

NR Band n77 Conducted Power-- 40 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648000 (3 720.00 MHz)	651200 (3 768.00 MHz)	654400 (3 816.00 MHz)	657600 (3 864.00 MHz)	660800 (3 912.00 MHz)	664000 (3 960.00 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.11	22.03	22.04	22.11	22.03	22.09	0	0.0
	1	52	22.15	22.25	22.24	22.21	22.25	22.11		
	1	104	22.09	22.24	22.13	22.14	22.09	22.11		
	50	0	21.69	21.79	21.60	21.67	21.79	21.73	≤ 0.5	0.5
	50	25	21.96	22.03	22.05	22.02	22.14	22.05	0	0.0
	50	50	21.70	21.70	21.57	21.71	21.62	21.69	≤ 0.5	0.5
	100	0	21.71	21.71	21.66	21.59	21.50	21.60		
DFT-s OFDM QPSK	1	1	22.19	22.16	22.16	22.20	22.17	22.14	0	0.0
	1	52	22.25	22.25	22.30	22.26	22.30	22.17		
	1	104	22.18	22.24	22.22	22.16	22.26	22.15		
	50	0	21.89	21.89	21.73	21.85	21.89	21.84	≤ 1	1.0
	50	25	22.06	22.08	22.11	22.09	22.21	22.10	0	0.0
	50	50	21.84	21.88	21.76	21.92	21.68	21.77	≤ 1	1.0
	100	0	21.84	21.91	21.78	21.79	21.60	21.74		
DFT-s OFDM 16QAM	1	1	21.25	21.25	21.21	21.22	21.33	21.23	≤ 1	1.0
	1	52	21.28	21.38	21.38	21.32	21.41	21.33		
	1	104	21.27	21.28	21.26	21.22	21.30	21.15		
DFT-s OFDM 64QAM	1	1	19.84	19.81	19.70	19.82	19.76	19.71	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.82	17.88	17.83	17.81	17.86	17.73	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.14	21.28	21.13	21.10	21.13	21.13	≤ 1.5	1.5

Table 8.4.14-1.8 NR Conducted Power

NR Band n77 Conducted Power– 30 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647668 (3 715.02 MHz)	651000 (3 765.00 MHz)	654334 (3 815.01 MHz)	657666 (3 864.99 MHz)	661000 (3 915.00 MHz)	664332 (3 964.98 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.15	21.99	22.10	22.11	22.11	22.04	0	0.0
	1	39	22.26	22.13	22.12	22.13	22.13	22.14		
	1	76	22.05	22.04	22.08	22.05	22.08	21.99		
	36	0	21.77	21.82	21.79	21.74	21.66	21.71	≤ 0.5	0.5
	36	18	21.94	22.11	21.90	22.05	22.08	22.07	0	0.0
	36	36	21.74	21.66	21.76	21.81	21.56	21.77	≤ 0.5	0.5
	75	0	21.70	21.65	21.73	21.75	21.67	21.71		
DFT-s OFDM QPSK	1	1	22.23	22.11	22.18	22.17	22.16	22.13	0	0.0
	1	39	22.27	22.17	22.20	22.29	22.26	22.27		
	1	76	22.16	22.15	22.19	22.15	22.24	22.08		
	36	0	21.87	21.89	21.86	21.91	21.76	21.82	≤ 1	1.0
	36	18	22.05	22.13	22.07	22.16	22.08	22.12	0	0.0
	36	36	21.92	21.78	21.88	21.85	21.66	21.84	≤ 1	1.0
	75	0	21.86	21.84	21.77	21.85	21.71	21.80		
DFT-s OFDM 16QAM	1	1	21.26	21.13	21.35	21.27	21.24	21.24	≤ 1	1.0
	1	39	21.36	21.36	21.35	21.35	21.37	21.31		
	1	76	21.31	21.31	21.21	21.26	21.29	21.27		
DFT-s OFDM 64QAM	1	1	19.84	19.72	19.77	19.73	19.77	19.63	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.87	17.89	17.78	17.82	17.88	17.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.14	21.20	21.16	21.11	21.21	21.14	≤ 1.5	1.5

Table 8.4.14-1.9 NR Conducted Power

NR Band n77 Conducted Power-- 20 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647334 (3 710.01 MHz)	650800 (3 762.00 MHz)	654266 (3 813.99 MHz)	657734 (3 866.01 MHz)	661200 (3 918.00 MHz)	664666 (3 969.99 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.09	22.12	22.08	22.13	22.12	22.02	0	0.0
	1	25	22.18	22.24	22.09	22.15	22.19	22.21		
	1	49	22.11	22.18	22.03	22.12	22.15	22.03		
	25	0	21.65	21.80	21.63	21.74	21.61	21.74	≤ 0.5	0.5
	25	12	22.00	22.04	22.02	22.01	22.00	22.03	0	0.0
	25	25	21.66	21.67	21.61	21.74	21.61	21.70	≤ 0.5	0.5
	50	0	21.76	21.77	21.48	21.64	21.48	21.60		
DFT-s OFDM QPSK	1	1	22.15	22.16	22.14	22.17	22.16	22.13	0	0.0
	1	25	22.25	22.24	22.26	22.24	22.22	22.25		
	1	49	22.17	22.18	22.21	22.22	22.15	22.16		
	25	0	21.85	21.89	21.73	21.90	21.78	21.86	≤ 1	1.0
	25	12	22.02	22.19	22.06	22.02	22.08	22.03	0	0.0
	25	25	21.80	21.84	21.76	21.87	21.84	21.78	≤ 1	1.0
50	0	21.76	21.87	21.62	21.67	21.78	21.73			
DFT-s OFDM 16QAM	1	1	21.36	21.26	21.17	21.26	21.24	21.29	≤ 1	1.0
	1	25	21.41	21.35	21.31	21.34	21.36	21.40		
	1	49	21.31	21.34	21.28	21.25	21.33	21.26		
DFT-s OFDM 64QAM	1	1	19.75	19.76	19.79	19.73	19.66	19.79	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.90	17.97	17.80	17.80	17.85	17.84	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.21	21.05	21.10	21.06	21.16	21.16	≤ 1.5	1.5

Table 8.4.14-1.10 NR Conducted Power

NR Band n77 Conducted Power-- 10 MHz Bandwidth										
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid-A Channel	Mid-B Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647000 (3 705.00 MHz)	650600 (3 759.00 MHz)	654200 (3 813.00 MHz)	657800 (3 867.00 MHz)	661400 (3 921.00 MHz)	665000 (3 975.00 MHz)		
			Conducted Power (dBm)							
DFT-s OFDM $\pi/2$ BPSK	1	1	22.00	22.09	22.05	22.08	22.03	21.95	0	0.0
	1	12	22.06	22.19	22.08	22.14	22.11	22.19		
	1	22	21.97	22.16	21.97	22.01	22.07	22.01		
	12	0	21.78	21.79	21.68	21.70	21.84	21.73	≤ 0.5	0.5
	12	6	22.01	22.13	22.03	22.08	22.09	22.11	0	0.0
	12	12	21.79	21.80	21.72	21.79	21.71	21.79	≤ 0.5	0.5
	24	0	21.63	21.67	21.44	21.52	21.46	21.57		
DFT-s OFDM QPSK	1	1	22.08	22.18	22.17	22.19	22.03	22.09	0	0.0
	1	12	22.19	22.29	22.19	22.20	22.25	22.23		
	1	22	22.12	22.17	22.01	22.17	22.14	22.08		
	12	0	21.83	21.84	21.86	21.81	21.88	21.86	≤ 1	1.0
	12	6	22.15	22.23	22.15	22.12	22.12	22.19	0	0.0
	12	12	21.83	21.88	21.86	21.85	21.85	21.88	≤ 1	1.0
	24	0	21.71	21.68	21.56	21.64	21.61	21.78		
DFT-s OFDM 16QAM	1	1	21.22	21.28	21.21	21.20	21.24	21.22	≤ 1	1.0
	1	12	21.36	21.31	21.25	21.23	21.30	21.36		
	1	22	21.28	21.20	21.15	21.23	21.19	21.29		
DFT-s OFDM 64QAM	1	1	19.59	19.70	19.75	19.74	19.61	19.79	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.86	17.79	17.76	17.78	17.85	17.73	≤ 4.5	4.5
CP OFDM QPSK	1	1	21.18	21.06	21.09	20.95	21.08	21.03	≤ 1.5	1.5

Table 8.4.14-1.11 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n78	Maximum	27.0
	Nominal	25.0

Table 8.4.15.1 Nominal and Maximum Output Power Spec

15) NR Band n78 DoD

NR Band n78 Conducted Power– 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.35	0	0.0
	1	136	25.42		
	1	271	25.35		
	135	0	25.04	≤ 0.5	0.5
	135	67	25.11	0	0.0
	135	135	25.07	≤ 0.5	0.5
	270	0	25.08		
DFT-s OFDM QPSK	1	1	25.45	0	0.0
	1	136	25.56		
	1	271	25.45		
	135	0	25.15	≤ 1	1.0
	135	67	25.32	0	0.0
	135	135	25.14	≤ 1	1.0
	270	0	25.22		
DFT-s OFDM 16QAM	1	1	24.54	≤ 1	1.0
	1	136	24.66		
	1	271	24.56		
DFT-s OFDM 64QAM	1	1	23.36	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	21.05	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.10	≤ 1.5	1.5

Table 8.4.15.2 NR Conducted Power

NR Band n78 Conducted Power– 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.21	0	0.0
	1	122	25.25		
	1	243	25.18		
	120	0	24.99	≤ 0.5	0.5
	120	60	25.09	0	0.0
	120	120	25.00	≤ 0.5	0.5
	243	0	25.08		
DFT-s OFDM QPSK	1	1	25.29	0	0.0
	1	122	25.45		
	1	243	25.29		
	120	0	25.15	≤ 1	1.0
	120	60	25.21	0	0.0
	120	120	25.17	≤ 1	1.0
	243	0	25.17		
DFT-s OFDM 16QAM	1	1	24.41	≤ 1	1.0
	1	122	24.56		
	1	243	24.48		
DFT-s OFDM 64QAM	1	1	23.21	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.89	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.03	≤ 1.5	1.5

Table 8.4.15.3 NR Conducted Power

NR Band n78 Conducted Power– 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.30	0	0.0
	1	108	25.36		
	1	215	25.30		
	108	0	24.92	≤ 0.5	0.5
	108	54	25.19	0	0.0
	108	108	24.98	≤ 0.5	0.5
	216	0	24.94		
DFT-s OFDM QPSK	1	1	25.43	0	0.0
	1	108	25.47		
	1	215	25.40		
	108	0	25.08	≤ 1	1.0
	108	54	25.25	0	0.0
	108	108	25.12	≤ 1	1.0
	216	0	25.15		
DFT-s OFDM 16QAM	1	1	24.50	≤ 1	1.0
	1	108	24.57		
	1	215	24.43		
DFT-s OFDM 64QAM	1	1	23.26	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.93	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.01	≤ 1.5	1.5

Table 8.4.15.4 NR Conducted Power

NR Band n78 Conducted Power– 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.30	0	0.0
	1	94	25.36		
	1	187	25.27		
	90	0	24.99	≤ 0.5	0.5
	90	45	25.10	0	0.0
	90	90	25.04	≤ 0.5	0.5
	180	0	24.85		
DFT-s OFDM QPSK	1	1	25.41	0	0.0
	1	94	25.46		
	1	187	25.34		
	90	0	25.09	≤ 1	1.0
	90	45	25.26	0	0.0
	90	90	25.13	≤ 1	1.0
	180	0	25.08		
DFT-s OFDM 16QAM	1	1	24.51	≤ 1	1.0
	1	94	24.58		
	1	187	24.44		
DFT-s OFDM 64QAM	1	1	23.16	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.98	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.97	≤ 1.5	1.5

Table 8.4.15.5 NR Conducted Power

NR Band n78 Conducted Power– 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.27	0	0.0
	1	80	25.46		
	1	160	25.41		
	81	0	24.94	≤ 0.5	0.5
	81	40	25.16	0	0.0
	81	81	24.92	≤ 0.5	0.5
	162	0	24.97		
DFT-s OFDM QPSK	1	1	25.33	0	0.0
	1	80	25.50		
	1	160	25.46		
	81	0	25.02	≤ 1	1.0
	81	40	25.24	0	0.0
	81	81	25.10	≤ 1	1.0
	162	0	25.01		
DFT-s OFDM 16QAM	1	1	24.41	≤ 1	1.0
	1	80	24.51		
	1	160	24.47		
DFT-s OFDM 64QAM	1	1	23.15	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.05	≤ 1.5	1.5

Table 8.4.15.6 NR Conducted Power

NR Band n78 Conducted Power-- 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM $\pi/2$ BPSK	1	1	25.26	25.25	0	0.0
	1	66	25.43	25.33		
	1	131	25.31	25.25		
	64	0	24.87	24.82	≤ 0.5	0.5
	64	32	25.06	25.13	0	0.0
	64	64	24.91	25.05	≤ 0.5	0.5
	128	0	24.83	24.93		
DFT-s OFDM QPSK	1	1	25.27	25.35	0	0.0
	1	66	25.47	25.43		
	1	131	25.33	25.32		
	64	0	24.98	25.01	≤ 1	1.0
	64	32	25.22	25.18	0	0.0
	64	64	24.93	25.16	≤ 1	1.0
	128	0	24.93	25.00		
DFT-s OFDM 16QAM	1	1	24.46	24.49	≤ 1	1.0
	1	66	24.56	24.51		
	1	131	24.50	24.46		
DFT-s OFDM 64QAM	1	1	23.20	23.13	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.87	20.93	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.03	24.08	≤ 1.5	1.5

Table 8.4.15.7 NR Conducted Power

NR Band n78 Conducted Power– 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	25.27	25.18	0	0.0
	1	52	25.31	25.37		
	1	104	25.30	25.20		
	50	0	24.84	24.91	≤ 0.5	0.5
	50	25	25.08	25.03	0	0.0
	50	50	24.91	24.95	≤ 0.5	0.5
	100	0	24.95	25.04		
DFT-s OFDM QPSK	1	1	25.39	25.33	0	0.0
	1	52	25.39	25.39		
	1	104	25.34	25.36		
	50	0	24.92	25.04	≤ 1	1.0
	50	25	25.25	25.27	0	0.0
	50	50	25.09	25.00	≤ 1	1.0
	100	0	25.09	25.17		
DFT-s OFDM 16QAM	1	1	24.52	24.41	≤ 1	1.0
	1	52	24.54	24.60		
	1	104	24.51	24.46		
DFT-s OFDM 64QAM	1	1	23.22	23.23	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.93	20.84	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.09	24.00	≤ 1.5	1.5

Table 8.4.15.8 NR Conducted Power

NR Band n78 Conducted Power~ 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631000 (3 465.00MHz)	633334 (3 500.01 MHz)	635666 (3 534.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	25.24	25.10	25.23	0	0.0
	1	39	25.34	25.33	25.34		
	1	76	25.26	25.19	25.22		
	36	0	24.82	25.00	24.87	≤ 0.5	0.5
	36	18	25.12	25.17	25.14	0	0.0
	36	36	24.93	25.08	24.94	≤ 0.5	0.5
	75	0	24.91	24.86	24.90		
DFT-s OFDM QPSK	1	1	25.35	25.30	25.30	0	0.0
	1	39	25.47	25.44	25.39		
	1	76	25.41	25.32	25.33		
	36	0	24.90	25.12	25.09	≤ 1	1.0
	36	18	25.19	25.26	25.28	0	0.0
	36	36	25.11	25.15	25.11	≤ 1	1.0
	75	0	25.02	25.03	25.04		
DFT-s OFDM 16QAM	1	1	24.53	24.47	24.51	≤ 1	1.0
	1	39	24.56	24.65	24.53		
	1	76	24.46	24.46	24.49		
DFT-s OFDM 64QAM	1	1	23.12	23.30	23.18	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.93	21.01	20.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.97	24.03	24.07	≤ 1.5	1.5

Table 8.4.15.9 NR Conducted Power

NR Band n78 Conducted Power~ 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630668 (3 460.02 MHz)	633334 (3 500.01 MHz)	636000 (3 540.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	25.13	25.24	25.18	0	0.0
	1	25	25.35	25.31	25.34		
	1	49	25.27	25.29	25.24		
	25	0	24.89	25.00	24.95	≤ 0.5	0.5
	25	12	25.08	25.11	25.07	0	0.0
	25	25	24.98	24.94	24.98	≤ 0.5	0.5
	50	0	24.88	24.92	24.97		
DFT-s OFDM QPSK	1	1	25.31	25.27	25.36	0	0.0
	1	25	25.47	25.47	25.43		
	1	49	25.37	25.44	25.34		
	25	0	24.96	25.04	24.96	≤ 1	1.0
	25	12	25.15	25.24	25.22	0	0.0
	25	25	25.05	25.05	24.99	≤ 1	1.0
	50	0	24.98	25.10	25.07		
DFT-s OFDM 16QAM	1	1	24.33	24.30	24.37	≤ 1	1.0
	1	25	24.48	24.57	24.57		
	1	49	24.46	24.46	24.45		
DFT-s OFDM 64QAM	1	1	23.20	23.14	23.22	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.83	20.82	20.92	≤ 4.5	4.5
CP OFDM QPSK	1	1	24.16	23.98	24.05	≤ 1.5	1.5

