



### MIMO SAR verification results

N41 UL-MIMO (Ant1+5 ) DS11-Close Head			
SISO Ant1 Plimit (dBm)	20.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	15.5	SISO Ant5 Pmax (dBm)	25.0
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)	0.596
Reported SAR <sub>MIMO</sub>	0.750	Calc. SAR	1.473

N41 UL-MIMO (Ant1+5 ) DS14-Close Hotspot			
SISO Ant1 Plimit (dBm)	20.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	15.5	SISO Ant5 Pmax (dBm)	25.0
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)	0.491
Reported SAR <sub>MIMO</sub>	0.618	Calc. SAR	1.473

N41 UL-MIMO (Ant1+5 ) DS13-Close Body-worn			
SISO Ant1 Plimit (dBm)	21.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	27.1	SISO Ant5 Pmax (dBm)	25.0
Ptest (dBm)	21.2	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	21.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.185
Reported SAR <sub>MIMO</sub>	0.233	Calc. SAR	1.377

N41 UL-MIMO (Ant1+6 ) DS11-Close Head			
SISO Ant1 Plimit (dBm)	20.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	20.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	20.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	20.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.548
Reported SAR <sub>MIMO</sub>	0.774	Calc. SAR	2.204

N41 UL-MIMO (Ant1+6 ) DS14-Close Hotspot			
SISO Ant1 Plimit (dBm)	20.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	17.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	17.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	17.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.325
Reported SAR <sub>MIMO</sub>	0.459	Calc. SAR	1.654

N41 UL-MIMO (Ant1+6 ) DS13-Close Body-worn			
SISO Ant1 Plimit (dBm)	21.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	29.3	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	21.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	21.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.106
Reported SAR <sub>MIMO</sub>	0.150	Calc. SAR	1.272

N41 UL-MIMO (Ant5+6 ) DS11-Close Head			
SISO Ant5 Plimit (dBm)	15.5	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	20.2	SISO Ant6 Pmax (dBm)	24.2
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)	0.580
Reported SAR <sub>MIMO</sub>	0.819	Calc. SAR	1.475

N41 UL-MIMO (Ant5+6 ) DS14-Close Hotspot			
SISO Ant5 Plimit (dBm)	15.5	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	17.2	SISO Ant6 Pmax (dBm)	24.2
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)	0.497
Reported SAR <sub>MIMO</sub>	0.702	Calc. SAR	1.847

N41 UL-MIMO (Ant5+6 ) DS13-Close Body-worn			
SISO Ant5 Plimit (dBm)	27.1	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	29.3	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	24.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	24.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.521
Reported SAR <sub>MIMO</sub>	0.736	Calc. SAR	0.906



N41 UL-MIMO (Ant1+5 ) DSIS-Open Head			
SISO Ant1 Plimit (dBm)	18.7	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	15.0	SISO Ant5 Pmax (dBm)	25.0
Ptest (dBm)	15.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	15.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.611
Reported SAR <sub>MIMO</sub>	0.769	Calc. SAR	1.562

N41 UL-MIMO (Ant1+6 ) DSIS-Open Head			
SISO Ant1 Plimit (dBm)	18.7	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	18.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	18.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	18.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.485
Reported SAR <sub>MIMO</sub>	0.685	Calc. SAR	2.084

N41 UL-MIMO (Ant5+6 ) DSIS-Open Head			
SISO Ant5 Plimit (dBm)	15.0	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	18.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	15.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	15.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.655
Reported SAR <sub>MIMO</sub>	0.925	Calc. SAR	1.629

N41 UL-MIMO (Ant1+5 ) DSIS-Open Hotspot			
SISO Ant1 Plimit (dBm)	18.7	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	15.0	SISO Ant5 Pmax (dBm)	25.0
Ptest (dBm)	15.0	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	15.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.294
Reported SAR <sub>MIMO</sub>	0.370	Calc. SAR	1.562

