

MIMO SAR verification results

Bluetooth (Ant15+7) DS11 Head			
SISO Ant15 Plimit (dBm)	16.0	SISO Ant15 Pmax (dBm)	17.5
SISO Ant7 Plimit (dBm)	15.5	SISO Ant7 Pmax (dBm)	17.0
Ptest (dBm)	15.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	15.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.276
Reported SAR _{MIMO}	0.390	Calc.SAR	2.084

Bluetooth (Ant15+7) DS15 Hotspot			
SISO Ant15 Plimit (dBm)	16.0	SISO Ant15 Pmax (dBm)	17.5
SISO Ant7 Plimit (dBm)	15.5	SISO Ant7 Pmax (dBm)	17.0
Ptest (dBm)	15.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	15.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.222
Reported SAR _{MIMO}	0.314	Calc.SAR	2.084

Bluetooth (Ant15+7) DS14 Body-worn			
SISO Ant15 Plimit (dBm)	16.0	SISO Ant15 Pmax (dBm)	17.5
SISO Ant7 Plimit (dBm)	15.5	SISO Ant7 Pmax (dBm)	17.0
Ptest (dBm)	15.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	15.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.051
Reported SAR _{MIMO}	0.072	Calc.SAR	2.084

MIMO SAR verification results

N7 UL-MIMO (Ant5+4) DS11- Head

SISO Ant5 Plimit (dBm)	18.0	SISO Ant5 Pmax (dBm)	25.5
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.712
Reported SAR _{MIMO}	1.006	Calc. SAR	1.977

N7 UL-MIMO (Ant5+7) DS11- Head

SISO Ant5 Plimit (dBm)	18.0	SISO Ant5 Pmax (dBm)	25.5
SISO Ant7 Plimit (dBm)	18.5	SISO Ant7 Pmax (dBm)	23.8
Ptest (dBm)	18.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	18.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.571
Reported SAR _{MIMO}	0.807	Calc. SAR	2.084

N7 UL-MIMO (Ant5+4) DS15- Hotspot

SISO Ant5 Plimit (dBm)	18.0	SISO Ant5 Pmax (dBm)	25.5
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.288
Reported SAR _{MIMO}	0.407	Calc. SAR	1.977

N7 UL-MIMO (Ant5+7) DS15- Hotspot

SISO Ant5 Plimit (dBm)	18.0	SISO Ant5 Pmax (dBm)	25.5
SISO Ant7 Plimit (dBm)	19.0	SISO Ant7 Pmax (dBm)	23.8
Ptest (dBm)	18.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	18.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.235
Reported SAR _{MIMO}	0.332	Calc. SAR	1.977

N7 UL-MIMO (Ant5+4) DS14- Head

SISO Ant5 Plimit (dBm)	25.5	SISO Ant5 Pmax (dBm)	25.5
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	19.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.240
Reported SAR _{MIMO}	0.339	Calc. SAR	1.348

N7 UL-MIMO (Ant5+7) DS14-Body-worn

SISO Ant5 Plimit (dBm)	25.5	SISO Ant5 Pmax (dBm)	25.5
SISO Ant7 Plimit (dBm)	20.0	SISO Ant7 Pmax (dBm)	23.8
Ptest (dBm)	20.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	20.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.281
Reported SAR _{MIMO}	0.397	Calc. SAR	1.412

N38 UL-MIMO (Ant5+4) DS11- Head

SISO Ant5 Plimit (dBm)	17.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant4 Plimit (dBm)	18.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.713
Reported SAR _{MIMO}	1.007	Calc. SAR	2.084

N38 UL-MIMO (Ant5+7) DS11- Head

SISO Ant5 Plimit (dBm)	17.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant7 Plimit (dBm)	18.5	SISO Ant7 Pmax (dBm)	23.6
Ptest (dBm)	17.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.501
Reported SAR _{MIMO}	0.708	Calc. SAR	1.977

N38 UL-MIMO (Ant5+4) DS15- Hotspot

SISO Ant5 Plimit (dBm)	17.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant4 Plimit (dBm)	18.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.239
Reported SAR _{MIMO}	0.338	Calc. SAR	2.084

