured MIMO SAR at meas. Ptest (W/kg)	0.354
Reported SAR _{MIMO}	0.450	Calc.SAR	0.779

N48 UL-MIMO (Ant 10+8) DSI 3			
SISO Ant10 Plimit (dBm)	10.5	SISO Ant10 Pmax (dBm)	23.0
SISO Ant8 Plimit (dBm)	15.0	SISO Ant8 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	10.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.70	Back off	0
Measured MIMO Ptest (dBm)	10.66	Measured MIMO SAR at meas. Ptest (W/kg)	0.319
Reported SAR _{MIMO}	0.387	Calc.SAR	1.194

N77 UL-MIMO (Ant 4+7) DSI 2			
SISO Ant4 Plimit (dBm)	17.5	SISO Ant4 Pmax (dBm)	26.0
SISO Ant7 Plimit (dBm)	27.4	SISO Ant7 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	17.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.89	Back off	0
Measured MIMO Ptest (dBm)	17.55	Measured MIMO SAR at meas. Ptest (W/kg)	0.728
Reported SAR _{MIMO}	0.906	Calc.SAR	1.235

N77 UL-MIMO (Ant 4+7) DSI 3			
SISO Ant4 Plimit (dBm)	16.5	SISO Ant4 Pmax (dBm)	26.0
SISO Ant7 Plimit (dBm)	16.0	SISO Ant7 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	16.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.89	Back off	0
Measured MIMO Ptest (dBm)	16.22	Measured MIMO SAR at meas. Ptest (W/kg)	0.527
Reported SAR _{MIMO}	0.631	Calc.SAR	2.119

N77 UL-MIMO (Ant 10+8) DSI 2			
SISO Ant10 Plimit (dBm)	31.3	SISO Ant10 Pmax (dBm)	26.0
SISO Ant8 Plimit (dBm)	14.5	SISO Ant8 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	14.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.60	Back off	0
Measured MIMO Ptest (dBm)	14.13	Measured MIMO SAR at meas. Ptest (W/kg)	0.338
Reported SAR _{MIMO}	0.463	Calc.SAR	0.771

N77 UL-MIMO (Ant 10+8) DSI 3			
SISO Ant10 Plimit (dBm)	11.5	SISO Ant10 Pmax (dBm)	26.0
SISO Ant8 Plimit (dBm)	14.0	SISO Ant8 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	11.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.70	Back off	0
Measured MIMO Ptest (dBm)	11.22	Measured MIMO SAR at meas. Ptest (W/kg)	0.458
Reported SAR _{MIMO}	0.615	Calc.SAR	1.377

N41 UL-MIMO (Ant 9+1) DSI 6			
SISO Ant9 Plimit (dBm)	20.0	SISO Ant9 Pmax (dBm)	26.0
SISO Ant1 Plimit (dBm)	18.5	SISO Ant1 Pmax (dBm)	26.0
		MIMO Pmax (dBm)	27.5
Ptest (dBm)	18.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	2.00	Back off	0
Measured MIMO Ptest (dBm)	17.51	Measured MIMO SAR at meas. Ptest (W/kg)	1.630
Reported SAR _{MIMO}	2.577	Calc.SAR	4.300

N41 UL-MIMO (Ant 9+1) DSI 7			
SISO Ant9 Plimit (dBm)	14.5	SISO Ant9 Pmax (dBm)	26.0
SISO Ant1 Plimit (dBm)	14.0	SISO Ant1 Pmax (dBm)	26.0
		MIMO Pmax (dBm)	27.5
Ptest (dBm)	14.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.62	Back off	0
Measured MIMO Ptest (dBm)	13.67	Measured MIMO SAR at meas. Ptest (W/kg)	0.455
Reported SAR _{MIMO}	0.618	Calc.SAR	1.476

N41 UL-MIMO (Ant 2+6) DSI 6			
SISO Ant2 Plimit (dBm)	22.0	SISO Ant2 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	17.5	SISO Ant6 Pmax (dBm)	23.5
		MIMO Pmax (dBm)	25.8
Ptest (dBm)	17.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	1.60	Back off	0
Measured MIMO Ptest (dBm)	17.58	Measured MIMO SAR at meas. Ptest (W/kg)	1.610
Reported SAR _{MIMO}	1.990	Calc.SAR	2.729