Table 8.4.15.10 NR Conducted Power

NR Band n78 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630334 (3 455.01 MHz)	633334 (3 500.01 MHz)	636332 (3 544.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	25.09	25.19	25.10	0	0.0
	1	12	25.32	25.23	25.38		
	1	22	25.25	25.15	25.29		
	12	0	25.04	25.14	25.05	≤ 0.5	0.5
	12	6	25.27	25.18	25.33	0	0.0
	12	12	25.21	25.12	25.28	≤ 0.5	0.5
24	0	24.85	24.90	24.86			
DFT-s OFDM QPSK	1	1	25.24	25.24	25.19	0	0.0
	1	12	25.43	25.46	25.49		
	1	22	25.32	25.38	25.34		
	12	0	25.20	25.21	25.11	≤ 1	1.0
	12	6	25.34	25.40	25.42	0	0.0
	12	12	25.27	25.34	25.32	≤ 1	1.0
24	0	24.93	25.00	24.93			
DFT-s OFDM 16QAM	1	1	24.34	24.29	24.35	≤ 1	1.0
	1	12	24.45	24.47	24.49		
	1	22	24.40	24.46	24.42		
DFT-s OFDM 64QAM	1	1	23.14	23.07	23.27	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.75	20.77	20.85	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.97	23.95	23.92	≤ 1.5	1.5

Table 8.4.15.11 NR Conducted Power

CA Conf.	RF Expos. Cond.	UL																					
		PCC						SCC						MPR	Standalone					PCC		SCC	
		Modulation	RB Size	RB Offset	BW	Freq.	Ch.	Modulation	RB Size	RB Offset	BW	Freq.	Ch.		PCC	Aggre gated BW	SCC	Aggre gated BW	MPR	Tune-Up Limit	Tune-Up Limit	CA Power	CA Power
2A-78A	Body	DFT-s OFDM QPSK	1	107	40	1880.0	376000	DFT-s OFDM QPSK	1	136	100	3500.01	633334	0	22.65	40	25.56	100	0	22.00	25.00	20.55	23.56
5A-78A	Body	DFT-s OFDM QPSK	1	52	20	836.5	167300	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	23.29	20	25.56	100	0	22.00	25.00	20.69	23.57
7A-78A	Body	DFT-s OFDM QPSK	1	107	40	2535.0	507000	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	22.35	40	25.56	100	0	22.00	25.00	20.13	23.60
12A-78A	Body	DFT-s OFDM QPSK	1	39	15	707.5	141500	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	22.87	15	25.56	100	0	22.00	25.00	20.67	23.58
25A-78A	Body	DFT-s OFDM QPSK	1	107	40	1882.5	376500	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	22.88	40	25.56	100	0	22.00	25.00	20.68	23.43
26A-78A	Body	DFT-s OFDM QPSK	1	52	20	831.5	166300	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	22.86	20	25.56	100	0	22.00	25.00	20.73	23.58
66A-78A	Body	DFT-s OFDM QPSK	1	107	40	1745.0	349000	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	23.01	40	25.56	100	0	22.00	25.00	20.94	23.63
71A-78A	Body	DFT-s OFDM QPSK	1	52	20	680.5	136100	DFT-s OFDM QPSK	1	136	100	3500.0	633334	0	22.93	20	25.56	100	0	22.00	25.00	20.80	23.43

Table 8.4.15.12 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n78 (ENDC)	Maximum	23.5
	Nominal	21.5

Table 8.4.15-1.1 Nominal and Maximum Output Power Spec

15-1) NR Band n78 DoD (ENDC)

NR Band n78 Conducted Power– 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.12	0	0.0
	1	136	22.13		
	1	271	22.12		
	135	0	21.74	≤ 0.5	0.5
	135	67	21.81	0	0.0
	135	135	21.79	≤ 0.5	0.5
	270	0	21.85		
DFT-s OFDM QPSK	1	1	22.15	0	0.0
	1	136	22.35		
	1	271	22.16		
	135	0	21.91	≤ 1	1.0
	135	67	22.03	0	0.0
	135	135	21.86	≤ 1	1.0
	270	0	21.95		
DFT-s OFDM 16QAM	1	1	21.30	≤ 1	1.0
	1	136	21.44		
	1	271	21.30		
DFT-s OFDM 64QAM	1	1	20.15	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.82	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.83	≤ 1.5	1.5

Table 8.4.15-1.2 NR Conducted Power

NR Band n78 Conducted Power– 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	21.92	0	0.0
	1	122	22.04		
	1	243	21.94		
	120	0	21.73	≤ 0.5	0.5
	120	60	21.87	0	0.0
	120	120	21.74	≤ 0.5	0.5
	243	0	21.85		
DFT-s OFDM QPSK	1	1	22.06	0	0.0
	1	122	22.18		
	1	243	22.01		
	120	0	21.86	≤ 1	1.0
	120	60	21.97	0	0.0
	120	120	21.96	≤ 1	1.0
	243	0	21.89		
DFT-s OFDM 16QAM	1	1	21.13	≤ 1	1.0
	1	122	21.26		
	1	243	21.19		
DFT-s OFDM 64QAM	1	1	19.99	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.65	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.81	≤ 1.5	1.5

Table 8.4.15-1.3 NR Conducted Power

NR Band n78 Conducted Power– 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.01	0	0.0
	1	108	22.17		
	1	215	22.09		
	108	0	21.71	≤ 0.5	0.5
	108	54	21.93	0	0.0
	108	108	21.75	≤ 0.5	0.5
	216	0	21.73		
DFT-s OFDM QPSK	1	1	22.14	0	0.0
	1	108	22.22		
	1	215	22.16		
	108	0	21.79	≤ 1	1.0
	108	54	22.00	0	0.0
	108	108	21.86	≤ 1	1.0
	216	0	21.90		
DFT-s OFDM 16QAM	1	1	21.25	≤ 1	1.0
	1	108	21.28		
	1	215	21.23		
DFT-s OFDM 64QAM	1	1	19.97	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.72	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.73	≤ 1.5	1.5

Table 8.4.15-1.4 NR Conducted Power

NR Band n78 Conducted Power– 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.02	0	0.0
	1	94	22.11		
	1	187	22.05		
	90	0	21.76	≤ 0.5	0.5
	90	45	21.91	0	0.0
	90	90	21.83	≤ 0.5	0.5
	180	0	21.57		
DFT-s OFDM QPSK	1	1	22.20	0	0.0
	1	94	22.22		
	1	187	22.13		
	90	0	21.83	≤ 1	1.0
	90	45	22.05	0	0.0
	90	90	21.87	≤ 1	1.0
	180	0	21.87		
DFT-s OFDM 16QAM	1	1	21.24	≤ 1	1.0
	1	94	21.32		
	1	187	21.16		
DFT-s OFDM 64QAM	1	1	19.91	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.71	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.71	≤ 1.5	1.5

Table 8.4.15-1.5 NR Conducted Power

NR Band n78 Conducted Power– 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			633334 (3 500.01 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.01	0	0.0
	1	80	22.18		
	1	160	22.17		
	81	0	21.64	≤ 0.5	0.5
	81	40	21.91	0	0.0
	81	81	21.69	≤ 0.5	0.5
	162	0	21.72		
DFT-s OFDM QPSK	1	1	22.05	0	0.0
	1	80	22.23		
	1	160	22.18		
	81	0	21.78	≤ 1	1.0
	81	40	22.00	0	0.0
	81	81	21.86	≤ 1	1.0
	162	0	21.80		
DFT-s OFDM 16QAM	1	1	21.15	≤ 1	1.0
	1	80	21.27		
	1	160	21.22		
DFT-s OFDM 64QAM	1	1	19.85	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.61	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.78	≤ 1.5	1.5

Table 8.4.15-1.6 NR Conducted Power

NR Band n78 Conducted Power-- 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	21.96	22.04	0	0.0
	1	66	22.19	22.09		
	1	131	22.02	21.97		
	64	0	21.60	21.55	≤ 0.5	0.5
	64	32	21.81	21.91	0	0.0
	64	64	21.70	21.75	≤ 0.5	0.5
	128	0	21.57	21.67		
DFT-s OFDM QPSK	1	1	22.02	22.12	0	0.0
	1	66	22.19	22.19		
	1	131	22.12	22.09		
	64	0	21.74	21.76	≤ 1	1.0
	64	32	21.98	21.96	0	0.0
	64	64	21.72	21.94	≤ 1	1.0
	128	0	21.67	21.78		
DFT-s OFDM 16QAM	1	1	21.17	21.21	≤ 1	1.0
	1	66	21.26	21.30		
	1	131	21.25	21.16		
DFT-s OFDM 64QAM	1	1	19.98	19.87	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.66	17.70	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.74	20.78	≤ 1.5	1.5

Table 8.4.15-1.7 NR Conducted Power

NR Band n78 Conducted Power– 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631668 (3 475.02 MHz)	635000 (3 525.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM $\pi/2$ BPSK	1	1	22.03	21.93	0	0.0
	1	52	22.09	22.09		
	1	104	22.08	21.98		
	50	0	21.56	21.61	≤ 0.5	0.5
	50	25	21.78	21.89	0	0.0
	50	50	21.64	21.71	≤ 0.5	0.5
	100	0	21.65	21.82		
DFT-s OFDM QPSK	1	1	22.10	22.04	0	0.0
	1	52	22.16	22.10		
	1	104	22.13	22.09		
	50	0	21.67	21.79	≤ 1	1.0
	50	25	22.01	22.06	0	0.0
	50	50	21.80	21.80	≤ 1	1.0
	100	0	21.84	21.87		
DFT-s OFDM 16QAM	1	1	21.30	21.15	≤ 1	1.0
	1	52	21.37	21.39		
	1	104	21.21	21.16		
DFT-s OFDM 64QAM	1	1	19.93	19.99	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.71	17.62	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.79	20.78	≤ 1.5	1.5

Table 8.4.15-1.8 NR Conducted Power

NR Band n78 Conducted Power~ 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			631000 (3 465.00MHz)	633334 (3 500.01 MHz)	635666 (3 534.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	21.94	21.81	22.01	0	0.0
	1	39	22.09	22.07	22.04		
	1	76	21.97	21.93	21.99		
	36	0	21.60	21.77	21.58	≤ 0.5	0.5
	36	18	21.82	21.89	21.87	0	0.0
	36	36	21.63	21.83	21.65	≤ 0.5	0.5
	75	0	21.62	21.64	21.66		
DFT-s OFDM QPSK	1	1	22.12	22.06	22.06	0	0.0
	1	39	22.21	22.15	22.21		
	1	76	22.17	22.04	22.12		
	36	0	21.66	21.91	21.80	≤ 1	1.0
	36	18	21.89	22.00	21.98	0	0.0
	36	36	21.82	21.91	21.89	≤ 1	1.0
	75	0	21.74	21.74	21.83		
DFT-s OFDM 16QAM	1	1	21.27	21.26	21.21	≤ 1	1.0
	1	39	21.34	21.42	21.36		
	1	76	21.22	21.21	21.28		
DFT-s OFDM 64QAM	1	1	19.89	20.06	19.90	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.71	17.75	17.63	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.76	20.78	20.83	≤ 1.5	1.5

Table 8.4.15-1.9 NR Conducted Power

NR Band n78 Conducted Power~ 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630668 (3 460.02 MHz)	633334 (3 500.01 MHz)	636000 (3 540.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	21.89	22.03	21.95	0	0.0
	1	25	22.05	22.03	22.05		
	1	49	22.04	22.02	21.99		
	25	0	21.64	21.76	21.66	≤ 0.5	0.5
	25	12	21.79	21.86	21.79	0	0.0
	25	25	21.76	21.65	21.69	≤ 0.5	0.5
	50	0	21.67	21.67	21.74		
DFT-s OFDM QPSK	1	1	22.07	22.05	22.09	0	0.0
	1	25	22.22	22.25	22.19		
	1	49	22.07	22.20	22.05		
	25	0	21.67	21.82	21.73	≤ 1	1.0
	25	12	21.91	21.98	21.99	0	0.0
	25	25	21.81	21.84	21.76	≤ 1	1.0
	50	0	21.72	21.85	21.85		
DFT-s OFDM 16QAM	1	1	21.08	21.08	21.13	≤ 1	1.0
	1	25	21.24	21.33	21.30		
	1	49	21.19	21.20	21.17		
DFT-s OFDM 64QAM	1	1	19.91	19.86	20.01	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.61	17.57	17.70	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.87	20.74	20.83	≤ 1.5	1.5

Table 8.4.15-1.10 NR Conducted Power

NR Band n78 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			630334 (3 455.01 MHz)	633334 (3 500.01 MHz)	636332 (3 544.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	21.84	21.95	21.85	0	0.0
	1	12	22.03	21.97	22.12		
	1	22	21.97	21.86	22.01		
	12	0	21.80	21.67	21.81	≤ 0.5	0.5
	12	6	22.05	21.95	22.11	0	0.0
	12	12	21.91	21.68	21.83	≤ 0.5	0.5
	24	0	21.60	21.65	21.56		
DFT-s OFDM QPSK	1	1	22.00	22.03	21.90	0	0.0
	1	12	22.20	22.17	22.26		
	1	22	22.10	22.12	22.10		
	12	0	21.93	21.81	21.90	≤ 1	1.0
	12	6	22.07	22.20	22.16	0	0.0
	12	12	21.92	21.82	21.90	≤ 1	1.0
	24	0	21.72	21.72	21.69		
DFT-s OFDM 16QAM	1	1	21.04	21.08	21.10	≤ 1	1.0
	1	12	21.21	21.22	21.34		
	1	22	21.15	21.20	21.20		
DFT-s OFDM 64QAM	1	1	19.92	19.82	19.97	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.53	17.56	17.64	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.73	20.74	20.63	≤ 1.5	1.5

Table 8.4.15-1.11 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n78	Maximum	27.0
	Nominal	25.0

Table 8.4.16.1 Nominal and Maximum Output Power Spec

16) NR Band n78

NR Band n78 Conducted Power– 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.32	0	0.0
	1	136	25.45		
	1	271	25.35		
	135	0	24.94	≤ 0.5	0.5
	135	67	25.09	0	0.0
	135	135	24.99	≤ 0.5	0.5
DFT-s OFDM QPSK	270	0	24.98	0	0.0
	1	1	25.40		
	1	136	25.52		
	1	271	25.43	≤ 1	1.0
	135	0	25.04		
	135	67	25.31		
DFT-s OFDM 16QAM	135	135	25.03	≤ 1	1.0
	270	0	25.06		
	1	1	24.45	≤ 1	1.0
DFT-s OFDM 64QAM	1	136	24.58		
	1	271	24.48		
DFT-s OFDM 256QAM	1	1	23.11	≤ 2.5	2.5
	1	1	21.01		
	1	1	23.96		
CP OFDM QPSK	1	1	23.96	≤ 1.5	1.5

Table 8.4.16.2 NR Conducted Power

NR Band n78 Conducted Power– 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.21	0	0.0
	1	122	25.22		
	1	243	25.19		
	120	0	24.70	≤ 0.5	0.5
	120	60	25.08	0	0.0
	120	120	24.81	≤ 0.5	0.5
DFT-s OFDM QPSK	243	0	24.86		
	1	1	25.38		
	1	122	25.40	0	0.0
	1	243	25.27		
	120	0	24.88		
	120	60	25.10	≤ 1	1.0
DFT-s OFDM 16QAM	120	120	24.91		
	243	0	24.93		
	1	1	24.39	≤ 1	1.0
DFT-s OFDM 64QAM	1	122	24.40		
	1	243	24.33		
DFT-s OFDM 256QAM	1	1	22.96	≤ 2.5	2.5
	1	1	20.92		
	1	1	23.88		
CP OFDM QPSK	1	1	23.88	≤ 1.5	1.5

Table 8.4.16.3 NR Conducted Power

NR Band n78 Conducted Power– 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.12	0	0.0
	1	108	25.25		
	1	215	25.15		
	108	0	24.81	≤ 0.5	0.5
	108	54	25.03	0	0.0
	108	108	24.87	≤ 0.5	0.5
	216	0	24.77		
DFT-s OFDM QPSK	1	1	25.35	0	0.0
	1	108	25.36		
	1	215	25.31		
	108	0	24.95	≤ 1	1.0
	108	54	25.05	0	0.0
	108	108	24.95	≤ 1	1.0
	216	0	24.89		
DFT-s OFDM 16QAM	1	1	24.41	≤ 1	1.0
	1	108	24.43		
	1	215	24.36		
DFT-s OFDM 64QAM	1	1	22.94	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.90	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.89	≤ 1.5	1.5