N38 UL-MIMO (Ant5+7) DS15- Hotspot

SISO Ant5 Plimit (dBm)	17.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant7 Plimit (dBm)	18.5	SISO Ant7 Pmax (dBm)	23.6
Ptest (dBm)	17.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.206
Reported SAR _{MIMO}	0.291	Calc. SAR	1.977

N38 UL-MIMO (Ant5+4) DS14- Body-worn

SISO Ant5 Plimit (dBm)	25.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant4 Plimit (dBm)	19.5	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	19.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.406
Reported SAR _{MIMO}	0.573	Calc. SAR	1.379

N38 UL-MIMO (Ant5+7) DS14- Body-worn

SISO Ant5 Plimit (dBm)	25.5	SISO Ant5 Pmax (dBm)	25.7
SISO Ant7 Plimit (dBm)	20.0	SISO Ant7 Pmax (dBm)	23.6
Ptest (dBm)	20.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	20.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.288
Reported SAR _{MIMO}	0.407	Calc. SAR	1.412

N41 UL-MIMO (Ant5+4) DS1I- Head

SISO Ant5 Plimit (dBm)	17.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.779
Reported SAR _{MIMO}	1.100	Calc. SAR	2.204

N41 UL-MIMO (Ant5+7) DS1I- Head

SISO Ant5 Plimit (dBm)	17.0	SISO Ant5 Plimit (dBm)	26.0
SISO Ant7 Plimit (dBm)	19.5	SISO Ant7 Plimit (dBm)	23.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.529
Reported SAR _{MIMO}	0.747	Calc. SAR	1.721

N41 UL-MIMO (Ant5+4) DSIS- Hotspot

SISO Ant5 Plimit (dBm)	17.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	17.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.369
Reported SAR _{MIMO}	0.521	Calc. SAR	2.204

N41 UL-MIMO (Ant5+7) DSIS- Hotspot

SISO Ant5 Plimit (dBm)	17.0	SISO Ant5 Plimit (dBm)	26.0
SISO Ant7 Plimit (dBm)	19.5	SISO Ant7 Plimit (dBm)	23.7
Ptest (dBm)	17.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.250
Reported SAR _{MIMO}	0.353	Calc. SAR	1.721

N41 UL-MIMO (Ant5+4) DS14- Body-worn

SISO Ant5 Plimit (dBm)	25.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	24.7
Ptest (dBm)	19.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.348
Reported SAR _{MIMO}	0.492	Calc. SAR	1.379

N41 UL-MIMO (Ant5+7) DS14- Body-worn

SISO Ant5 Plimit (dBm)	25.0	SISO Ant5 Plimit (dBm)	26.0
SISO Ant7 Plimit (dBm)	19.5	SISO Ant7 Plimit (dBm)	23.7
Ptest (dBm)	19.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.372
Reported SAR _{MIMO}	0.525	Calc. SAR	1.412

N77 UL-MIMO (Ant5+4) DS11- Head

SISO Ant5 Plimit (dBm)	15.5	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	15.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	15.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.790
Reported SAR _{MIMO}	0.995	Calc. SAR	1.585

N77 UL-MIMO (Ant10+4) DS11- Head

SISO Ant10 Plimit (dBm)	24.0	SISO Ant10 Pmax (dBm)	25.7
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.413
Reported SAR _{MIMO}	0.583	Calc. SAR	1.450

N77 UL-MIMO (Ant5+4) DS15- Hotspot

SISO Ant5 Plimit (dBm)	14.5	SISO Ant5 Pmax (dBm)	25.3
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	14.5	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	14.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.274
Reported SAR _{MIMO}	0.387	Calc. SAR	1.493

N77 UL-MIMO (Ant10+4) DS15- Hotspot

SISO Ant10 Plimit (dBm)	20.5	SISO Ant10 Pmax (dBm)	24.9
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.446
Reported SAR _{MIMO}	0.630	Calc. SAR	1.882