N41 UL-MIMO (Ant 2+6) DSI 7			
SISO Ant2 Plimit (dBm)	20.5	SISO Ant2 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	14.5	SISO Ant6 Pmax (dBm)	23.5
		MIMO Pmax (dBm)	25.8
Ptest (dBm)	14.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.62	Back off	0
Measured MIMO Ptest (dBm)	14.63	Measured MIMO SAR at meas. Ptest (W/kg)	0.457
Reported SAR _{MIMO}	0.558	Calc.SAR	0.977

N48 UL-MIMO (Ant 4+7) DSI 6			
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	23.0
SISO Ant7 Plimit (dBm)	21.5	SISO Ant7 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	17.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	2.00	Back off	0
Measured MIMO Ptest (dBm)	17.58	Measured MIMO SAR at meas. Ptest (W/kg)	1.050
Reported SAR _{MIMO}	1.157	Calc.SAR	3.411

N48 UL-MIMO (Ant 4+7) DSI 7			
SISO Ant4 Plimit (dBm)	12.0	SISO Ant4 Pmax (dBm)	23.0
SISO Ant7 Plimit (dBm)	13.5	SISO Ant7 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	12.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.62	Back off	0
Measured MIMO Ptest (dBm)	12.48	Measured MIMO SAR at meas. Ptest (W/kg)	0.375
Reported SAR _{MIMO}	0.423	Calc.SAR	1.333

N48 UL-MIMO (Ant 10+8) DSI 6			
SISO Ant10 Plimit (dBm)	15.0	SISO Ant10 Pmax (dBm)	23.0
SISO Ant8 Plimit (dBm)	19.5	SISO Ant8 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	15.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	1.36	Back off	0
Measured MIMO Ptest (dBm)	15.33	Measured MIMO SAR at meas. Ptest (W/kg)	0.594
Reported SAR _{MIMO}	0.693	Calc.SAR	2.320

N48 UL-MIMO (Ant 10+8) DSI 7			
SISO Ant10 Plimit (dBm)	9.5	SISO Ant10 Pmax (dBm)	23.0
SISO Ant8 Plimit (dBm)	13.5	SISO Ant8 Pmax (dBm)	23.0
		MIMO Pmax (dBm)	24.5
Ptest (dBm)	9.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.50	Back off	0
Measured MIMO Ptest (dBm)	9.94	Measured MIMO SAR at meas. Ptest (W/kg)	0.241
Reported SAR _{MIMO}	0.274	Calc.SAR	0.880

N77 UL-MIMO (Ant 4+7) DSI 6			
SISO Ant4 Plimit (dBm)	17.5	SISO Ant4 Pmax (dBm)	26.0
SISO Ant7 Plimit (dBm)	21.5	SISO Ant7 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	17.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	2.00	Back off	0
Measured MIMO Ptest (dBm)	17.38	Measured MIMO SAR at meas. Ptest (W/kg)	0.723
Reported SAR _{MIMO}	0.936	Calc.SAR	3.520

N77 UL-MIMO (Ant 4+7) DSI 7			
SISO Ant4 Plimit (dBm)	14.0	SISO Ant4 Pmax (dBm)	26.0
SISO Ant7 Plimit (dBm)	14.5	SISO Ant7 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	14.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.62	Back off	0
Measured MIMO Ptest (dBm)	14.08	Measured MIMO SAR at meas. Ptest (W/kg)	0.560
Reported SAR _{MIMO}	0.692	Calc.SAR	1.476

N77 UL-MIMO (Ant 10+8) DSI 6			
SISO Ant10 Plimit (dBm)	15.0	SISO Ant10 Pmax (dBm)	26.0
SISO Ant8 Plimit (dBm)	18.5	SISO Ant8 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	15.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	1.36	Back off	0
Measured MIMO Ptest (dBm)	14.75	Measured MIMO SAR at meas. Ptest (W/kg)	0.707
Reported SAR _{MIMO}	0.943	Calc.SAR	2.477