Table 8.4.16.4 NR Conducted Power

NR Band n78 Conducted Power– 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.06	0	0.0
	1	94	25.14		
	1	187	25.06		
	90	0	24.87	≤ 0.5	0.5
	90	45	25.06	0	0.0
	90	90	24.77	≤ 0.5	0.5
	180	0	24.74		
DFT-s OFDM QPSK	1	1	25.20	0	0.0
	1	94	25.24		
	1	187	25.23		
	90	0	24.92	≤ 1	1.0
	90	45	25.14	0	0.0
	90	90	24.96	≤ 1	1.0
	180	0	24.87		
DFT-s OFDM 16QAM	1	1	24.30	≤ 1	1.0
	1	94	24.42		
	1	187	24.33		
DFT-s OFDM 64QAM	1	1	22.88	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.84	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.79	≤ 1.5	1.5

Table 8.4.16.5 NR Conducted Power

NR Band n78 Conducted Power– 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	25.10	0	0.0
	1	80	25.15		
	1	160	25.05		
	81	0	24.67	≤ 0.5	0.5
	81	40	25.02	0	0.0
	81	81	24.78	≤ 0.5	0.5
	162	0	24.65		
DFT-s OFDM QPSK	1	1	25.25	0	0.0
	1	80	25.33		
	1	160	25.19		
	81	0	24.80	≤ 1	1.0
	81	40	25.06	0	0.0
	81	81	24.97	≤ 1	1.0
	162	0	24.81		
DFT-s OFDM 16QAM	1	1	24.25	≤ 1	1.0
	1	80	24.33		
	1	160	24.28		
DFT-s OFDM 64QAM	1	1	22.81	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.79	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.85	≤ 1.5	1.5

Table 8.4.16.6 NR Conducted Power

NR Band n78 Conducted Power– 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648333 (3 725.00 MHz)	651666 (3 774.99 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM $\pi/2$ BPSK	1	1	25.19	25.09	0	0.0
	1	66	25.22	25.26		
	1	131	25.21	25.08		
	64	0	24.80	24.85	≤ 0.5	0.5
	64	32	25.04	25.04	0	0.0
	64	64	24.83	24.81	≤ 0.5	0.5
	128	0	24.81	24.83		
DFT-s OFDM QPSK	1	1	25.26	25.20	0	0.0
	1	66	25.42	25.38		
	1	131	25.32	25.18		
	64	0	24.93	24.91	≤ 1	1.0
	64	32	25.15	25.07	0	0.0
	64	64	24.92	24.93	≤ 1	1.0
	128	0	24.92	24.95		
DFT-s OFDM 16QAM	1	1	24.27	24.30	≤ 1	1.0
	1	66	24.44	24.40		
	1	131	24.42	24.19		
DFT-s OFDM 64QAM	1	1	22.90	22.94	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.92	20.89	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.84	23.87	≤ 1.5	1.5

Table 8.4.16.7 NR Conducted Power

NR Band n78 Conducted Power– 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648000 (3 720.00 MHz)	652000 (3 780.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	25.11	25.07	0	0.0
	1	52	25.20	25.16		
	1	104	25.14	25.12		
	50	0	24.69	24.78	≤ 0.5	0.5
	50	25	25.04	25.13	0	0.0
	50	50	24.71	24.74	≤ 0.5	0.5
	100	0	24.73	24.75		
DFT-s OFDM QPSK	1	1	25.17	25.19	0	0.0
	1	52	25.31	25.22		
	1	104	25.17	25.20		
	50	0	24.84	24.96	≤ 1	1.0
	50	25	25.20	25.25	0	0.0
	50	50	24.86	24.82	≤ 1	1.0
	100	0	24.74	24.98		
DFT-s OFDM 16QAM	1	1	24.20	24.27	≤ 1	1.0
	1	52	24.33	24.29		
	1	104	24.27	24.27		
DFT-s OFDM 64QAM	1	1	22.91	22.83	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.76	20.83	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.83	23.69	≤ 1.5	1.5

Table 8.4.16.8 NR Conducted Power

NR Band n78 Conducted Power~ 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647500 (3 715.02 MHz)	650000 (3 750.00 MHz)	652332 (3 784.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	25.17	25.02	25.26	0	0.0
	1	39	25.19	25.08	25.28		
	1	76	25.08	25.05	25.11		
	36	0	24.80	24.77	24.79	≤ 0.5	0.5
	36	18	25.11	25.11	25.10	0	0.0
	36	36	24.70	24.87	24.67	≤ 0.5	0.5
	75	0	24.70	24.70	24.71		
DFT-s OFDM QPSK	1	1	25.24	25.19	25.39	0	0.0
	1	39	25.26	25.20	25.41		
	1	76	25.20	25.19	25.28		
	36	0	24.86	24.84	24.91	≤ 1	1.0
	36	18	25.23	25.15	25.12	0	0.0
	36	36	24.89	24.99	24.76	≤ 1	1.0
	75	0	24.79	24.79	24.85		
DFT-s OFDM 16QAM	1	1	24.28	24.29	24.43	≤ 1	1.0
	1	39	24.38	24.33	24.48		
	1	76	24.30	24.25	24.32		
DFT-s OFDM 64QAM	1	1	22.84	22.87	22.95	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.92	20.76	20.91	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.77	23.89	23.92	≤ 1.5	1.5

Table 8.4.16.9 NR Conducted Power

NR Band n78 Conducted Power~ 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647334 (3 710.01 MHz)	650000 (3 750.00 MHz)	652666 (3 789.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	25.18	25.16	25.15	0	0.0
	1	25	25.20	25.31	25.16		
	1	49	25.07	25.09	25.15		
	25	0	24.78	24.79	24.70	≤ 0.5	0.5
	25	12	25.02	25.06	25.02	0	0.0
	25	25	24.67	24.72	24.79	≤ 0.5	0.5
	50	0	24.62	24.79	24.75		
DFT-s OFDM QPSK	1	1	25.29	25.29	25.26	0	0.0
	1	25	25.39	25.31	25.32		
	1	49	25.18	25.21	25.23		
	25	0	24.79	24.83	24.86	≤ 1	1.0
	25	12	25.23	25.18	25.17	0	0.0
	25	25	24.78	24.89	24.94	≤ 1	1.0
	50	0	24.83	24.88	24.91		
DFT-s OFDM 16QAM	1	1	24.34	24.31	24.34	≤ 1	1.0
	1	25	24.46	24.36	24.36		
	1	49	24.32	24.31	24.31		
DFT-s OFDM 64QAM	1	1	22.93	22.87	22.98	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.87	20.93	20.90	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.87	23.83	23.86	≤ 1.5	1.5

Table 8.4.16.10 NR Conducted Power

NR Band n78 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647000 (3 705.00 MHz)	650000 (3 750.00 MHz)	653000 (3 795.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	25.08	25.11	25.12	0	0.0
	1	12	25.13	25.17	25.18		
	1	22	25.06	25.04	25.02		
	12	0	24.67	24.63	24.64	≤ 0.5	0.5
	12	6	25.10	25.04	25.11	0	0.0
	12	12	24.72	24.68	24.71	≤ 0.5	0.5
	24	0	24.58	24.74	24.75		
DFT-s OFDM QPSK	1	1	25.24	25.16	25.16	0	0.0
	1	12	25.27	25.26	25.25		
	1	22	25.10	25.18	25.18		
	12	0	24.82	24.86	24.80	≤ 1	1.0
	12	6	25.13	25.20	25.16	0	0.0
	12	12	24.73	24.82	24.81	≤ 1	1.0
	24	0	24.81	24.85	24.88		
DFT-s OFDM 16QAM	1	1	24.29	24.18	24.23	≤ 1	1.0
	1	12	24.35	24.35	24.25		
	1	22	24.21	24.26	24.24		
DFT-s OFDM 64QAM	1	1	22.91	22.82	22.94	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	20.89	20.87	20.76	≤ 4.5	4.5
CP OFDM QPSK	1	1	23.81	23.80	23.78	≤ 1.5	1.5

Table 8.4.16.11 NR Conducted Power

CA Conf.	RF Expos. Cond.	UL																					
		PCC						SCC						MPR	Standalone					PCC		SCC	
		Modulation	RB Size	RB Offset	BW	Freq.	Ch.	Modulation	RB Size	RB Offset	BW	Freq.	Ch.		PCC	Aggre gated BW	SCC	Aggre gated BW	MPR	Tune-Up Limit	Tune-Up Limit	CA Power	CA Power
2A-78A	Body	DFT-s OFDM QPSK	1	107	40	1880.0	376000	DFT-s OFDM QPSK	1	136	100	3750.00	650000	0	22.65	40	25.52	100	0	22.00	25.00	20.50	23.45
5A-78A	Body	DFT-s OFDM QPSK	1	52	20	836.5	167300	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	23.29	20	25.52	100	0	22.00	25.00	20.84	23.60
7A-78A	Body	DFT-s OFDM QPSK	1	107	40	2535.0	507000	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	22.35	40	25.52	100	0	22.00	25.00	20.13	23.55
12A-78A	Body	DFT-s OFDM QPSK	1	39	15	707.5	141500	DFT-s OFDM QPSK	1	136	100	3750.00	650000	0	22.87	15	25.52	100	0	22.00	25.00	20.76	23.68
25A-78A	Body	DFT-s OFDM QPSK	1	107	40	1882.5	376500	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	22.88	40	25.52	100	0	22.00	25.00	20.81	23.55
26A-78A	Body	DFT-s OFDM QPSK	1	52	20	831.5	166300	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	22.86	20	25.52	100	0	22.00	25.00	20.64	23.42
66A-78A	Body	DFT-s OFDM QPSK	1	107	40	1745.0	349000	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	23.01	40	25.52	100	0	22.00	25.00	20.85	23.69
71A-78A	Body	DFT-s OFDM QPSK	1	52	20	680.5	136100	DFT-s OFDM QPSK	1	136	100	3750.0	650000	0	22.93	20	25.52	100	0	22.00	25.00	20.82	23.51

Table 8.4.16.12 NR Conducted Power

Band & Mode		Modulated Average[dBm]
NR Band n78(ENDC)	Maximum	23.5
	Nominal	21.5

Table 8.4.16-1.1 Nominal and Maximum Output Power Spec

16-1) NR Band n78(ENDC)

NR Band n78 Conducted Power– 100 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.14	0	0.0
	1	136	22.27		
	1	271	22.18		
	135	0	21.80	≤ 0.5	0.5
	135	67	21.99	0	0.0
	135	135	21.85	≤ 0.5	0.5
	270	0	21.89		
DFT-s OFDM QPSK	1	1	22.28	0	0.0
	1	136	22.39		
	1	271	22.34		
	135	0	21.87	≤ 1	1.0
	135	67	22.14	0	0.0
	135	135	21.85	≤ 1	1.0
	270	0	21.91		
DFT-s OFDM 16QAM	1	1	21.36	≤ 1	1.0
	1	136	21.41		
	1	271	21.37		
DFT-s OFDM 64QAM	1	1	20.02	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.88	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.81	≤ 1.5	1.5

Table 8.4.16-1.2 NR Conducted Power

NR Band n78 Conducted Power– 90 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.05	0	0.0
	1	122	22.13		
	1	243	22.08		
	120	0	21.55	≤ 0.5	0.5
	120	60	21.90	0	0.0
	120	120	21.70	≤ 0.5	0.5
	243	0	21.74		
DFT-s OFDM QPSK	1	1	22.22	0	0.0
	1	122	22.24		
	1	243	22.14		
	120	0	21.70	≤ 1	1.0
	120	60	21.99	0	0.0
	120	120	21.73	≤ 1	1.0
	243	0	21.75		
DFT-s OFDM 16QAM	1	1	21.26	≤ 1	1.0
	1	122	21.30		
	1	243	21.18		
DFT-s OFDM 64QAM	1	1	19.87	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.82	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.74	≤ 1.5	1.5

Table 8.4.16-1.3 NR Conducted Power

NR Band n78 Conducted Power– 80 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	22.09	0	0.0
	1	108	22.15		
	1	215	21.99		
	108	0	21.63	≤ 0.5	0.5
	108	54	21.92	0	0.0
	108	108	21.70	≤ 0.5	0.5
	216	0	21.64		
DFT-s OFDM QPSK	1	1	22.25	0	0.0
	1	108	22.27		
	1	215	22.18		
	108	0	21.85	≤ 1	1.0
	108	54	21.96	0	0.0
	108	108	21.82	≤ 1	1.0
	216	0	21.76		
DFT-s OFDM 16QAM	1	1	21.27	≤ 1	1.0
	1	108	21.30		
	1	215	21.20		
DFT-s OFDM 64QAM	1	1	19.80	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.79	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.78	≤ 1.5	1.5

Table 8.4.16-1.4 NR Conducted Power

NR Band n78 Conducted Power– 70 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	21.88	0	0.0
	1	94	22.05		
	1	187	21.97		
	90	0	21.70	≤ 0.5	0.5
	90	45	21.93	0	0.0
	90	90	21.64	≤ 0.5	0.5
	180	0	21.61		
DFT-s OFDM QPSK	1	1	22.05	0	0.0
	1	94	22.15		
	1	187	22.11		
	90	0	21.77	≤ 1	1.0
	90	45	21.99	0	0.0
	90	90	21.80	≤ 1	1.0
	180	0	21.75		
DFT-s OFDM 16QAM	1	1	21.13	≤ 1	1.0
	1	94	21.24		
	1	187	21.15		
DFT-s OFDM 64QAM	1	1	19.71	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.69	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.63	≤ 1.5	1.5

Table 8.4.16-1.5 NR Conducted Power

NR Band n78 Conducted Power– 60 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			650000 (3 750.00 MHz)		
			Conducted Power (dBm)		
DFT-s OFDM $\pi/2$ BPSK	1	1	21.95	0	0.0
	1	80	22.06		
	1	160	21.96		
	81	0	21.51	≤ 0.5	0.5
	81	40	21.88	0	0.0
	81	81	21.62	≤ 0.5	0.5
	162	0	21.51		
DFT-s OFDM QPSK	1	1	22.16	0	0.0
	1	80	22.23		
	1	160	22.04		
	81	0	21.65	≤ 1	1.0
	81	40	21.93	0	0.0
	81	81	21.79	≤ 1	1.0
	162	0	21.70		
DFT-s OFDM 16QAM	1	1	21.19	≤ 1	1.0
	1	80	21.24		
	1	160	21.14		
DFT-s OFDM 64QAM	1	1	19.72	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.73	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.72	≤ 1.5	1.5

Table 8.4.16-1.6 NR Conducted Power

NR Band n78 Conducted Power– 50 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648333 (3 725.00 MHz)	651666 (3 774.99 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	22.05	21.97	0	0.0
	1	66	22.12	22.08		
	1	131	22.06	21.92		
	64	0	21.66	21.73	≤ 0.5	0.5
	64	32	21.95	21.86	0	0.0
	64	64	21.67	21.64	≤ 0.5	0.5
	128	0	21.64	21.68		
DFT-s OFDM QPSK	1	1	22.11	22.02	0	0.0
	1	66	22.30	22.28		
	1	131	22.21	22.07		
	64	0	21.82	21.82	≤ 1	1.0
	64	32	21.99	21.90	0	0.0
	64	64	21.82	21.76	≤ 1	1.0
	128	0	21.78	21.78		
DFT-s OFDM 16QAM	1	1	21.13	21.17	≤ 1	1.0
	1	66	21.32	21.36		
	1	131	21.29	21.09		
DFT-s OFDM 64QAM	1	1	19.76	19.84	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.76	17.77	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.70	20.71	≤ 1.5	1.5

Table 8.4.16-1.7 NR Conducted Power

NR Band n78 Conducted Power– 40 MHz Bandwidth						
Modulation	RB Size	RB Offset	Low-Mid Channel	Mid-High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			648000 (3 720.00 MHz)	652000 (3 780.00 MHz)		
			Conducted Power (dBm)			
DFT-s OFDM π/2 BPSK	1	1	21.95	21.98	0	0.0
	1	52	22.04	22.01		
	1	104	22.02	21.97		
	50	0	21.55	21.62	≤ 0.5	0.5
	50	25	21.94	22.04	0	0.0
	50	50	21.58	21.59	≤ 0.5	0.5
	100	0	21.57	21.61		
DFT-s OFDM QPSK	1	1	22.01	22.08	0	0.0
	1	52	22.21	22.14		
	1	104	22.03	22.02		
	50	0	21.75	21.80	≤ 1	1.0
	50	25	22.11	22.09	0	0.0
	50	50	21.69	21.70	≤ 1	1.0
	100	0	21.64	21.82		
DFT-s OFDM 16QAM	1	1	21.03	21.15	≤ 1	1.0
	1	52	21.29	21.18		
	1	104	21.15	21.17		
DFT-s OFDM 64QAM	1	1	19.73	19.66	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.66	17.69	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.71	20.59	≤ 1.5	1.5