N41 UL-MIMO (Ant1+6 ) DSIS-Open Hotspot			
SISO Ant1 Plimit (dBm)	18.7	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	18.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	18.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	18.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.409
Reported SAR <sub>MIMO</sub>	0.578	Calc. SAR	2.084

N41 UL-MIMO (Ant5+6 ) DSIS-Open Hotspot			
SISO Ant5 Plimit (dBm)	15.0	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	18.2	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	15.0	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	15.00	Measured MIMO SAR at meas. Ptest (W/kg)	0.304
Reported SAR <sub>MIMO</sub>	0.429	Calc. SAR	1.629

N41 UL-MIMO (Ant1+5 ) DSIS-Open Body-worn			
SISO Ant1 Plimit (dBm)	21.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant5 Plimit (dBm)	25.2	SISO Ant5 Pmax (dBm)	25.0
Ptest (dBm)	21.2	Total uncertainty (dB)	1.0
SAR design target (W/kg)	0.87	Back off	0
Measured MIMO Ptest (dBm)	21.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.244
Reported SAR <sub>MIMO</sub>	0.307	Calc. SAR	1.531

N41 UL-MIMO (Ant1+6 ) DSIS-Open Body-worn			
SISO Ant1 Plimit (dBm)	21.2	SISO Ant1 Pmax (dBm)	24.7
SISO Ant6 Plimit (dBm)	28.4	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	21.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	21.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.206
Reported SAR <sub>MIMO</sub>	0.291	Calc. SAR	1.312

N41 UL-MIMO (Ant5+6 ) DSIS-Open Body-worn			
SISO Ant5 Plimit (dBm)	25.2	SISO Ant5 Pmax (dBm)	25.0
SISO Ant6 Plimit (dBm)	28.4	SISO Ant6 Pmax (dBm)	24.2
Ptest (dBm)	24.2	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	24.20	Measured MIMO SAR at meas. Ptest (W/kg)	0.816
Reported SAR <sub>MIMO</sub>	1.153	Calc. SAR	1.294











### MIMO SAR verification results

Bluetooth (Ant9+10 ) DSII-Close Head			
SISO Ant9 Plimit (dBm)	16.8	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	21.1	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.099
Reported SAR <sub>MIMO</sub>	0.140	Calc.SAR	0.779

Bluetooth (Ant9+10 ) DSII-Close Hotspot			
SISO Ant9 Plimit (dBm)	19.0	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	19.2	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.189
Reported SAR <sub>MIMO</sub>	0.267	Calc.SAR	0.669

Bluetooth (Ant9+10 ) DSII-Close Body-worn			
SISO Ant9 Plimit (dBm)	28.7	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	31.3	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.001
Reported SAR <sub>MIMO</sub>	0.001	Calc.SAR	0.057



Bluetooth (Ant9+10 ) DSIS-Open Head			
SISO Ant9 Plimit (dBm)	17.1	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	18.2	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.132
Reported SAR <sub>MIMO</sub>	0.186	Calc.SAR	0.937

Bluetooth (Ant9+10 ) DSIS-Open Hotspot			
SISO Ant9 Plimit (dBm)	22.5	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	26.2	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.101
Reported SAR <sub>MIMO</sub>	0.143	Calc.SAR	0.217

Bluetooth (Ant9+10 ) DS17-Open Body-worn			
SISO Ant9 Plimit (dBm)	28.2	SISO Ant9 Pmax (dBm)	13.9
SISO Ant10 Plimit (dBm)	32.6	SISO Ant10 Pmax (dBm)	15.9
Ptest (dBm)	13.9	Total uncertainty (dB)	1.5
SAR design target (W/kg)	0.78	Back off	0
Measured MIMO Ptest (dBm)	13.90	Measured MIMO SAR at meas. Ptest (W/kg)	0.001
Reported SAR <sub>MIMO</sub>	0.001	Calc.SAR	0.056