N77 UL-MIMO (Ant5+4) DS14- Body-worn

SISO Ant5 Plimit (dBm)	24.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	20.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	20.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	20.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.259
Reported SAR _{MIMO}	0.326	Calc. SAR	1.531

N77 UL-MIMO (Ant10+4) DS14- Body-worn

SISO Ant10 Plimit (dBm)	24.0	SISO Ant10 Pmax (dBm)	25.7
SISO Ant4 Plimit (dBm)	20.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	20.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	20.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.170
Reported SAR _{MIMO}	0.240	Calc. SAR	1.540

N78 UL-MIMO (Ant5+4) DS11- Head

SISO Ant5 Plimit (dBm)	16.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	16.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	16.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.722
Reported SAR _{MIMO}	0.909	Calc SAR	1.644

N78 UL-MIMO (Ant10+4) DS11- Head

SISO Ant10 Plimit (dBm)	25.5	SISO Ant10 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.416
Reported SAR _{MIMO}	0.526	Calc SAR	1.340

N78 UL-MIMO (Ant5+4) DS15- Hotspot

SISO Ant5 Plimit (dBm)	16.0	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	16.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	16.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.277
Reported SAR _{MIMO}	0.349	Calc SAR	1.644

N78 UL-MIMO (Ant10+4) DS15- Hotspot

SISO Ant10 Plimit (dBm)	23.0	SISO Ant10 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.0	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	19.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.376
Reported SAR _{MIMO}	0.473	Calc SAR	1.531

N78 UL-MIMO (Ant5+4) DS14- Body-worn

SISO Ant5 Plimit (dBm)	23.5	SISO Ant5 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.5	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	19.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.280
Reported SAR _{MIMO}	0.352	Calc SAR	1.531

N78 UL-MIMO (Ant10+4) DS14- Body-worn

SISO Ant10 Plimit (dBm)	25.5	SISO Ant10 Pmax (dBm)	26.0
SISO Ant4 Plimit (dBm)	19.5	SISO Ant4 Pmax (dBm)	26.0
Ptest (dBm)	19.5	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	19.50	Measured MIMO SAR at meas. Ptest (W/kg)	0.219
Reported SAR _{MIMO}	0.276	Calc SAR	1.370

Head SAR Test																				
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	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)
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5+4(5)	DSI 1	507000	2535	17.83	18.00	1.040		1.000	0.08	0.488	0.507
Other PA	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Cheek	0mm	Ant 5+4(4)	DSI 1	507000	2535	17.10	18.20	1.288		1.000	0.01	0.712	0.917
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 5+7(5)	DSI 1	507000	2535	17.83	18.00	1.040		1.000	0.03	0.571	0.594
Other PA	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Cheek	0mm	Ant 5+7(7)	DSI 1	507000	2535	18.78	19.80	1.265		1.000	-0.08	0.304	0.384
Main PA	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5+4(5)	DSI 1	519000	2595	17.39	17.70	1.074		1.000	-0.08	0.733	0.787
Other PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(4)	DSI 1	519000	2595	17.95	19.20	1.334		1.000	0.1	0.713	0.951
Main PA	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5+7(5)	DSI 1	519000	2595	17.39	17.70	1.074		1.000	-0.18	0.501	0.538
Other PA	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5+7(7)	DSI 1	519000	2595	18.33	19.10	1.194		1.000	0.1	0.272	0.325
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5+4(5)	DSI 1	518598	2592.99	17.11	17.50	1.094		1.000	0.12	0.712	0.779
Other PA	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(4)	DSI 1	518598	2592.99	16.78	18.20	1.387		1.000	0.08	0.779	1.080
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5+7(5)	DSI 1	518598	2592.99	17.11	17.50	1.094		1.000	-0.17	0.529	0.579
Other PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5+7(7)	DSI 1	518598	2592.99	19.36	20.20	1.213		1.000	-0.03	0.283	0.343
Main PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(5)	DSI 1	633334	3500.01	15.66	16.50	1.213		1.000	0.14	0.790	0.959
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(4)	DSI 1	633334	3500.01	19.07	19.50	1.104		1.000	0.11	0.790	0.872
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10+4(10)	DSI 1	633334	3500.01	23.94	25.70	1.500		1.000	-0.05	0.413	0.619
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10+4(4)	DSI 1	633334	3500.01	19.07	19.50	1.104		1.000	0.18	0.413	0.456
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(5)	DSI 1	633334	3500.01	16.16	16.50	1.081		1.000	0.14	0.722	0.781
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5+4(4)	DSI 1	633334	3500.01	19.15	19.50	1.084		1.000	-0.17	0.722	0.783
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10+4(10)	DSI 1	633334	3500.01	25.67	26.00	1.079		1.000	0.17	0.418	0.451
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 10+4(4)	DSI 1	633334	3500.01	19.15	19.50	1.084		1.000	-0.05	0.418	0.453
	Bluetooth					1Mbps	Right Tilted	0mm	Ant15+7(15)	Full power	39	2441	16.22	17.50	1.343	76.93	1.083	0.01	0.276	0.401
	Bluetooth					1Mbps	Left Cheek	0mm	Ant15+7(7)	Full power	0	2402	15.77	17.00	1.327	77.02	1.082	0.1	0.127	0.182