Table 8.4.16-1.8 NR Conducted Power

NR Band n78 Conducted Power– 30 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647500 (3 715.02 MHz)	650000 (3 750.00 MHz)	652332 (3 784.98 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	22.07	21.90	22.15	0	0.0
	1	39	22.09	21.99	22.16		
	1	76	21.94	21.93	21.95		
	36	0	21.63	21.65	21.68	≤ 0.5	0.5
	36	18	21.95	21.94	21.93	0	0.0
	36	36	21.54	21.78	21.58	≤ 0.5	0.5
	75	0	21.54	21.53	21.55		
DFT-s OFDM QPSK	1	1	22.11	22.02	22.30	0	0.0
	1	39	22.16	22.08	22.36		
	1	76	22.11	22.02	22.19		
	36	0	21.75	21.75	21.74	≤ 1	1.0
	36	18	22.12	22.05	21.96	0	0.0
	36	36	21.76	21.83	21.64	≤ 1	1.0
	75	0	21.65	21.66	21.67		
DFT-s OFDM 16QAM	1	1	21.15	21.17	21.33	≤ 1	1.0
	1	39	21.27	21.19	21.39		
	1	76	21.20	21.09	21.19		
DFT-s OFDM 64QAM	1	1	19.72	19.78	19.86	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.74	17.58	17.92	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.65	20.76	20.81	≤ 1.5	1.5

Table 8.4.16-1.9 NR Conducted Power

NR Band n78 Conducted Power~ 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647334 (3 710.01 MHz)	650000 (3 750.00 MHz)	652666 (3 789.99 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM π/2 BPSK	1	1	22.02	22.06	21.98	0	0.0
	1	25	22.03	22.14	22.03		
	1	49	21.93	22.00	21.98		
	25	0	21.64	21.70	21.56	≤ 0.5	0.5
	25	12	21.88	21.97	21.91	0	0.0
	25	25	21.58	21.59	21.63	≤ 0.5	0.5
	50	0	21.50	21.62	21.61		
DFT-s OFDM QPSK	1	1	22.14	22.14	22.11	0	0.0
	1	25	22.30	22.23	22.22		
	1	49	22.01	22.10	22.05		
	25	0	21.69	21.72	21.70	≤ 1	1.0
	25	12	22.06	22.06	22.00	0	0.0
	25	25	21.66	21.79	21.81	≤ 1	1.0
	50	0	21.69	21.70	21.79		
DFT-s OFDM 16QAM	1	1	21.24	21.16	21.17	≤ 1	1.0
	1	25	21.32	21.26	21.27		
	1	49	21.22	21.20	21.20		
DFT-s OFDM 64QAM	1	1	19.84	19.72	19.85	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.71	17.84	17.77	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.78	20.67	20.74	≤ 1.5	1.5

Table 8.4.16-1.10 NR Conducted Power

NR Band n78 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			647000 (3 705.00 MHz)	650000 (3 750.00 MHz)	653000 (3 795.00 MHz)		
			Conducted Power (dBm)				
DFT-s OFDM $\pi/2$ BPSK	1	1	21.97	21.95	21.99	0	0.0
	1	12	22.01	22.08	22.00		
	1	22	21.91	21.87	21.93		
	12	0	21.50	21.53	21.47	≤ 0.5	0.5
	12	6	21.92	21.92	21.98	0	0.0
	12	12	21.56	21.52	21.56	≤ 0.5	0.5
	24	0	21.45	21.57	21.64		
DFT-s OFDM QPSK	1	1	22.15	21.98	22.05	0	0.0
	1	12	22.19	22.11	22.15		
	1	22	22.00	22.01	22.07		
	12	0	21.71	21.74	21.63	≤ 1	1.0
	12	6	21.95	22.09	22.01	0	0.0
	12	12	21.64	21.65	21.71	≤ 1	1.0
	24	0	21.71	21.69	21.70		
DFT-s OFDM 16QAM	1	1	21.18	21.05	21.14	≤ 1	1.0
	1	12	21.24	21.19	21.19		
	1	22	21.05	21.17	21.12		
DFT-s OFDM 64QAM	1	1	19.81	19.70	19.78	≤ 2.5	2.5
DFT-s OFDM 256QAM	1	1	17.71	17.70	17.60	≤ 4.5	4.5
CP OFDM QPSK	1	1	20.72	20.64	20.65	≤ 1.5	1.5

Table 8.4.16-1.11 NR Conducted Power

9. SYSTEM VERIFICATION

9.1 Tissue Verification_Int Ant

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Mar. 25. 2026 (n71)	750 Head	20.2	20.1	673.00	42.311	0.885	41.734	0.875	-1.36	-1.12
				680.50	42.273	0.885	41.700	0.878	-1.36	-0.83
				688.00	42.231	0.886	41.672	0.880	-1.32	-0.66
				750.00	41.900	0.890	41.467	0.898	-1.03	0.90
Apr. 07. 2026 (B71)	750 Head	21.8	21.7	673.00	42.311	0.885	41.593	0.873	-1.70	-1.34
				680.50	42.273	0.885	41.568	0.876	-1.67	-1.05
				688.00	42.231	0.886	41.542	0.879	-1.63	-0.78
				750.00	41.900	0.890	41.333	0.897	-1.35	0.79
Mar. 23. 2026 (n12)	750 Head	20.1	20.0	706.50	42.135	0.887	41.113	0.888	-2.42	0.11
				707.50	42.129	0.887	41.109	0.888	-2.42	0.10
				708.50	42.124	0.887	41.105	0.889	-2.42	0.20
				750.00	41.900	0.890	40.962	0.902	-2.24	1.35
Mar. 24. 2026 (n13/14)	750 Head	20.3	20.2	750.00	41.900	0.890	41.395	0.878	-1.21	-1.35
				782.00	41.749	0.894	41.299	0.888	-1.08	-0.64
				793.00	41.698	0.895	41.281	0.891	-1.00	-0.45
Mar. 27. 2026 (B12)	750 Head	20.4	20.3	704.00	42.145	0.887	41.094	0.888	-2.49	0.12
				707.50	42.129	0.887	41.085	0.889	-2.48	0.21
				711.00	42.108	0.887	41.074	0.890	-2.46	0.29
				750.00	41.900	0.890	40.959	0.901	-2.25	1.24
Mar. 30. 2026 (B13/14)	750 Head	20.5	20.4	750.00	41.900	0.890	40.907	0.892	-2.37	0.22
				782.00	41.749	0.894	40.796	0.901	-2.28	0.81
				793.00	41.698	0.895	40.781	0.904	-2.20	1.00
Mar. 13. 2026 (n26)	835 Head	21.3	21.2	824.00	41.552	0.899	41.440	0.923	-0.27	2.70
				831.50	41.519	0.900	41.422	0.925	-0.23	2.83
				835.00	41.500	0.900	41.409	0.927	-0.22	3.00
				839.00	41.500	0.904	41.403	0.928	-0.23	2.62
Mar. 17. 2026 (B5)	835 Head	20.4	20.3	829.00	41.528	0.899	40.875	0.910	-1.57	1.19
				835.00	41.500	0.900	40.855	0.913	-1.55	1.44
				836.50	41.500	0.901	40.849	0.913	-1.57	1.32
				844.00	41.500	0.910	40.828	0.916	-1.62	0.69
Apr. 02. 2026 (B26)	835 Head	20.7	20.6	821.50	41.566	0.898	40.181	0.913	-3.33	1.63
				831.50	41.519	0.900	40.151	0.917	-3.29	1.94
				835.00	41.500	0.900	40.150	0.919	-3.25	2.11
				841.50	41.500	0.906	40.132	0.921	-3.30	1.60
Mar. 16. 2026 (n66)	1 800 Head	20.2	20.1	1 730.00	40.100	1.360	39.459	1.365	-1.60	0.37
				1 745.00	40.079	1.369	39.440	1.374	-1.59	0.40
				1 760.00	40.057	1.377	39.432	1.382	-1.56	0.35
				1 800.00	40.000	1.400	39.410	1.406	-1.48	0.43
Apr. 06. 2026 (B66)	1 800 Head	21.7	21.6	1 720.00	40.114	1.354	40.479	1.371	0.91	1.23
				1 745.00	40.079	1.369	40.441	1.386	0.90	1.27
				1 770.00	40.043	1.383	40.415	1.400	0.93	1.24
				1 800.00	40.000	1.400	40.384	1.418	0.96	1.29
Mar. 12. 2026 (n25)	1 900 Head	21.6	21.5	1 870.00	40.000	1.400	38.900	1.386	-2.75	-1.00
				1 882.50	40.000	1.400	38.895	1.393	-2.76	-0.50
				1 895.00	40.000	1.400	38.891	1.400	-2.77	0.00
				1 900.00	40.000	1.400	38.888	1.403	-2.78	0.21
Mar. 10. 2026 (B2)	1 900 Head	21.1	21.0	1 860.00	40.000	1.400	39.302	1.377	-1.75	-1.64
				1 880.00	40.000	1.400	39.271	1.388	-1.82	-0.86
				1 900.00	40.000	1.400	39.245	1.398	-1.89	-0.14
Apr. 01. 2026 (B25)	1 900 Head	20.9	20.8	1 860.00	40.000	1.400	40.621	1.410	1.55	0.71
				1 882.50	40.000	1.400	40.602	1.422	1.50	1.57
				1 900.00	40.000	1.400	40.594	1.432	1.49	2.29
				1 905.00	40.000	1.400	40.595	1.436	1.49	2.57
Mar. 09. 2026 (n7)	2 600 Head	20.8	20.7	2 520.00	39.107	1.875	39.715	1.895	1.56	1.08
				2 535.00	39.087	1.891	39.697	1.908	1.56	0.92
				2 550.00	39.067	1.907	39.679	1.921	1.57	0.75
				2 600.00	39.000	1.960	39.616	1.963	1.58	0.15
Mar. 19. 2026 (n41)	2 600 Head	20.9	20.8	2 546.00	39.072	1.902	40.240	1.927	2.99	1.29
				2 593.00	39.011	1.951	40.174	1.967	2.99	0.74
				2 600.00	39.000	1.960	40.165	1.974	2.99	0.71
				2 640.00	38.950	2.004	40.111	2.008	2.98	0.20
Mar. 26. 2026 (B7)	2 600 Head	20.6	20.5	2 510.00	39.120	1.864	40.392	1.898	3.25	1.82
				2 535.00	39.087	1.891	40.356	1.920	3.25	1.55
				2 560.00	39.053	1.917	40.321	1.942	3.25	1.29
				2 600.00	39.000	1.960	40.267	1.976	3.25	0.82
Apr. 03. 2026 (B41)	2 600 Head	21.1	21.0	2 506.00	39.125	1.860	39.391	1.878	0.68	0.98
				2 549.50	39.068	1.906	39.339	1.915	0.69	0.49
				2 593.00	39.009	1.953	39.287	1.952	0.71	-0.03
				2 600.00	39.000	1.960	39.279	1.958	0.72	-0.10
				2 636.50	38.955	2.000	39.234	1.989	0.72	-0.53
				2 680.00	38.900	2.048	39.183	2.027	0.73	-1.03
Mar. 20. 2026 (n77)	3700 3900 Head	20.8	20.7	3 500.00	37.900	2.910	37.329	2.834	-1.51	-2.61
				3 700.00	37.700	3.118	36.998	3.054	-1.86	-2.05
				3 750.00	37.650	3.170	36.898	3.108	-2.00	-1.96
				3 900.00	37.500	3.326	36.639	3.278	-2.30	-1.44
				3 930.00	37.470	3.357	36.595	3.310	-2.34	-1.41

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB 865664 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the sample which was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity, for example from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r'(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r'} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

9.2 Test System Verification_Int Ant

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at using the SAR Dipole kit(s). (Graphic Plots Attached)

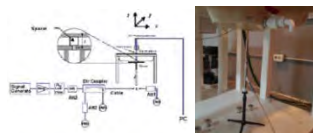
Table 9.2.1 System Verification Results (1g)

SYSTEM DIPOLE VERIFICATION TARGET & MEASURED												
SAR System #	Freq. [MHz]	SAR Dipole kits	Date(s)	Tissue Type	Ambient Temp. [°C]	Liquid Temp. [°C]	Probe S/N	Input Power (mW)	1 W Target SAR _{1g} (W/kg)	Measured SAR _{1g} (W/kg)	1 W Normalized SAR _{1g} (W/kg)	Deviation [%]
B	750 (n71)	D750V3, SN:1049	Mar. 25. 2026	Head	20.2	20.1	7898	250	8.76	2.27	9.08	3.65
B	750 (B71)	D750V3, SN:1049	Apr. 07. 2026	Head	21.8	21.7	7898	250	8.76	2.17	8.68	-0.91
B	750 (n12)	D750V3, SN:1049	Mar. 23. 2026	Head	20.1	20.0	7898	250	8.76	2.19	8.76	0.00
B	750 (n13/14)	D750V3, SN:1049	Mar. 24. 2026	Head	20.3	20.2	7898	250	8.76	2.11	8.44	-3.65
B	750 (B12)	D750V3, SN:1049	Mar. 27. 2026	Head	20.4	20.3	7898	250	8.76	2.07	8.28	-5.48
B	750 (B13/14)	D750V3, SN:1049	Mar. 30. 2026	Head	20.5	20.4	7898	250	8.76	2.15	8.60	-1.83
B	835 (n26)	D835V2, SN:4d159	Mar. 13. 2026	Head	21.3	21.2	7898	250	9.47	2.29	9.16	-3.27
B	835 (B5)	D835V2, SN:4d159	Mar. 17. 2026	Head	20.4	20.3	7898	250	9.47	2.31	9.24	-2.43
B	835 (B26)	D835V2, SN:4d159	Apr. 02. 2026	Head	20.7	20.6	7898	250	9.47	2.39	9.56	0.95
B	1 800 (n66)	D1800V2, SN:2d202	Mar. 16. 2026	Head	20.2	20.1	7898	100	38.70	3.83	38.30	-1.03
B	1 800 (B66)	D1800V2, SN:2d202	Apr. 06. 2026	Head	21.7	21.6	7898	100	38.70	3.77	37.70	-2.58
B	1 900 (n25)	D1900V2, SN:5d176	Mar. 12. 2026	Head	21.6	21.5	7898	100	40.20	4.19	41.90	4.23
B	1 900 (B2)	D1900V2, SN:5d176	Mar. 10. 2026	Head	21.1	21.0	7898	100	40.20	4.01	40.10	-0.25
B	1 900 (B25)	D1900V2, SN:5d176	Apr. 01. 2026	Head	20.9	20.8	7898	100	40.20	4.15	41.50	3.23
B	2 600 (n7)	D2600V2, SN:1103	Mar. 09. 2026	Head	20.8	20.7	7898	100	56.50	5.82	58.20	3.01
B	2 600 (n41)	D2600V2, SN:1103	Mar. 19. 2026	Head	20.9	20.8	7898	100	56.50	5.76	57.60	1.95
B	2 600 (B7)	D2600V2, SN:1103	Mar. 26. 2026	Head	20.6	20.5	7898	100	56.50	5.59	55.90	-1.06
B	2 600 (B41)	D2600V2, SN:1103	Apr. 03. 2026	Head	21.1	21.0	7898	100	56.50	5.68	56.80	0.53
B	3 500 (n77)	D3500V2, SN: 1018	Mar. 20. 2026	Head	20.8	20.7	3866	100	63.50	6.38	63.80	0.47
B	3 700 (n77)	D3700V2, SN: 1023	Mar. 20. 2026	Head	20.8	20.7	3866	100	67.60	6.73	67.30	-0.44
B	3 900 (n77)	D3900V2, SN: 1037	Mar. 20. 2026	Head	20.8	20.7	3866	100	69.60	6.89	68.90	-1.01

Note(s):