N77 UL-MIMO (Ant 10+8) DSI 7			
SISO Ant10 Plimit (dBm)	10.5	SISO Ant10 Pmax (dBm)	26.0
SISO Ant8 Plimit (dBm)	12.5	SISO Ant8 Pmax (dBm)	22.0
		MIMO Pmax (dBm)	26.0
Ptest (dBm)	10.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.50	Back off	0
Measured MIMO Ptest (dBm)	10.08	Measured MIMO SAR at meas. Ptest (W/kg)	0.347
Reported SAR _{MIMO}	0.481	Calc.SAR	1.027



MIMO SAR Test results

System & Position										DUT & Accessory				Power						SAR				
Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Power Reduction	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Right Cheek	0mm	Ant 9+1(1)		DSI 2		518598	2592.99		14.38	16.00	1.452	1.000	1.000	-0.18	0.282	0.409		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Right Tilted	0mm	Ant 9+1(1)		DSI 2		518598	2592.99		14.38	16.00	1.452	1.000	1.000	0.15	0.349	0.507		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Cheek	0mm	Ant 2+6(6)		DSI 2		518598	2592.99		19.21	20.50	1.346	1.000	1.000	0.03	0.489	0.558		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Tilted	0mm	Ant 2+6(6)		DSI 2		518598	2592.99		19.21	20.50	1.346	1.000	1.000	0.03	0.522	0.703		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Right Cheek	0mm	Ant 4+7(4)		DSI 2		641666	3624.99		17.44	18.00	1.138	1.000	1.000	0.14	0.737	0.838		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Left Cheek	0mm	Ant 4+7(4)		DSI 2		641666	3624.99		17.44	18.00	1.138	1.000	1.000	-0.02	0.111	0.126		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Right Tilted	0mm	Ant 10+8(10)		DSI 2		641666	3624.99		16.46	17.50	1.271	1.000	1.000	0.17	0.343	0.436		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Left Tilted	0mm	Ant 10+8(10)		DSI 2		641666	3624.99		16.46	17.50	1.271	1.000	1.000	-0.19	0.354	0.450		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Right Cheek	0mm	Ant 4+7(4)		DSI 2		656000	3840		17.55	18.50	1.245	1.000	1.000	0.1	0.728	0.906		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Left Tilted	0mm	Ant 4+7(4)		DSI 2		656000	3840		17.55	18.50	1.245	1.000	1.000	-0.04	0.103	0.128		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Right Cheek	0mm	Ant 10+8(10)		DSI 2		656000	3840		14.13	15.50	1.371	1.000	1.000	-0.09	0.097	0.133		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Left Tilted	0mm	Ant 10+8(10)		DSI 2		656000	3840		14.13	15.50	1.371	1.000	1.000	0.07	0.338	0.463		0.000

Hotspot SAR Test

System & Position										DUT & Accessory				Power						SAR				
Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Power Reduction	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Right Side	5mm	Ant 9+1(1)		DSI 7		518598	2592.99		13.67	15.00	1.358	1.000	1.000	0	0.455	0.618		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Back	5mm	Ant 9+1(1)		DSI 7		518598	2592.99		13.67	15.00	1.358	1.000	1.000	0.15	0.447	0.607		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Side	5mm	Ant 2+6(6)		DSI 7		518598	2592.99		14.63	15.50	1.222	1.000	1.000	-0.13	0.457	0.558		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Side	5mm	Ant 2+6(6)		DSI 7		518598	2592.99		14.63	15.50	1.222	1.000	1.000	-0.14	0.446	0.545		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 4+7(4)		DSI 7		641666	3624.99		12.48	13.00	1.127	1.000	1.000	-0.09	0.317	0.357		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Left Side	5mm	Ant 4+7(4)		DSI 7		641666	3624.99		12.48	13.00	1.127	1.000	1.000	0.1	0.375	0.423		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 7		641666	3624.99		9.94	10.50	1.138	1.000	1.000	-0.13	0.241	0.274		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 7		641666	3624.99		9.94	10.50	1.138	1.000	1.000	-0.11	0.228	0.259		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	5mm	Ant 4+7(4)		DSI 7		656000	3840		14.08	15.00	1.236	1.000	1.000	0.16	0.507	0.627		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Left Side	5mm	Ant 4+7(4)		DSI 7		656000	3840		14.08	15.00	1.236	1.000	1.000	-0.18	0.560	0.692		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 7		656000	3840		10.08	11.50	1.367	1.000	1.000	0.07	0.347	0.481		0.000
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 7		656000	3840		10.08	11.50	1.367	1.000	1.000	-0.14	0.347	0.481		0.000