Hotspot SAR Test																				
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	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)
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 5+4(5)	DSI 5	507000	2535	17.83	18.00	1.040		1.000	0.08	0.288	0.299
Other PA	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Left Side	10mm	Ant 5+4(4)	DSI 5	507000	2535	17.10	18.20	1.288		1.000	0.01	0.288	0.371
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-15KHz	Top Side	10mm	Ant 5+7(5)	DSI 5	507000	2535	17.83	18.00	1.040		1.000	0.03	0.235	0.244
Other PA	FR1 n7	50M	QPSK	135	68	DFT-SCS-15KHz	Right Side	10mm	Ant 5+7(7)	DSI 5	507000	2535	18.78	19.80	1.265		1.000	-0.08	0.170	0.215
Main PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+4(5)	DSI 5	519000	2595	17.42	17.70	1.067		1.000	-0.08	0.239	0.255
Other PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5+4(4)	DSI 5	519000	2595	17.95	19.20	1.334		1.000	0.1	0.172	0.229
Main PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+7(5)	DSI 5	519000	2595	17.42	17.70	1.067		1.000	-0.18	0.206	0.220
Other PA	FR1 n38	40M	QPSK	50	28	DFT-SCS-30KHz	Right Side	10mm	Ant 5+7(7)	DSI 5	519000	2595	18.33	19.10	1.194		1.000	0.1	0.184	0.220
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+4(5)	DSI 5	518598	2592.99	17.11	17.50	1.094		1.000	0.12	0.171	0.187
Other PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5+4(4)	DSI 5	518598	2592.99	16.85	18.20	1.365		1.000	0.08	0.369	0.504
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+7(5)	DSI 5	518598	2592.99	17.11	17.50	1.094		1.000	-0.17	0.250	0.273
Other PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	10mm	Ant 5+7(7)	DSI 5	518598	2592.99	19.36	20.20	1.213		1.000	-0.03	0.128	0.155
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+4(5)	DSI 5	633334	3500.01	14.25	15.80	1.429		1.000	0.14	0.218	0.311
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5+4(4)	DSI 5	633334	3500.01	19.07	19.50	1.104		1.000	0.11	0.274	0.303
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10+4(10)	DSI 5	633334	3500.01	20.53	22.20	1.469		1.000	-0.05	0.282	0.414
Other PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10+4(4)	DSI 5	633334	3500.01	19.07	19.50	1.104		1.000	0.18	0.446	0.492
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	10mm	Ant 5+4(5)	DSI 5	633334	3500.01	16.16	16.50	1.081		1.000	0.14	0.214	0.231
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 5+4(4)	DSI 5	633334	3500.01	19.15	19.50	1.084		1.000	-0.17	0.277	0.300
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	10mm	Ant 10+4(10)	DSI 5	633334	3500.01	23.10	23.50	1.096		1.000	0.17	0.354	0.388
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	10mm	Ant 10+4(4)	DSI 5	633334	3500.01	19.15	19.50	1.084		1.000	-0.05	0.376	0.408
Bluetooth						1Mbps	Top Side	10mm	Ant15+7(15)	Full power	39	2441	16.22	17.50	1.343	76.93	1.083	0.01	0.222	0.323
Bluetooth						1Mbps	Right Side	10mm	Ant15+7(7)	Full power	0	2402	15.77	17.00	1.327	77.02	1.082	0.1	0.112	0.161