1. System Verification was measured with input 250 mW, 100 mW and normalized to 1W.

2. Full system validation status and results can be found in Appendix D.

**Figure 9.1 Dipole Verification Test Setup Diagram & Photo**

9.3 Tissue Verification_Ext Ant

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, ϵ_r	Target Conductivity, σ (S/m)	Measured Dielectric Constant, ϵ_r	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Apr. 30. 2026 (n71)	750 Head	21.5	21.4	673.00	42.311	0.885	41.437	0.873	-2.07	-1.36
				680.50	42.273	0.885	41.410	0.875	-2.04	-1.13
				688.00	42.231	0.886	41.383	0.877	-2.01	-1.02
				750.00	41.900	0.890	41.170	0.896	-1.74	0.67
Apr. 20. 2026 (B71)	750 Head	22.4	22.3	673.00	42.311	0.885	41.153	0.872	-2.74	-1.47
				680.50	42.273	0.885	41.127	0.875	-2.71	-1.13
				688.00	42.231	0.886	41.102	0.877	-2.67	-1.02
				750.00	41.900	0.890	40.903	0.894	-2.38	0.45
Apr. 22. 2026 (n12/13/14)	750 Head	22.6	22.5	706.50	42.135	0.887	42.105	0.882	-0.07	-0.56
				707.50	42.129	0.887	42.102	0.883	-0.06	-0.45
				708.50	42.124	0.887	42.101	0.883	-0.05	-0.45
				750.00	41.900	0.890	41.991	0.898	0.22	0.90
				782.00	41.749	0.894	41.824	0.909	0.18	1.68
				793.00	41.698	0.895	41.786	0.913	0.21	2.01
Apr. 13. 2026 (B12/13/14)	750 Head	22.6	22.5	704.00	42.145	0.887	41.473	0.876	-1.59	-1.24
				707.50	42.129	0.887	41.464	0.877	-1.58	-1.13
				711.00	42.108	0.887	41.455	0.878	-1.55	-1.01
				750.00	41.900	0.890	41.384	0.893	-1.23	0.34
				782.00	41.749	0.894	41.237	0.905	-1.23	1.23
				793.00	41.698	0.895	41.191	0.909	-1.22	1.56
Apr. 24. 2026 (n26)	835 Head	22.7	22.6	824.00	41.552	0.899	41.002	0.930	-1.32	3.45
				831.50	41.519	0.900	40.968	0.934	-1.33	3.78
				835.00	41.500	0.900	40.952	0.935	-1.32	3.89
				839.00	41.500	0.904	40.940	0.937	-1.35	3.65
Apr. 09. 2026 (B5)	835 Head	21.9	21.8	829.00	41.528	0.899	40.669	0.931	-2.07	3.56
				835.00	41.500	0.900	40.644	0.934	-2.06	3.78
				836.50	41.500	0.901	40.637	0.934	-2.08	3.66
				844.00	41.500	0.910	40.624	0.938	-2.11	3.08
Apr. 15. 2026 (B26)	835 Head	22.9	22.8	821.50	41.566	0.898	40.002	0.928	-3.76	3.34
				831.50	41.519	0.900	39.970	0.932	-3.73	3.56
				835.00	41.500	0.900	39.958	0.933	-3.72	3.67
				841.50	41.500	0.906	39.944	0.935	-3.75	3.20
Apr. 29. 2026 (n66)	1 800 Head	21.7	21.6	1 730.00	40.100	1.360	39.611	1.366	-1.22	0.44
				1 745.00	40.079	1.369	39.568	1.372	-1.27	0.22
				1 760.00	40.057	1.377	39.538	1.377	-1.30	0.00
				1 800.00	40.000	1.400	39.480	1.392	-1.30	-0.57
Apr. 17. 2026 (B66)	1 800 Head	22.7	22.6	1 720.00	40.114	1.354	39.395	1.364	-1.79	0.74
				1 745.00	40.079	1.369	39.325	1.374	-1.88	0.37
				1 770.00	40.043	1.383	39.276	1.382	-1.92	-0.07
				1 800.00	40.000	1.400	39.243	1.393	-1.89	-0.50
Apr. 23. 2026 (n25)	1 900 Head	22.5	22.4	1 870.00	40.000	1.400	38.872	1.365	-2.82	-2.50
				1 882.50	40.000	1.400	38.868	1.372	-2.83	-2.00
				1 895.00	40.000	1.400	38.864	1.379	-2.84	-1.50
				1 900.00	40.000	1.400	38.860	1.382	-2.85	-1.29
Apr. 08. 2026 (B2)	1 900 Head	21.6	21.5	1 860.00	40.000	1.400	38.563	1.355	-3.59	-3.21
				1 880.00	40.000	1.400	38.556	1.365	-3.61	-2.50
				1 900.00	40.000	1.400	38.551	1.377	-3.62	-1.64
Apr. 14. 2026 (B25)	1 900 Head	22.7	22.6	1 860.00	40.000	1.400	38.775	1.359	-3.06	-2.93
				1 882.50	40.000	1.400	38.768	1.369	-3.08	-2.21
				1 900.00	40.000	1.400	38.758	1.379	-3.10	-1.50
				1 905.00	40.000	1.400	38.755	1.382	-3.11	-1.29
Apr. 21. 2026 (n7)	2 600 Head	22.8	22.7	2 520.00	39.107	1.875	38.888	1.872	-0.56	-0.16
				2 535.00	39.087	1.891	38.875	1.884	-0.54	-0.37
				2 550.00	39.067	1.907	38.855	1.899	-0.54	-0.42
				2 600.00	39.000	1.960	38.811	1.933	-0.48	-1.38
Apr. 28. 2026 (n41)	2 600 Head	21.6	21.5	2 546.00	39.072	1.902	39.375	1.906	0.78	0.21
				2 593.00	39.011	1.951	39.326	1.941	0.81	-0.51
				2 600.00	39.000	1.960	39.319	1.947	0.82	-0.66
				2 640.00	38.950	2.004	39.270	1.977	0.82	-1.35
Apr. 10. 2026 (B7)	2 600 Head	20.6	20.5	2 510.00	39.120	1.864	39.108	1.870	-0.03	0.32
				2 535.00	39.087	1.891	39.080	1.889	-0.02	-0.11
				2 560.00	39.053	1.917	39.055	1.908	0.01	-0.47
				2 600.00	39.000	1.960	39.011	1.938	0.03	-1.12
Apr. 16. 2026 (B41)	2 600 Head	22.5	22.4	2 506.00	39.125	1.860	39.308	1.842	0.47	-0.97
				2 549.50	39.068	1.906	39.239	1.877	0.44	-1.52
				2 593.00	39.009	1.953	39.194	1.910	0.47	-2.20
				2 600.00	39.000	1.960	39.183	1.916	0.47	-2.24
				2 636.50	38.955	2.000	39.123	1.943	0.43	-2.85
				2 680.00	38.900	2.048	39.075	1.979	0.45	-3.37
May. 04. 2026 (n77)	3700 3900 Head	21.4	21.3	3 500.00	37.900	2.910	37.369	2.827	-1.40	-2.85
				3 700.00	37.700	3.118	37.080	3.046	-1.64	-2.31
				3 750.00	37.650	3.170	36.984	3.100	-1.77	-2.21
				3 900.00	37.500	3.326	36.745	3.269	-2.01	-1.71
				3 930.00	37.470	3.357	36.703	3.301	-2.05	-1.67

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB 865664 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software

Measurement Procedure for Tissue verification:

- 1) The network analyzer and probe system was configured and calibrated.
- 2) The probe was immersed in the sample which was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
- 3) The complex admittance with respect to the probe aperture was measured
- 4) The complex relative permittivity, for example from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\epsilon_r\epsilon_0}{[\ln(b/a)]^2} \int_a^b \int_a^b \int_0^\pi \cos\phi' \frac{\exp[-j\omega r(\mu_0\epsilon_r'\epsilon_0)^{1/2}]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

9.4 Test System Verification_Ext Ant

Prior to assessment, the system is verified to the $\pm 10\%$ of the specifications at using the SAR Dipole kit(s). (Graphic Plots Attached)

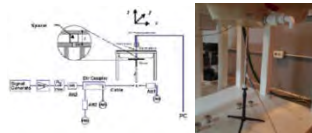
Table 9.4.2 System Verification Results (1g)

SYSTEM DIPOLE VERIFICATION TARGET & MEASURED												
SAR System #	Freq. [MHz]	SAR Dipole kits	Date(s)	Tissue Type	Ambient Temp. [°C]	Liquid Temp. [°C]	Probe S/N	Input Power (mW)	1 W Target SAR _{1g} (W/kg)	Measured SAR _{1g} (W/kg)	1 W Normalized SAR _{1g} (W/kg)	Deviation [%]
B	750 (n71)	D750V3, SN:1049	Apr. 30. 2026	Head	21.5	21.4	7898	250	8.76	2.06	8.24	-5.94
B	750 (B71)	D750V3, SN:1049	Apr. 20. 2026	Head	22.4	22.3	7898	250	8.76	2.04	8.16	-6.85
B	750 (n12/13/14)	D750V3, SN:1049	Apr. 22. 2026	Head	22.6	22.5	7898	250	8.76	2.11	8.44	-3.65
B	750 (B12/13/14)	D750V3, SN:1049	Apr. 13. 2026	Head	22.6	22.5	7898	250	8.76	2.33	9.32	6.39
B	835 (n26)	D835V2, SN:4d159	Apr. 24. 2026	Head	22.7	22.6	7898	250	9.47	2.23	8.92	-5.81
B	835 (B5)	D835V2, SN:4d159	Apr. 09. 2026	Head	21.9	21.8	7898	250	9.47	2.26	9.04	-4.54
B	835 (B26)	D835V2, SN:4d159	Apr. 15. 2026	Head	22.9	22.8	7898	250	9.47	2.21	8.84	-6.65
B	1 800 (n66)	D1800V2, SN:2d202	Apr. 29. 2026	Head	21.7	21.6	7898	100	38.70	3.69	36.90	-4.65
B	1 800 (B66)	D1800V2, SN:2d202	Apr. 17. 2026	Head	22.7	22.6	7898	100	38.70	3.74	37.40	-3.36
B	1 900 (n25)	D1900V2, SN:5d176	Apr. 23. 2026	Head	22.5	22.4	7898	100	40.20	3.92	39.20	-2.49
B	1 900 (B2)	D1900V2, SN:5d176	Apr. 08. 2026	Head	21.6	21.5	7898	100	40.20	3.88	38.80	-3.48
B	1 900 (B25)	D1900V2, SN:5d176	Apr. 14. 2026	Head	22.7	22.6	7898	100	40.20	3.96	39.60	-1.49
B	2 600 (n7)	D2600V2, SN:1103	Apr. 21. 2026	Head	22.8	22.7	7898	100	56.50	5.71	57.10	1.26
B	2 600 (n41)	D2600V2, SN:1103	Apr. 28. 2026	Head	21.6	21.5	7898	100	56.50	5.51	55.10	-2.48
B	2 600 (B7)	D2600V2, SN:1103	Apr. 10. 2026	Head	20.6	20.5	7898	100	56.50	5.66	56.60	0.18
B	2 600 (B41)	D2600V2, SN:1103	Apr. 16. 2026	Head	22.5	22.4	7898	100	56.50	5.55	55.50	-1.77
B	3 500 (n77)	D3500V2, SN: 1018	May. 04. 2026	Head	21.4	21.3	3916	100	63.50	6.43	64.30	1.26
B	3 700 (n77)	D3700V2, SN: 1023	May. 04. 2026	Head	21.4	21.3	3916	100	67.60	6.82	68.20	0.89
B	3 900 (n77)	D3900V2, SN: 1037	May. 04. 2026	Head	21.4	21.3	3916	100	69.60	7.04	70.40	1.15

Note(s):

1. System Verification was measured with input 250 mW, 100 mW and normalized to 1W.

2. Full system validation status and results can be found in Appendix D.

**Figure 9.1 Dipole Verification Test Setup Diagram & Photo**

10. SAR TEST RESULTS

10.1 Standalone Head/Body SAR Results

Table 10.1.1 LTE Body SAR_Int Ant

MEASUREMENT RESULTS																	
FREQUENCY		Model/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
680.5	133297	LTE B71	20	24.00	22.66	0.010	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.149	1.361	0.203	A1
680.5	133297	LTE B71	20	23.00	21.56	0.040	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1	0.127	1.393	0.177	
707.5	23095	LTE B12	10	24.00	22.19	-0.050	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.130	1.517	0.197	
707.5	23095	LTE B12	10	23.00	21.24	0.070	1	37 mm [Top]	FCC #1	QPSK	25	0	1:1	0.102	1.500	0.153	
707.5	23095	ULCA 12B	5	25.00	23.73	0.050	0	37 mm [Top]	FCC #1	QPSK	1	24	1:1	0.156	1.340	0.209	A2
714.7	23167		10								1	0					
782.0	23230	LTE B13	10	24.00	22.27	-0.030	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.188	1.489	0.280	A3
782.0	23230	LTE B13	10	23.00	21.28	0.070	1	37 mm [Top]	FCC #1	QPSK	25	0	1:1	0.138	1.486	0.205	
793.0	23330	LTE B14	10	24.00	22.31	0.040	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.168	1.476	0.248	A4
793.0	23330	LTE B14	10	23.00	21.33	0.090	1	37 mm [Top]	FCC #1	QPSK	25	0	1:1	0.136	1.469	0.200	
831.5	26865	LTE B26	15	24.00	22.47	0.020	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.161	1.422	0.229	A5
831.5	26865	LTE B26	15	23.00	21.67	0.070	1	37 mm [Top]	FCC #1	QPSK	36	0	1:1	0.124	1.358	0.168	
836.5	20525	LTE B5	10	24.00	22.61	0.130	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.119	1.377	0.164	
836.5	20525	LTE B5	10	23.00	21.62	0.110	1	37 mm [Top]	FCC #1	QPSK	25	0	1:1	0.099	1.374	0.136	
836.5	20525	ULCA 5B	10	25.00	24.26	-0.040	0	37 mm [Top]	FCC #1	QPSK	1	49	1:1	0.142	1.186	0.168	A6
846.4	20624		10								1	0					
1 720.0	132072	LTE B66	20	24.00	22.46	0.120	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.111	1.426	0.158	
1 745.0	132322	LTE B66	20	24.00	22.49	0.070	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.115	1.416	0.163	A7
1 770.0	132572	LTE B66	20	24.00	22.46	0.000	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.109	1.426	0.155	
1 745.0	132322	LTE B66	20	23.00	21.37	0.110	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1	0.088	1.455	0.128	
1 745.0	132322	ULCA 66B	10	24.00	22.43	-0.020	0	37 mm [Top]	FCC #1	QPSK	1	49	1:1	0.108	1.435	0.155	
1 754.9	132421		10								1	0					
1 745.0	132322	ULCA 66C	20	24.00	22.41	0.060	0	37 mm [Top]	FCC #1	QPSK	1	99	1:1	0.101	1.442	0.146	
1 764.8	132520		20								1	0					
1 860.0	26140	LTE B25	20	24.00	22.25	-0.060	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.080	1.496	0.120	
1 882.5	26365	LTE B25	20	24.00	22.31	0.060	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.082	1.476	0.121	A8
1 905.0	26590	LTE B25	20	24.00	22.28	0.100	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.081	1.486	0.120	
1 882.5	26365	LTE B25	20	23.00	21.48	0.100	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1	0.065	1.419	0.092	
1 860.0	18700	LTE B2	20	24.00	22.67	-0.010	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.077	1.358	0.105	
1 880.0	18900	LTE B2	20	24.00	22.73	-0.100	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.083	1.340	0.111	A9
1 900.0	19100	LTE B2	20	24.00	22.60	-0.150	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.075	1.380	0.104	
1 880.0	18900	LTE B2	20	23.00	21.63	0.020	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1	0.067	1.371	0.092	
1 880.0	18900	ULCA 2C	20	24.00	22.68	-0.140	0	37 mm [Top]	FCC #1	QPSK	1	99	1:1	0.081	1.355	0.110	
1 899.8	19098		20								1	0					
2 510.0	20850	LTE B7	20	24.00	22.31	-0.030	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.044	1.476	0.065	
2 535.0	21100	LTE B7	20	24.00	22.34	-0.190	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.045	1.466	0.066	A10
2 560.0	21350	LTE B7	20	24.00	22.33	-0.040	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1	0.044	1.469	0.065	
2 535.0	21100	LTE B7	20	23.00	21.41	-0.150	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1	0.037	1.442	0.053	
2 535.0	21100	ULCA 7C	20	24.00	22.23	0.030	0	37 mm [Top]	FCC #1	QPSK	1	99	1:1	0.043	1.503	0.065	
2 554.8	21298		20								1	0					
2 506.0	39750	LTE B41	20	25.70	23.77	0.160	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1.58	0.020	1.560	0.031	
2 549.5	40185	LTE B41	20	25.70	23.79	-0.070	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1.58	0.023	1.552	0.036	
2 593.0	40620	LTE B41	20	25.70	23.80	-0.090	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1.58	0.028	1.549	0.043	A11
2 636.5	41055	LTE B41	20	25.70	23.75	-0.030	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1.58	0.022	1.567	0.034	
2 680.0	41490	LTE B41	20	25.70	23.77	0.190	0	37 mm [Top]	FCC #1	QPSK	1	0	1:1.58	0.024	1.560	0.037	
2 593.0	40620	LTE B41	20	24.70	22.99	-0.080	1	37 mm [Top]	FCC #1	QPSK	50	0	1:1.58	0.022	1.483	0.033	
2 593.0	40620	ULCA 41C	20	24.00	22.81	0.190	0	37 mm [Top]	FCC #1	QPSK	1	99	1:1.58	0.027	1.315	0.036	
2 612.8	40818		20								1	0					
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure										Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 10.1.2 NR Body SAR_Int Ant