Extremity SAR Test

System & Position										DUT & Accessory				Power						SAR				
Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Power Reduction	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Right Side	0mm	Ant 9+1(1)		DSI 6		518598	2592.99		17.51	19.50	1.581	1.000	1.000	0.07	0.000	1.500	2.372	
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Top Side	0mm	Ant 9+1(1)		DSI 6		518598	2592.99		17.51	19.50	1.581	1.000	1.000	0.02	0.000	1.630	2.577	
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Side	0mm	Ant 2+6(6)		DSI 6		518598	2592.99		17.58	18.50	1.236	1.000	1.000	-0.15	0.000	1.610	1.990	
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Left Side	0mm	Ant 2+6(6)		DSI 6		518598	2592.99		17.58	18.50	1.236	1.000	1.000	0.05	0.000	1.570	1.940	
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	0mm	Ant 4+7(4)		DSI 6		641666	3624.99		17.58	18.00	1.102	1.000	1.000	-0.06	0.000	1.050	1.157	
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	0mm	Ant 4+7(4)		DSI 6		641666	3624.99		17.58	18.00	1.102	1.000	1.000	-0.08	0.000	1.030	1.135	
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	0mm	Ant 10+8(10)		DSI 6		641666	3624.99		15.33	16.00	1.167	1.000	1.000	0	0.000	0.594	0.693	
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Top Side	0mm	Ant 10+8(10)		DSI 6		641666	3624.99		15.33	16.00	1.167	1.000	1.000	0.15	0.000	0.394	0.460	
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	0mm	Ant 4+7(4)		DSI 6		656000	3840		17.38	18.50	1.294	1.000	1.000	0.12	0.000	0.697	0.902	
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	0mm	Ant 4+7(4)		DSI 6		656000	3840		17.38	18.50	1.294	1.000	1.000	-0.16	0.000	0.723	0.936	
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Back	0mm	Ant 10+8(10)		DSI 6		656000	3840		14.75	16.00	1.334	1.000	1.000	-0.11	0.000	0.631	0.841	
UL MIMO_FR1 n77	100M	QPSK	1	1	CP-30	Top Side	0mm	Ant 10+8(10)		DSI 6		656000	3840		14.75	16.00	1.334	1.000	1.000	-0.13	0.000	0.707	0.943	

Body worn SAR Test

System & Position										DUT & Accessory				Power						SAR				
Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Power Reduction	Ch.	Freq. (MHz)	Sample	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Back	5mm	Ant 9+1(1)		DSI 3		518598	2592.99		14.66	16.50	1.528	1.000	1.000	-0.01	0.623	0.952		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Back	5mm	Ant 9+1(1)		DSI 3		518598	2592.99		14.66	16.50	1.528	1.000	1.000	0.09	0.621	0.949		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Back	5mm	Ant 2+6(6)		DSI 3		518598	2592.99		18.12	19.00	1.225	1.000	1.000	-0.13	0.558	0.883		0.000
UL MIMO_FR1 n41	100M	QPSK	1	1	CP-30	Back	5mm	Ant 2+6(6)		DSI 3		518598	2592.99		18.12	19.00	1.225	1.000	1.000	0.11	0.554	0.878		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 4+7(4)		DSI 3		641666	3624.99		14.18	15.50	1.355	1.000	1.000	-0.01	0.576	0.781		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 4+7(4)		DSI 3		641666	3624.99		14.18	15.50	1.355	1.000	1.000	0.15	0.561	0.760		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 3		641666	3624.99		10.66	11.50	1.213	1.000	1.000	-0.11	0.319	0.387		0.000
UL MIMO_FR1 n48	40M	QPSK	1	1	CP-30	Back	5mm	Ant 10+8(10)		DSI 3		641666	3624.99		10.66	11.50	1.213	1.000						