Body-worn SAR Test																				
Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	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)
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-19KHz	Back	15mm	Ant 5+4(5)	DSI 4	507000	2535	25.36	25.50	1.033		1.000	0.08	0.240	0.248
Other PA	FR1 n7	50M	QPSK	135	68	DFT-SCS-19KHz	Back	15mm	Ant 5+4(4)	DSI 4	507000	2535	19.10	20.20	1.288		1.000	0.01	0.240	0.309
Main PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-19KHz	Back	15mm	Ant 5+7(5)	DSI 4	507000	2535	25.36	25.50	1.033		1.000	0.03	0.281	0.290
Other PA	FR1 n7	50M	QPSK	1	1	DFT-SCS-19KHz	Back	15mm	Ant 5+7(7)	DSI 4	507000	2535	19.85	20.80	1.245		1.000	-0.08	0.281	0.350
Main PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(5)	DSI 4	519000	2595	25.38	25.70	1.076		1.000	-0.08	0.406	0.437
Other PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(4)	DSI 4	519000	2595	19.42	20.70	1.343		1.000	0.1	0.406	0.545
Main PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+7(5)	DSI 4	519000	2595	25.38	25.70	1.076		1.000	-0.18	0.288	0.310
Other PA	FR1 n38	40M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+7(7)	DSI 4	519000	2595	19.83	20.60	1.194		1.000	0.1	0.288	0.344
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(5)	DSI 4	518598	2592.99	25.05	25.50	1.109		1.000	0.12	0.348	0.386
Other PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(4)	DSI 4	518598	2592.99	18.79	20.20	1.384		1.000	0.08	0.348	0.481
Main PA	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+7(5)	DSI 4	518598	2592.99	25.05	25.50	1.109		1.000	-0.17	0.372	0.413
Other PA	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5+7(7)	DSI 4	518598	2592.99	19.33	20.20	1.222		1.000	-0.03	0.372	0.455
Main PA	FR1 n77	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(5)	DSI 4	633334	3500.01	24.08	25.00	1.236		1.000	0.14	0.259	0.320
Other PA	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 5+4(4)	DSI 4	633334	3500.01	19.93	20.00	1.016		1.000	0.11	0.259	0.263
Other PA	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10+4(10)	DSI 4	633334	3500.01	23.81	25.70	1.545		1.000	-0.05	0.170	0.263
Other PA	FR1 n77	100M	QPSK	135	69	DFT-SCS-30KHz	Back	15mm	Ant 10+4(4)	DSI 4	633334	3500.01	19.93	20.00	1.016		1.000	0.18	0.170	0.173
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(5)	DSI 4	633334	3500.01	23.61	24.00	1.094		1.000	0.14	0.280	0.306
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5+4(4)	DSI 4	633334	3500.01	19.40	19.50	1.023		1.000	-0.17	0.280	0.287
Main PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10+4(10)	DSI 4	633334	3500.01	25.67	26.00	1.079		1.000	0.17	0.219	0.236
Other PA	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 10+4(4)	DSI 4	633334	3500.01	19.40	19.50	1.023		1.000	-0.05	0.219	0.224
	Bluetooth					1Mbps	Back	15mm	Ant15+7(15)	Full power	39	2441	16.22	17.50	1.343	76.93	1.083	0.01	0.051	0.074
	Bluetooth					1Mbps	Back	15mm	Ant15+7(7)	Full power	0	2402	15.77	17.00	1.327	77.02	1.082	0.1	0.021	0.030