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Waveform/ Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
680.5	136100	NR B71	20	24.00	22.97	-0.150	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	52	1:1	0.070	1.268	0.089	B1
680.5	136100	NR B71	20	24.00	22.94	0.020	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	50	25	1:1	0.068	1.276	0.087	
680.5	136100	NR B71	20	22.50	21.63	0.140	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.052	1.222	0.064	
707.5	141500	NR B12	15	24.00	22.90	0.020	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	39	1:1	0.065	1.288	0.084	B2
707.5	141500	NR B12	15	24.00	22.83	0.010	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	36	18	1:1	0.063	1.309	0.082	
707.5	141500	NR B12	15	22.50	21.59	-0.000	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.044	1.233	0.054	
782.0	156400	NR B13	10	24.00	23.24	0.060	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	25	1:1	0.084	1.191	0.100	B3
782.0	156400	NR B13	10	24.00	23.21	-0.030	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	25	12	1:1	0.082	1.199	0.098	
782.0	156400	NR B13	10	22.50	21.65	0.080	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.062	1.216	0.075	
793.0	158600	NR B14	10	24.00	23.16	-0.060	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	25	1:1	0.086	1.213	0.104	B4
793.0	158600	NR B14	10	24.00	23.15	0.110	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	25	12	1:1	0.085	1.216	0.103	
793.0	158600	NR B14	10	22.50	21.67	-0.010	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.062	1.211	0.075	
831.5	166300	NR B26	20	24.00	22.85	0.030	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	52	1:1	0.078	1.303	0.102	B5
831.5	166300	NR B26	20	24.00	22.79	0.010	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	50	25	1:1	0.077	1.321	0.102	
831.5	166300	NR B26	20	22.50	21.48	-0.010	0	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.055	1.265	0.070	
1 745.0	349000	NR B66	40	24.00	22.97	0.060	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.058	1.268	0.074	B6
1 745.0	349000	NR B66	40	24.00	22.92	-0.060	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.056	1.282	0.072	
1 745.0	349000	NR B66	40	22.50	21.60	-0.050	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.041	1.230	0.050	
1 882.5	376500	NR B25	40	24.00	22.84	-0.140	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.038	1.306	0.050	B7
1 882.5	376500	NR B25	40	24.00	22.77	0.060	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.034	1.327	0.045	
1 882.5	376500	NR B25	40	22.50	21.57	0.020	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.023	1.239	0.028	
2 535.0	507000	NR B7	40	24.00	22.31	0.140	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.024	1.476	0.035	B8
2 535.0	507000	NR B7	40	24.00	22.29	0.090	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.022	1.483	0.033	
2 535.0	507000	NR B7	40	22.50	21.25	-0.000	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.014	1.334	0.019	
2 592.99	518598	NR B41	100	24.00	22.96	-0.080	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.053	1.271	0.067	B9
2 592.99	518598	NR B41	100	24.00	22.92	0.170	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	135	67	1:1	0.051	1.282	0.065	
2 592.99	518598	NR B41	100	22.50	21.49	0.120	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.038	1.262	0.048	
3 750.00	650000	NR B77	100	27.00	25.56	0.040	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.347	1.393	0.483	B10
3 930.00	662000	NR B77	100	27.00	25.46	0.030	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.327	1.426	0.466	
3 750.00	650000	NR B77	100	27.00	25.48	0.110	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	135	67	1:1	0.330	1.419	0.468	
3 930.00	662000	NR B77	100	27.00	25.35	-0.040	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	135	67	1:1	0.323	1.462	0.472	
3 750.00	650000	NR B77	100	26.00	25.01	0.110	1	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	270	0	1:1	0.310	1.256	0.389	
3 750.00	650000	NR B77 DoD	100	27.00	25.47	0.010	0	37 mm [Top]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.273	1.422	0.388	
3 750.00	650000	NR B77	100	25.50	24.32	-0.010	1.5	37 mm [Top]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.284	1.312	0.373	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head/Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 10.1.3 LTE Head SAR_Ext Ant

MEASUREMENT RESULTS

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
680.5	133297	LTE B71	20	24.00	22.71	0.190	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.030	1.346	0.040	C1
680.5	133297	LTE B71	20	23.00	21.66	0.120	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.015	1.361	0.020	
707.5	23095	LTE B12	10	24.00	22.26	-0.020	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.025	1.493	0.037	
707.5	23095	LTE B12	10	23.00	21.32	-0.040	1	40 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.023	1.472	0.034	
707.5	23095	ULCA 12B	5	25.00	23.82	0.070	0	40 mm [Bottom]	FCC #1	QPSK	1	24	1:1	0.037	1.312	0.049	C2
714.7	23167		10								1	0					
782.0	23230	LTE B13	10	24.00	22.34	-0.180	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.031	1.466	0.045	C3
782.0	23230	LTE B13	10	23.00	21.49	0.090	1	40 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.026	1.416	0.037	
793.0	23330	LTE B14	10	24.00	22.44	0.080	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.093	1.432	0.133	C4
793.0	23330	LTE B14	10	23.00	21.42	-0.050	1	40 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.004	1.439	0.006	
831.5	26865	LTE B26	15	24.00	22.53	0.190	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.016	1.403	0.022	C5
831.5	26865	LTE B26	15	23.00	21.58	0.090	1	40 mm [Bottom]	FCC #1	QPSK	36	0	1:1	0.011	1.387	0.015	
836.5	20525	LTE B5	10	24.00	22.67	0.060	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.018	1.358	0.024	
836.5	20525	LTE B5	10	23.00	21.55	0.130	1	40 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.009	1.396	0.013	
836.5	20525	ULCA 5B	10	25.00	24.28	-0.010	0	40 mm [Bottom]	FCC #1	QPSK	1	49	1:1	0.036	1.180	0.042	C6
846.4	20624		10								1	0					
1 720.0	132072	LTE B66	20	24.00	22.49	0.180	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.018	1.416	0.025	
1 745.0	132322	LTE B66	20	24.00	22.55	0.170	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.020	1.396	0.028	C7
1 770.0	132572	LTE B66	20	24.00	22.50	0.100	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.017	1.413	0.024	
1 745.0	132322	LTE B66	20	23.00	21.44	-0.090	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.013	1.432	0.019	
1 745.0	132322	ULCA 66B	10	24.00	22.52	-0.030	0	40 mm [Bottom]	FCC #1	QPSK	1	49	1:1	0.016	1.406	0.022	
1 754.9	132421		10								1	0					
1 745.0	132322	ULCA 66C	20	24.00	22.47	0.100	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.016	1.422	0.023	
1 764.8	132520		20								1	0					
1 860.0	26140	LTE B25	20	24.00	22.32	0.180	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.010	1.472	0.015	
1 882.5	26365	LTE B25	20	24.00	22.33	0.180	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.011	1.469	0.016	C8
1 905.0	26590	LTE B25	20	24.00	22.24	-0.190	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.010	1.500	0.015	
1 882.5	26365	LTE B25	20	23.00	21.48	0.170	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.008	1.419	0.011	
1 860.0	18700	LTE B2	20	24.00	22.73	-0.010	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.021	1.340	0.028	
1 880.0	18900	LTE B2	20	24.00	22.79	-0.070	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.022	1.321	0.029	
1 900.0	19100	LTE B2	20	24.00	22.71	0.070	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.021	1.346	0.028	
1 880.0	18900	LTE B2	20	23.00	21.67	0.130	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.016	1.358	0.022	
1 860.0	18700	ULCA 2C	20	24.00	23.21	0.070	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.028	1.199	0.034	C9
1 879.8	18898		20								1	0					
1 880.0	18900	ULCA 2C	20	24.00	23.26	-0.070	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.032	1.186	0.038	
1 899.8	19098		20								1	0					
1 900.0	19100	ULCA 2C	20	24.00	23.24	0.060	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.029	1.191	0.035	
1 880.2	18902		20								1	0					
2 510.0	20850	LTE B7	20	24.00	22.30	-0.110	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.006	1.479	0.009	
2 535.0	21100	LTE B7	20	24.00	22.38	0.150	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.008	1.452	0.012	C10
2 560.0	21350	LTE B7	20	24.00	22.34	-0.000	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.007	1.466	0.010	
2 535.0	21100	LTE B7	20	23.00	21.35	-0.040	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.002	1.462	0.003	
2 535.0	21100	ULCA 7C	20	24.00	22.20	0.170	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.007	1.514	0.011	
2 554.8	21298		20								1	0					
2 506.0	39750	LTE B41	20	25.70	23.74	-0.010	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1.58	0.006	1.570	0.009	
2 549.5	40185	LTE B41	20	25.70	23.76	0.010	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1.58	0.010	1.563	0.016	
2 593.0	40620	LTE B41	20	25.70	23.80	0.120	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1.58	0.012	1.549	0.019	C11
2 636.5	41055	LTE B41	20	25.70	23.76	0.150	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1.58	0.002	1.563	0.003	
2 680.0	41490	LTE B41	20	25.70	23.77	0.120	0	40 mm [Bottom]	FCC #1	QPSK	1	0	1:1.58	0.007	1.560	0.011	
2 593.0	40620	LTE B41	20	24.70	23.12	-0.010	1	40 mm [Bottom]	FCC #1	QPSK	50	0	1:1.58	0.000147	1.439	<0.001	
2 593.0	40620	ULCA 41C	20	24.00	22.88	-0.170	0	40 mm [Bottom]	FCC #1	QPSK	1	99	1:1.58	0.011	1.294	0.014	
2 612.8	40818		20								1	0					
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure										Head/Body 1.6 W/kg (mW/g) averaged over 1 gram							

Table 10.1.4 NR Head SAR Ext Ant

FREQUENCY		MEASUREMENT RESULTS															
MHz	Ch	Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Waveform/ Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
680.5	136100	NR B71	20	24.00	22.93	-0.060	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	52	1:1	0.015	1.279	0.019	D1
680.5	136100	NR B71	20	24.00	22.92	0.030	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	50	25	1:1	0.012	1.282	0.015	
680.5	136100	NR B71	20	22.50	21.58	0.120	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.008	1.236	0.010	
707.5	141500	NR B12	15	24.00	22.87	-0.010	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	39	1:1	0.013	1.297	0.017	D2
707.5	141500	NR B12	15	24.00	22.85	-0.120	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	36	18	1:1	0.012	1.303	0.016	
707.5	141500	NR B12	15	22.50	21.62	-0.010	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.009	1.225	0.011	
782.0	156400	NR B13	10	24.00	23.19	0.140	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	25	1:1	0.009	1.205	0.011	D3
782.0	156400	NR B13	10	24.00	23.17	0.190	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	25	12	1:1	0.007	1.211	0.008	
782.0	156400	NR B13	10	22.50	21.65	0.150	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.005	1.216	0.006	
793.0	158600	NR B14	10	24.00	23.14	0.010	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	25	1:1	0.004	1.219	0.005	D4
793.0	158600	NR B14	10	24.00	23.04	0.160	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	25	12	1:1	0.003	1.247	0.004	
793.0	158600	NR B14	10	22.50	21.56	-0.080	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.002	1.242	0.002	
831.5	166300	NR B26	20	24.00	22.86	0.080	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	52	1:1	0.009	1.300	0.012	D5
831.5	166300	NR B26	20	24.00	22.78	0.050	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	50	25	1:1	0.007	1.324	0.009	
831.5	166300	NR B26	20	22.50	21.47	0.040	0	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.007	1.268	0.009	
1 745.0	349000	NR B66	40	24.00	23.01	-0.130	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.009	1.256	0.011	D6
1 745.0	349000	NR B66	40	24.00	22.97	0.080	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.008	1.268	0.010	
1 745.0	349000	NR B66	40	22.50	21.65	-0.180	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.006	1.216	0.007	
1 882.5	376500	NR B25	40	24.00	22.88	-0.110	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.013	1.294	0.017	D7
1 882.5	376500	NR B25	40	24.00	22.81	0.090	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.012	1.315	0.016	
1 882.5	376500	NR B25	40	22.50	21.44	0.040	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.008	1.276	0.010	
2 535.0	507000	NR B7	40	24.00	22.35	-0.130	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	108	1:1	0.012	1.462	0.018	D8
2 535.0	507000	NR B7	40	24.00	22.34	-0.060	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	108	54	1:1	0.009	1.466	0.013	
2 535.0	507000	NR B7	40	22.50	21.28	-0.050	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.008	1.324	0.011	
2 592.99	518598	NR B41	100	24.00	22.98	0.090	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.012	1.265	0.015	D9
2 592.99	518598	NR B41	100	24.00	22.87	0.060	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	135	67	1:1	0.010	1.297	0.013	
2 592.99	518598	NR B41	100	22.50	21.46	0.010	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.006	1.271	0.008	
3 750.00	650000	NR B77	100	27.00	25.68	0.050	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.019	1.355	0.026	D10
3 930.00	662000	NR B77	100	27.00	25.64	0.140	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.018	1.368	0.025	
3 750.00	650000	NR B77	100	27.00	25.64	-0.040	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	135	67	1:1	0.017	1.368	0.023	
3 750.00	650000	NR B77 Dcd	100	27.00	25.65	0.020	0	40 mm [Bottom]	FCC #1	DFTS-OFDM QPSK	1	136	1:1	0.016	1.365	0.022	
3 750.00	650000	NR B77	100	25.50	24.46	-0.050	1.5	40 mm [Bottom]	FCC #1	CP-OFDM QPSK	1	1	1:1	0.015	1.271	0.019	
ANSI / IEEE C95.1-1992- SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head/Body 1.6 W/kg (mW/g) averaged over 1 gram								

10.2 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Int Ant Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 37 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Ext Ant Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 40 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
8. SAR measurements were performed using the DASY5 automated system. The procedure for spatial peak SAR evaluation has been implemented according to the IEEE 1528 standard. During a maximum search, global and local maxima searches are automatically performed in 2-D after each area scan measurement. The algorithm will find the global maximum and all local maxima within 2 dB of the global maxima for all SAR distributions. All local maxima within 2 dB of the global maximum were searched and passed for the Zoom Scan measurement.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r05. The general test procedures used for testing can be found in Section 8.4.4.
2. According to FCC KDB 941225 D05v02r05, when the reported SAR is ≤ 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required.
Otherwise, SAR is required for the remaining required test channels using the 1 RB, 50% RB and 100% RB allocation with highest output power for that channel.
Only one channel, and as reported SAR values for 1 RB allocation and 50% RB allocation were less than 1.45 W/kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
4. A-MPR was disabled for all SAR tests by setting NS=1 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
5. Per FCC KDB Publication 447498 D01v06, when the reported (scaled) for LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
6. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r05. Testing was performed using UL-DL configuration 0 with 6 UL sub frames and 2S sub frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633 (cf=1.58).
7. SAR test reduction is applied using the following criteria:
Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is > 0.8 W/kg, testing for other channels is performed at the highest output power level for 1 RB, and 50% RB configuration for that channel. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg, Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg. Testing for 16QAM modulation is not required because the reported SAR

for QPSK is < 1.45 W/kg and its output power is not more than 0.5 dB higher than that a QPSK. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

NR Notes:

1. NR implementation supports SA and NSA mode. In EN-DC mode, NR operates with the LTE Bands shown in the NR RF1 checklist acting as anchor bands. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR TDD was performed using test mode software to establish the connection.
3. Simultaneous transmission analysis for EN-DC operations is addressed in the Test Report.
4. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
5. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
6. Per FCC KDB Publication 447498 D01v06, when the reported NR Band n41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations and > 1.5 W/kg for 10g evaluation, testing at the other channels was required for such test configurations.
7. For final implementation, NR Band n77 slot configuration is synchronized using maximum duty cycle of 100%. SAR testing was performed using FTM mode with a 100% duty cycle applied to match final duty cycle.

11. FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

11.1 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore simultaneous transmission analysis is required. Per FCC KDB 447498 D01v06 4.3.2, simultaneous transmission SAR test exclusion may be applied when the sum of the sum 1-g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤ 1.6 W/kg. The different test positon in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1-g or 10-g SAR.

11.2 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be transmitting simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06.