MIMO SAR conducted power

UL MIMO_N48 DSI 2				Ant 4			Ant 7			Ant 4+7		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	17.38	17.44	17.31	17.85	17.93	17.88	20.63	20.70	20.61

UL MIMO_N48(HPUE) DSI 2				Ant 10			Ant 8			Ant 10+8		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	16.78	16.82	16.66	16.38	16.46	16.42	19.59	19.65	19.55

UL MIMO_N48 DSI 3				Ant 4			Ant 7			Ant 4+7		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	14.10	14.18	14.03	14.57	14.65	14.60	17.35	17.43	17.33

UL MIMO_N48(HPUE) DSI 3				Ant 10			Ant 8			Ant 10+8		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	10.52	10.66	10.48	10.67	10.69	10.58	13.61	13.69	13.54

UL MIMO_N48 DSI 6				Ant 4			Ant 7			Ant 4+7		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	17.38	17.58	17.31	17.85	17.93	17.88	20.63	20.77	20.61

UL MIMO_N48(HPUE) DSI 6				Ant 10			Ant 8			Ant 10+8		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	15.00	15.33	14.96	15.15	15.17	15.06	18.09	18.26	18.02

UL MIMO_N48 DSI 7				Ant 4			Ant 7			Ant 4+7		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	12.10	12.48	12.03	12.57	12.65	12.60	15.35	15.59	15.33

UL MIMO_N48(HPUE) DSI 7				Ant 10			Ant 8			Ant 10+8		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power Middle Ch. / Freq.
Channel				638000	641666	645332	638000	641666	645332	638000	641666	645332
Frequency (MHz)				3570	3624.99	3679.98	3570	3624.99	3679.98	3570	3624.99	3679.98
100	QPSK	1	1	9.79	9.94	9.75	9.94	9.96	9.85	12.88	12.96	12.81



UL MIMO_n41 DSI 2				Ant 9			Ant 1			Ant 9+1		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	14.79	14.81	14.67	14.35	14.38	14.29	17.59	17.61	17.49

UL MIMO_n41 DSI 2				Ant 2			Ant 6			Ant 2+6		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	19.54	19.60	19.52	19.08	19.21	19.13	22.33	22.42	22.34

UL MIMO_n41 DSI 3				Ant 9			Ant 1			Ant 9+1		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	15.26	15.28	15.14	14.51	14.65	14.55	17.91	17.99	17.87

UL MIMO_n41 DSI 3				Ant 2			Ant 6			Ant 2+6		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	18.53	18.59	18.51	18.07	18.12	18.12	21.32	21.37	21.33

UL MIMO_n41 DSI 6				Ant 9			Ant 1			Ant 9+1		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	18.05	18.07	17.93	17.30	17.51	17.34	20.70	20.81	20.66

UL MIMO_n41 DSI 6				Ant 2			Ant 6			Ant 2+6		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	18.00	18.06	17.98	17.45	17.58	17.50	20.74	20.84	20.76

UL MIMO_n41 DSI 7				Ant 9			Ant 1			Ant 9+1		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	14.19	14.21	14.07	13.44	13.67	13.48	16.84	16.96	16.80

UL MIMO_n41 DSI 7				Ant 2			Ant 6			Ant 2+6		
BW (MHz)	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				509202	518598	528000	509202	518598	528000	509202	518598	528000
Frequency (MHz)				2546.01	2592.99	2640	2546.01	2592.99	2640	2546.01	2592.99	2640
100	QPSK	1	1	15.05	15.11	15.03	14.50	14.63	14.55	17.79	17.89	17.81