Table 11.2.1 Simultaneous SAR Cases

No.	Capable Transmit Configuration	Head/Body	Note
1	NR SA ULCA	YES	The simultaneous transmission scenario for the internal and external antennas is the same.
2	ENDC		

11.3 Head/Body SAR Simultaneous Transmission Analysis

Table 11.3.1 Max 4G/5G (Body SAR) _Int Ant

Head/Body	LTE B71	LTE B12	LTE B13	LTE B14	LTE B26	LTE B5	LTE B66	LTE B25	LTE B2	LTE B7	LTE B41	Max
Top Side	0.203	0.197	0.280	0.248	0.229	0.164	0.163	0.121	0.111	0.066	0.043	0.280

Head/Body	n71	n12	n13	n14	n26	n66	n25	n7	n41	n77 DoD	n77	Max
Top Side	0.089	0.084	0.100	0.104	0.102	0.074	0.050	0.035	0.067	0.388	0.483	0.483

Table 11.3.2 Max NR SA ULCA (Body SAR) _Int Ant

Head/Body	SA UL CA_n2A-n77A		SA UL CA_n2A-n78A		SA UL CA_n5A-n77A		SA UL CA_n5A-n78A		SA UL CA_n7A-n77A		Max
	n2A	n77A	n2A	n78A	n5A	n77A	n5A	n78A	n7A	n77A	
Top Side	0.050	0.483	0.050	0.483	0.102	0.483	0.102	0.483	0.035	0.483	N/A
	0.533		0.533		0.585		0.585		0.518		0.585

Head/Body	SA UL CA_n7A-n78A		SA UL CA_n12A-n77A		SA UL CA_n12A-n78A		SA UL CA_n13A-n77A		SA UL CA_n14A-n77A		Max
	n7A	n78A	n12A	n77A	n12A	n78A	n13A	n77A	n14A	n77A	
Top Side	0.035	0.483	0.084	0.483	0.084	0.483	0.100	0.483	0.104	0.483	N/A
	0.518		0.567		0.567		0.583		0.587		0.587

Head/Body	SA UL CA_n25A-n77A		SA UL CA_n25A-n78A		SA UL CA_n26A-n77A		SA UL CA_n26A-n78A		SA UL CA_n66A-n77A		Max
	n25A	n77A	n25A	n78A	n26A	n77A	n26A	n78A	n66A	n77A	
Top Side	0.050	0.483	0.050	0.483	0.102	0.483	0.102	0.483	0.074	0.483	N/A
	0.533		0.533		0.585		0.585		0.557		0.585

Head/Body	SA UL CA_n66A-n78A		SA UL CA_n71A-n77A		SA UL CA_n71A-n78A						Max
	n66A	n78A	n71A	n77A	n71A	n78A					
Top Side	0.074	0.483	0.089	0.483	0.089	0.483					N/A
	0.557		0.572		0.572						0.572

Table 11.3.3 Max ENDC (Body SAR) _Int Ant

Head/Body	DC_2A_n77A		DC_2A_n78A		DC_4A_n78A		DC_5A_n77A		DC_5A_n78A		Max
	2A	n77A	2A	n78A	4A	n78A	5A	n77A	5A	n78A	
Top Side	0.111	0.483	0.111	0.483	0.163	0.483	0.164	0.483	0.164	0.483	N/A
	0.594		0.594		0.646		0.647		0.647		0.647

Head/Body	DC_7A_n77A		DC_7A_n78A		DC_12A_n77A		DC_12A_n78A		DC_13A_n77A		Max
	7A	n77A	7A	n78A	12A	n77A	12A	n78A	13A	n77A	
Top Side	0.066	0.483	0.066	0.483	0.197	0.483	0.197	0.483	0.280	0.483	N/A
	0.549		0.549		0.680		0.680		0.763		0.763

Head/Body	DC_13A_n78A		DC_14A_n77A		DC_14A_n78A		DC_25A_n77A		DC_25A_n78A		Max
	13A	n78A	14A	n77A	14A	n78A	25A	n77A	25A	n78A	
Top Side	0.280	0.483	0.248	0.483	0.248	0.483	0.121	0.483	0.121	0.483	N/A
	0.763		0.731		0.731		0.604		0.604		0.763

Head/Body	DC_26A_n78A		DC_41A_n77A		DC_41A_n78A		DC_66A_n77A		DC_66A_n78A		Max
	26A	n78A	41A	n77A	41A	n78A	66A	n77A	66A	n78A	
Top Side	0.229	0.483	0.043	0.483	0.043	0.483	0.163	0.483	0.163	0.483	N/A
	0.712		0.526		0.526		0.646		0.646		0.712

Head/Body	DC_71A_n77A		DC_71A_n78A								Max
	71A	n77A	71A	n78A							
Top Side	0.203	0.483	0.203	0.483							N/A
	0.686		0.686								0.686

Table 11.3.4 Max 4G/5G (Head SAR) Ext Ant

Body	LTE B71	LTE B12	LTE B13	LTE B14	LTE B26	LTE B5	LTE B66	LTE B25	LTE B2	LTE B7	LTE B41	Max
Bottom Side	0.040	0.037	0.045	0.133	0.022	0.024	0.028	0.016	0.029	0.012	0.019	0.133

Body	n71	n12	n13	n14	n26	n66	n25	n7	n41	n77 DoD	n77	Max
Bottom Side	0.019	0.017	0.011	0.005	0.012	0.011	0.017	0.018	0.015	0.022	0.026	0.026

Table 11.3.5 Max NR SA ULCA (Head SAR) Ext Ant

Body	SA UL CA_n2A-n77A		SA UL CA_n2A-n78A		SA UL CA_n5A-n77A		SA UL CA_n5A-n78A		SA UL CA_n7A-n77A		Max
	n2A	n77A	n2A	n78A	n5A	n77A	n5A	n78A	n7A	n77A	
Bottom Side	0.017	0.026	0.017	0.026	0.012	0.026	0.012	0.026	0.018	0.026	N/A
	0.043		0.043		0.038		0.038		0.044		0.044

Body	SA UL CA_n7A-n78A		SA UL CA_n12A-n77A		SA UL CA_n12A-n78A		SA UL CA_n13A-n77A		SA UL CA_n14A-n77A		Max
	n7A	n78A	n12A	n77A	n12A	n78A	n13A	n77A	n14A	n77A	
Bottom Side	0.018	0.026	0.017	0.026	0.017	0.026	0.011	0.026	0.005	0.026	N/A
	0.044		0.043		0.043		0.037		0.031		0.044

Body	SA UL CA_n25A-n77A		SA UL CA_n25A-n78A		SA UL CA_n26A-n77A		SA UL CA_n26A-n78A		SA UL CA_n66A-n77A		Max
	n25A	n77A	n25A	n78A	n26A	n77A	n26A	n78A	n66A	n77A	
Bottom Side	0.017	0.026	0.017	0.026	0.012	0.026	0.012	0.026	0.011	0.026	N/A
	0.043		0.043		0.038		0.038		0.037		0.043

Body	SA UL CA_n66A-n78A		SA UL CA_n71A-n77A		SA UL CA_n71A-n78A						Max
	n66A	n78A	n71A	n77A	n71A	n78A					
Bottom Side	0.011	0.026	0.019	0.026	0.019	0.026					N/A
	0.037		0.045		0.045						0.045

Table 11.3.6 Max ENDC (Head SAR) Ext Ant

Body	DC_2A_n77A		DC_2A_n78A		DC_4A_n78A		DC_5A_n77A		DC_5A_n78A		Max
	2A	n77A	2A	n78A	4A	n78A	5A	n77A	5A	n78A	
Bottom Side	0.029	0.026	0.029	0.026	0.028	0.026	0.024	0.026	0.024	0.026	N/A
	0.055		0.055		0.054		0.050		0.050		0.055

Body	DC_7A_n77A		DC_7A_n78A		DC_12A_n77A		DC_12A_n78A		DC_13A_n77A		Max
	7A	n77A	7A	n78A	12A	n77A	12A	n78A	13A	n77A	
Bottom Side	0.012	0.026	0.012	0.026	0.037	0.026	0.037	0.026	0.045	0.026	N/A
	0.038		0.038		0.063		0.063		0.071		0.071

Body	DC_13A_n78A		DC_14A_n77A		DC_14A_n78A		DC_25A_n77A		DC_25A_n78A		Max
	13A	n78A	14A	n77A	14A	n78A	25A	n77A	25A	n78A	
Bottom Side	0.045	0.026	0.133	0.026	0.133	0.026	0.016	0.026	0.016	0.026	N/A
	0.071		0.159		0.159		0.042		0.042		0.159

Body	DC_26A_n78A		DC_41A_n77A		DC_41A_n78A		DC_66A_n77A		DC_66A_n78A		Max
	26A	n78A	41A	n77A	41A	n78A	66A	n77A	66A	n78A	
Bottom Side	0.022	0.026	0.019	0.026	0.019	0.026	0.028	0.026	0.028	0.026	N/A
	0.048		0.045		0.045		0.054		0.054		0.054

Body	DC_71A_n77A		DC_71A_n78A								Max
	71A	n77A	71A	n78A							
Bottom Side	0.04	0.026	0.04	0.026							N/A
	0.066		0.066								0.066

11.4 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06.

12. SAR MEASUREMENT VARIABILITY

12.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2. A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~10% from the 1-g SAR limit).
3. A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .
4. Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5. The same procedures should be adapted for measurements according to extremity exposure limits by applying a factor of 2.5 for extremity exposure to the corresponding SAR thresholds.

12.2 Measurement Uncertainty

The measured SAR was < 1.5 W/kg for 1g and < 3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04 was not required.

13. EQUIPMENT LIST

Table 13.1 Test Equipment Calibration

	Type	Manufacturer	Model	Cal.Date	Next.Cal.Date	S/N
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX60L	N/A	N/A	F14/5VR2A1/A/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F14/5VR2A1/C/01
☒	Joystick	SPEAG	P21142605A	N/A	N/A	D21142605A
☒	Intel Xeon W-2 253 3.70 GHz Windows 11 Professional	N/A	N/A	N/A	N/A	N/A
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1783
☒	2 mm Oval Phantom ELI6	SPEAG	QDOVA003AA	N/A	N/A	2008
☒	Data Acquisition Electronics	SPEAG	DAE3V1	2025-10-20	2026-10-20	479
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2025-09-15	2026-09-15	1453
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2025-11-21	2026-11-21	7898
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2025-04-23	2026-04-23	3866
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2026-04-22	2027-04-22	3916
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2026-03-31	2027-03-31	3916
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX60L	N/A	N/A	F14/5VR2A1/A/01
☒	750MHz SAR Dipole	SPEAG	D750V3	2026-03-16	2027-03-16	1049
☒	835MHz SAR Dipole	SPEAG	D835V2	2026-02-17	2027-02-17	4d159
☒	1 800MHz SAR Dipole	SPEAG	D1800V2	2025-11-12	2026-11-12	2d202
☒	1 900MHz SAR Dipole	SPEAG	D1900V2	2026-02-17	2027-02-17	5d176
☒	2 600MHz SAR Dipole	SPEAG	D2600V2	2025-08-14	2026-08-14	1103
☒	3 500MHz SAR Dipole	SPEAG	D3500V2	2025-09-15	2026-09-15	1018
☒	3 700MHz SAR Dipole	SPEAG	D3700V2	2025-09-15	2026-09-15	1023
☒	3 900MHz SAR Dipole	SPEAG	D3900V2	2026-01-21	2027-01-21	1037
☒	Signal Generator	Agilent	E4438C	2025-05-28	2026-05-28	US41461520
☒	Broadband Amplifier	SUNGSAN	SA1077	2025-11-20	2026-11-20	SA1077-001
☒	Amplifier	EMPOWER	BBS3Q7ELU	2025-05-30	2026-05-30	1020
☒	High Power RF Amplifier	EMPOWER	BBS3Q8CCJ	2025-05-30	2026-05-30	1005
☒	Power Meter	HP	EPN-442A	2025-11-18	2026-11-18	GB37170267
☒	Power Meter	Anritsu	ML2488B	2025-11-25	2026-11-25	0846003
☒	Power Sensor	Anritsu	MA2472D	2025-11-18	2026-11-18	0845419
☒	Power Sensor	HP	8481A	2025-11-18	2026-11-18	2702A65976
☒	Power Sensor	HP	8481A	2025-11-18	2026-11-18	2702A61707
☒	Dual Directional Coupler	Agilent	778D-012	2025-11-20	2026-11-20	50228
☒	Directional Coupler	HP	772D	2025-05-30	2026-05-30	2889A01064
☒	Low Pass Filter 1 GHz	Wainwright Instruments	WLK6-1000-1400-9000-60SS	2025-06-24	2026-06-24	165
☒	Low Pass Filter 1.5 GHz	MICROLAB	LA-15N	2025-05-28	2026-05-28	2
☒	Low Pass Filter 3.0 GHz	MICROLAB	LA-30N	2025-05-28	2026-05-28	2
☒	Low Pass Filter 6.0 GHz	MICROLAB	LA-60N	2025-11-20	2026-11-20	03942
☒	Attenuators(10 dB)	WEINSCHTEL	23-10-34	2025-11-20	2026-11-20	BP4387
☒	Attenuators	H/P	8494A	2025-05-28	2026-05-28	3308A33341
☒	Attenuators	Saluki	3.5TS2-3dB-26.5G	2025-05-29	2026-05-29	21090703
☒	Dielectric Probe kit	SPEAG	DAKS-12	2025-09-16	2026-09-16	1040
☒	Dielectric Probe kit	SPEAG	R60	2025-09-22	2026-09-22	22323001
☒	Dielectric Probe kit	SPEAG	DAK-3.5	2025-07-07	2026-07-07	1046
☒	Dielectric Probe kit	SPEAG	R140	2025-07-17	2026-07-17	0101213
☒	Radio Communication Analyzer	KEYSIGHT	E7515B	2025-11-21	2026-11-21	MY58300723
☒	Radio Communication Analyzer	Anritsu	MT8000A	2025-11-17	2026-11-17	6262070944
☒	Radio Communication Analyzer	Anritsu	MT8821C	2025-11-17	2026-11-17	6262044748

NOTE(S):

- The E-field probe was calibrated by SPEAG, by temperature measurement procedure. Dipole Verification measurement is performed by Dt&C before each test. The brain and muscle simulating material are calibrated by Dt&C using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain and muscle-equivalent material. Each equipment item was used solely within its respective calibration period.
- CBT(Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

14. MEASUREMENT UNCERTAINTIES

13 ~ 600 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U_i 1 g	Ci x U_i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	13.3	Normal	2	1	1	6.65	6.65	6.65	6.65	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	0.6	Rectangular	√3	1	1	0.3	0.3	0.3	0.3	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	0.8	Normal	1	1	1	0.8	0.8	0.8	0.8	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	3.9	Normal	1	0.04	0.04	3.9	3.9	0.2	0.2	∞
Data Processing	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.2	Normal	1	0.78	0.71	3.20	3.20	2.50	2.27	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.3	Normal	1	0.23	0.26	3.30	3.30	0.76	0.86	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	1.15	1.15	0.90	0.82	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	1.15	1.15	0.27	0.30	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0	0	8.1	8.1	0.0	0.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.3	Normal	1	1	1	2.3	2.3	2.3	2.3	10
Device Holder	2.1	Normal	1	1	1	2.1	2.1	2.1	2.1	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						11	11			622
Expanded Uncertainty (k=2)						22	22			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

$$= 22\% \text{ (The confidence level is about 95 \% } k = 2 \text{)}$$

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

$$= 22\% \text{ (The confidence level is about 95 \% } k = 2 \text{)}$$

750 ~ 2 600 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	11.0	Normal	2	1	1	5.50	5.50	5.50	5.50	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	2.8	Rectangular	√3	1	1	1.6	1.6	1.6	1.6	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	0.8	Normal	1	1	1	0.8	0.8	0.8	0.8	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	3.9	Normal	1	0.14	0.14	3.9	3.9	0.5	0.5	∞
Data Processing	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.2	Normal	1	0.78	0.71	3.20	3.20	2.50	2.27	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.3	Normal	1	0.23	0.26	3.30	3.30	0.76	0.86	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	1.15	1.15	0.90	0.82	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	1.15	1.15	0.27	0.30	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0	0	8.1	8.1	0.0	0.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.3	Normal	1	1	1	2.3	2.3	2.3	2.3	10
Device Holder	2.2	Normal	1	1	1	2.2	2.2	2.2	2.2	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						11	11			516
Expanded Uncertainty (k=2)						22	22			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

= 22 % (The confidence level is about 95 % k = 2)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 11\%$$

= 22 % (The confidence level is about 95 % k = 2)

3 000 ~ 6 000 MHz

Error Description	Uncertainty value %	Probability Distribution	Divisor	(Ci) 1 g	(Ci) 10 g	Standard 1 g (%)	Standard 10 g (%)	Ci x U _i 1 g	Ci x U _i 10 g	vi 2 or Veff
Measurement System										
Probe calibration	13.1	Normal	2	1	1	6.55	6.55	6.55	6.55	∞
Probe Calibration Drift	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
Probe Linearity	4.7	Rectangular	√3	1	1	2.7	2.7	2.7	2.7	∞
Broadband Signal	2.6	Rectangular	√3	1	1	1.5	1.5	1.5	1.5	∞
Probe Isotropy	7.6	Rectangular	√3	1	1	4.4	4.4	4.4	4.4	∞
Data acquisition	1.2	Normal	1	1	1	1.2	1.2	1.2	1.2	∞
RF Ambient Conditions	1.8	Normal	1	1	1	1.8	1.8	1.8	1.8	∞
Probe Positioning	3.9	Normal	1	0.29	0.29	3.9	3.9	1.1	1.1	∞
Data Processing	2.3	Normal	1	1	1	2.3	2.3	2.3	2.3	∞
Phantom and Device										
Liquid conductivity (Target)	5.0	Rectangular	√3	0.64	0.43	2.89	2.89	1.85	1.24	∞
Liquid conductivity (Meas.)	3.2	Normal	1	0.78	0.71	3.20	3.20	2.50	2.27	10
Liquid permittivity (Target)	5.0	Rectangular	√3	0.60	0.49	2.89	2.89	1.73	1.41	∞
Liquid permittivity (Meas.)	3.1	Normal	1	0.23	0.26	3.10	3.10	0.71	0.81	10
Temp. unc. - Conductivity	2.0	Rectangular	√3	0.78	0.71	1.15	1.15	0.90	0.82	∞
Temp. unc. - Permittivity	2.0	Rectangular	√3	0.23	0.26	1.15	1.15	0.27	0.30	∞
Phantom Shell Permittivity	14.0	Rectangular	√3	0.25	0.25	8.1	8.1	2.0	2.0	∞
Distance DUT-TSL	2.0	Normal	1	2	2	2.0	2.0	4.0	4.0	∞
Device Positioning	2.3	Normal	1	1	1	2.3	2.3	2.3	2.3	10
Device Holder	2.4	Normal	1	1	1	2.4	2.4	2.4	2.4	10
DUT Modulation	2.4	Rectangular	√3	1	1	1.4	1.4	1.4	1.4	∞
Time-average SAR	1.7	Rectangular	√3	1	1	1.0	1.0	1.0	1.0	∞
DUT drift	2.5	Normal	1	1	1	2.5	2.5	2.5	2.5	∞
Validation Antenna	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Uncertainty in Accepted Power	0.0	Normal	1	1	1	0.0	0.0	0.0	0.0	∞
Correction to the SAR results										
Deviation to target	1.9	Normal	1	1	0.84	1.9	1.9	1.9	1.6	∞
SAR Scaling	0.0	Rectangular	√3	1	1	0.0	0.0	0.0	0.0	∞
Combined Standard Uncertainty						12	12			779
Expanded Uncertainty (k=2)						24	24			

$$U(1\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 12\%$$

= 24 % (The confidence level is about 95 % k = 2)

$$U(10\text{ g}) = k \cdot u_c$$

$$= 2 \cdot 12\%$$

= 24 % (The confidence level is about 95 % k = 2)

15. CONCLUSION

Measurement Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under the worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are every complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role impossible biological effect are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease).

Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

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APPENDIX A. – Probe Calibration Data

**Calibration Laboratory of
Schmid & Partner
Engineering AG**

Zeughausstrasse 43, 8004 Zurich, Switzerland



S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
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Accreditation No.: SCS 0108

Client

Dt&C

Gyeonggi-do, Republic of Korea

Certificate No.

EX-7898_Nov25**CALIBRATION CERTIFICATE**

Object EX3DV4 - SN:7898

Calibration procedure(s) QA CAL-01.v10, QA CAL-12.v10, QA CAL-14.v7, QA CAL-23.v6,
QA CAL-25.v8, QA CAL-48.v2
Calibration procedure for dosimetric E-field probes

Calibration date November 21, 2025

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature $(22 \pm 3)^\circ\text{C}$ and humidity $< 70\%$.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Calibration Date (Certificate No.)	Sched. Cal.
Power Sensor R&S NRP-33T	SN: 100967	29-Oct-25 (No. Part of L1407)	Oct-26
N-type mismatch combination	SN: L1119	26-Mar-25 (No. 217-04292)	Mar-26
OCP DAK-12	SN: 1016	16-Sept-25 (No. OCP-DAK12-1016_Sep25)	Sep-26
OCP DAK-3.5	SN: 1249	16-Sept-25 (No. OCP-DAK3.5-1249_Sep25)	Sep-26
Reference Probe EX3DV4	SN: 7349	10-Jan-25 (No. EX3-7349_Jan25)	Jan-26
DAE4	SN: 1301	30-Oct-25 (No. DAE4-1301_Oct25)	Oct-26

Secondary Standards	ID	Check Date (in house)	Sched. Check
ACAP 2020 Setup 1	SN: L1404	01-Oct-25 (No. IHCK_ACAP2020-1_Oct25)	Oct-26
OCP DAK-12	SN: 1029	27-Feb-25 (No. OCP-DAK12-1029_Feb25)	Feb-26
OCP DAK-3.5	SN: 1336	09-Dec-24 (No. OCP-DAK3.5-1336_Dec24)	Dec-25

Calibrated by	Name Krešimir Franjić	Function Laboratory Technician	Signature
Approved by	Name Sven Kühn	Function Technical Manager	

Issued: November 21, 2025

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: EX-7898_Nov25

Page 1 of 21

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Glossary

TSL	tissue simulating liquid
NORM _{x,y,z}	sensitivity in free space
ConvF	sensitivity in TSL / NORM _{x,y,z}
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., $\vartheta = 0$ is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

- IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
- KDB 865864, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- NORM_{x,y,z}**: Assessed for E-field polarization $\vartheta = 0$ ($f \leq 900$ MHz in TEM-cell; $f > 1800$ MHz: R22 waveguide). NORM_{x,y,z} are only intermediate values, i.e., the uncertainties of NORM_{x,y,z} does not affect the E²-field uncertainty inside TSL (see below ConvF).
- NORM(f)_{x,y,z}** = NORM_{x,y,z} * frequency_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z**: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal. DCP does not depend on frequency nor media.
- PAR**: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- A_{x,y,z}; B_{x,y,z}; C_{x,y,z}; D_{x,y,z}; VR_{x,y,z}**: A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters**: Assessed in flat phantom using E-field (or Temperature Transfer Standard for $f \leq 800$ MHz) and inside waveguide using analytical field distributions based on power measurements for $f > 800$ MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORM_{x,y,z} * ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy)**: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset**: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle**: The angle is assessed using the information gained by determining the NORM_x (no uncertainty required).

EX3DV4 - SN:7898

November 21, 2025

Parameters of Probe: EX3DV4 - SN:7898**Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k = 2)
Norm ($\mu\text{V}/(\text{V}/\text{m})^2$) ^A	0.63	0.62	0.62	$\pm 10.1\%$
DCP (mV) ^B	102.0	106.9	105.9	$\pm 4.7\%$

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dB $\sqrt{\mu\text{V}}$	C	D dB	VR mV	Max dev.	Max Unc ^E k = 2
0	Continuous Wave	X	0.00	0.00	1.00	0.00	141.8	$\pm 2.3\%$	$\pm 4.7\%$
		Y	0.00	0.00	1.00		146.2		
		Z	0.00	0.00	1.00		144.5		
10352	Pulse (D=10%, T=5 ms)	X	0.40	69.21	18.40	10.00	23.0	$\pm 1.9\%$	$\pm 9.6\%$
		Y	0.71	70.00	18.08		23.0		
		Z	0.50	67.96	17.57		23.0		
10353	Pulse (D=20%, T=5 ms)	X	0.38	72.22	18.45	6.99	47.0	$\pm 1.5\%$	$\pm 9.6\%$
		Y	0.67	73.01	18.12		46.0		
		Z	0.47	70.97	17.62		47.0		
10354	Pulse (D=40%, T=5 ms)	X	0.35	75.23	18.50	3.98	93.0	$\pm 1.3\%$	$\pm 9.6\%$
		Y	0.63	76.02	18.17		93.0		
		Z	0.43	73.98	17.68		93.0		
10355	Pulse (D=60%, T=5 ms)	X	0.34	76.99	18.53	2.22	140.0	$\pm 1.2\%$	$\pm 9.6\%$
		Y	0.61	77.78	18.20		139.0		
		Z	0.41	75.74	17.71		140.0		
10387	Random (BW=1 MHz, MOD=QPSK)	X	0.00	74.11	19.75	0.11	110.0	$\pm 1.6\%$	$\pm 9.6\%$
		Y	0.01	74.90	19.55		109.0		
		Z	0.02	84.34	18.82		110.0		
10388	Random (BW=10 MHz, MOD=QPSK)	X	1.74	73.99	17.03	0.00	116.0	$\pm 2.4\%$	$\pm 9.6\%$
		Y	1.79	74.78	17.45		116.0		
		Z	1.55	72.74	16.66		117.0		
10396	Random (BW=100 kHz, MOD=64QAM)	X	0.02	72.93	21.74	1.85	81.0	$\pm 5.4\%$	$\pm 9.6\%$
		Y	0.08	73.73	21.04		80.0		
		Z	0.02	71.69	20.47		81.0		
10399	Random (BW=40 MHz, MOD=64QAM)	X	3.88	72.93	16.88	0.00	108.0	$\pm 3.5\%$	$\pm 9.6\%$
		Y	3.98	73.73	17.35		108.0		
		Z	3.41	71.69	16.49		109.0		
10414	Random (BW=40 MHz, HIGH PAR)	X	4.80	70.67	16.88	0.00	80.0	$\pm 1.7\%$	$\pm 9.6\%$
		Y	4.77	71.46	17.35		79.0		
		Z	4.21	69.42	16.49		80.0		

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k=2$, which for a normal distribution corresponds to a coverage probability of approximately 95%.

^A The uncertainties of Norm X,Y,Z do not affect the E^2 -field uncertainty inside TSL (see Pages 5 and 6).

^B Linearization parameter uncertainty for maximum specified field strength.

^E Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4 - SN:7898

November 21, 2025

Parameters of Probe: EX3DV4 - SN:7898**Sensor Model Parameters**

	C1 fF	C2 fF	α V^{-1}	T1 $ms V^{-2}$	T2 $ms V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
x	11.8	87.85	35.44	2.00	0.00	4.90	0.00	0.00	1.01
y	10.8	78.30	33.73	3.45	0.00	4.90	0.41	0.00	1.00
z	11.1	80.67	33.97	2.34	0.00	4.90	0.35	0.00	1.00

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	-19.7°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	12 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3–4 mm for an *Area Scan* job.

EX3DV4 - SN:7898

November 21, 2025

Parameters of Probe: EX3DV4 - SN:7898**Calibration Parameter Determined in HSL**

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
750	41.9	0.89	9.79	9.15	8.90	0.36	1.27	±11.0%
835	41.5	0.90	9.49	8.86	8.62	0.36	1.27	±11.0%
900	41.5	0.97	9.35	8.74	8.50	0.36	1.27	±11.0%
1640	40.2	1.31	8.21	7.67	7.47	0.35	1.27	±11.0%
1750	40.1	1.37	8.12	7.59	7.39	0.35	1.27	±11.0%
1900	40.0	1.40	7.83	7.31	7.12	0.35	1.27	±11.0%
2450	39.2	1.80	7.23	6.76	6.57	0.34	1.27	±11.0%
2600	39.0	1.96	7.08	6.62	6.44	0.34	1.27	±11.0%
3300	38.2	2.71	6.82	6.37	6.20	0.34	1.27	±13.1%
3500	37.9	2.91	6.74	6.29	6.12	0.33	1.27	±13.1%
3700	37.7	3.12	6.68	6.25	6.08	0.33	1.27	±13.1%
5200	36.0	4.66	5.73	5.36	5.21	0.30	1.27	±13.1%
5300	35.9	4.76	5.58	5.22	5.06	0.29	1.27	±13.1%
5500	35.6	4.96	5.23	4.89	4.76	0.28	1.27	±13.1%
5600	35.5	5.07	5.27	4.92	4.79	0.27	1.27	±13.1%
5800	35.3	5.27	5.17	4.84	4.70	0.25	1.27	±13.1%

^C Frequency validity above 300 MHz of ±100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ±50 MHz. The uncertainty is the RMS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ±10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–9 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10% if SAR correction is applied.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz and below ±2% for frequencies between 3–6 GHz at any distance larger than half the probe tip diameter from the boundary.

^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

EX3DV4 - SN:7898

November 21, 2025

Parameters of Probe: EX3DV4 - SN:7898

Calibration Parameter Determined in HSL

f (MHz) ^C	Relative Permittivity ^F	Conductivity ^F (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha ^G	Depth ^G (mm)	Unc ^H (k = 2)
6500	34.5	6.07	5.61	5.24	5.10	0.20	1.27	±18.6%
7000	33.9	6.65	5.81	5.42	5.28	0.20	1.27	±18.6%

^C Frequency validity is -600/+700 MHz at 6.5GHz, ±700 MHz at or above 7 GHz, and ±150 MHz at 9.85 GHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.

^F The probes are calibrated using tissue simulating liquids (TSL) that deviate for ϵ and σ by less than ±10% from the target values (typically better than ±6%) and are valid for TSL with deviations of up to ±10%.

^G Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ±1% for frequencies below 3 GHz; below ±2% for frequencies between 3–6 GHz; and below ±4% for frequencies between 6–10 GHz at any distance larger than half the probe tip diameter from the boundary.

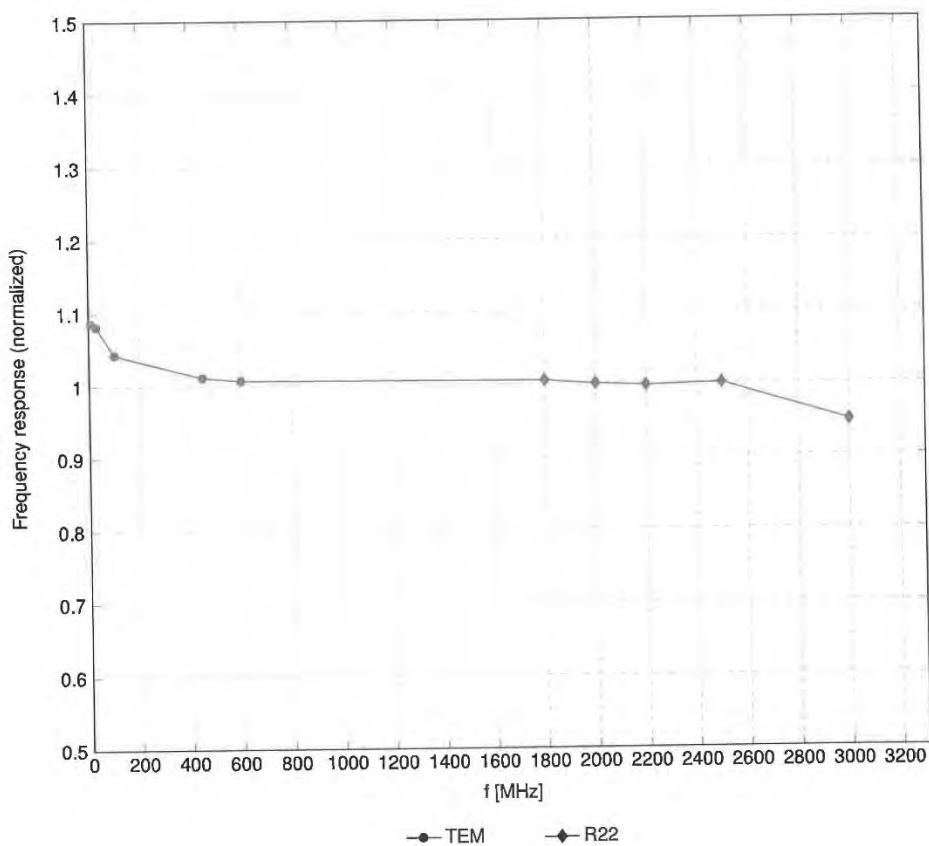
^H The stated uncertainty is the total calibration uncertainty (k = 2) of Norm-ConvF. This is equivalent to the uncertainty component with the symbol CF in Table 9 of IEC/IEEE 62209-1528:2020.

EX3DV4 - SN:7898

November 21, 2025

Frequency Response of E-Field

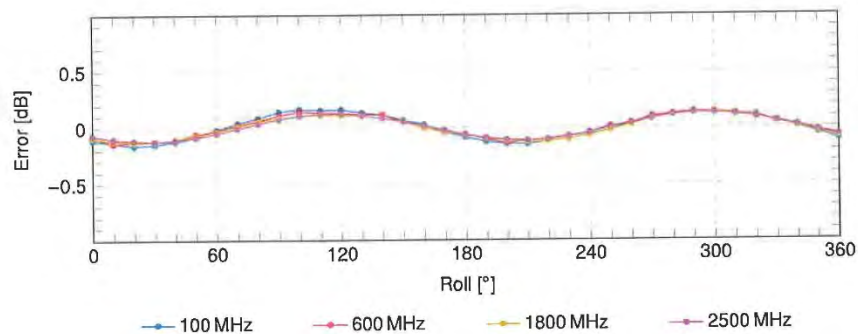
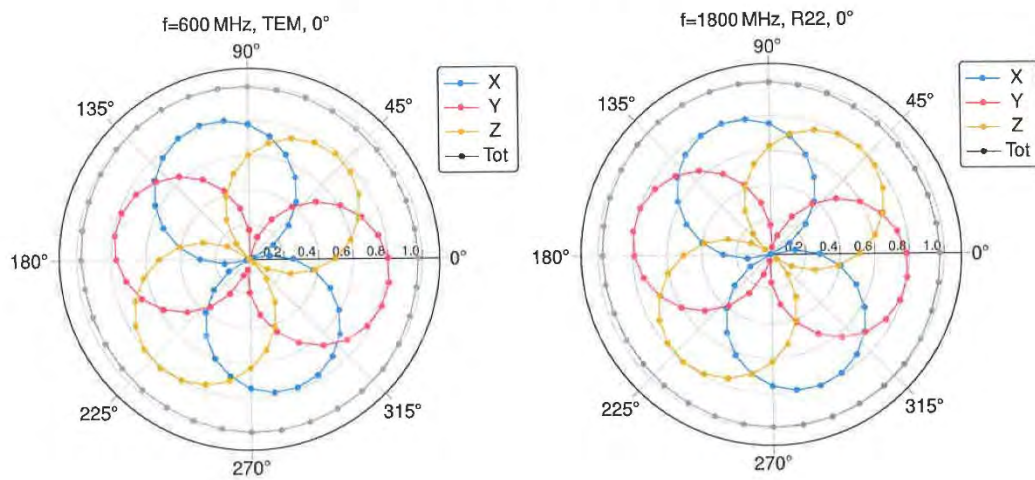
(TEM-Cell:ifi110 EXX, Waveguide:R22)



Uncertainty of Frequency Response of E-field: $\pm 6.3\%$ ($k=2$)

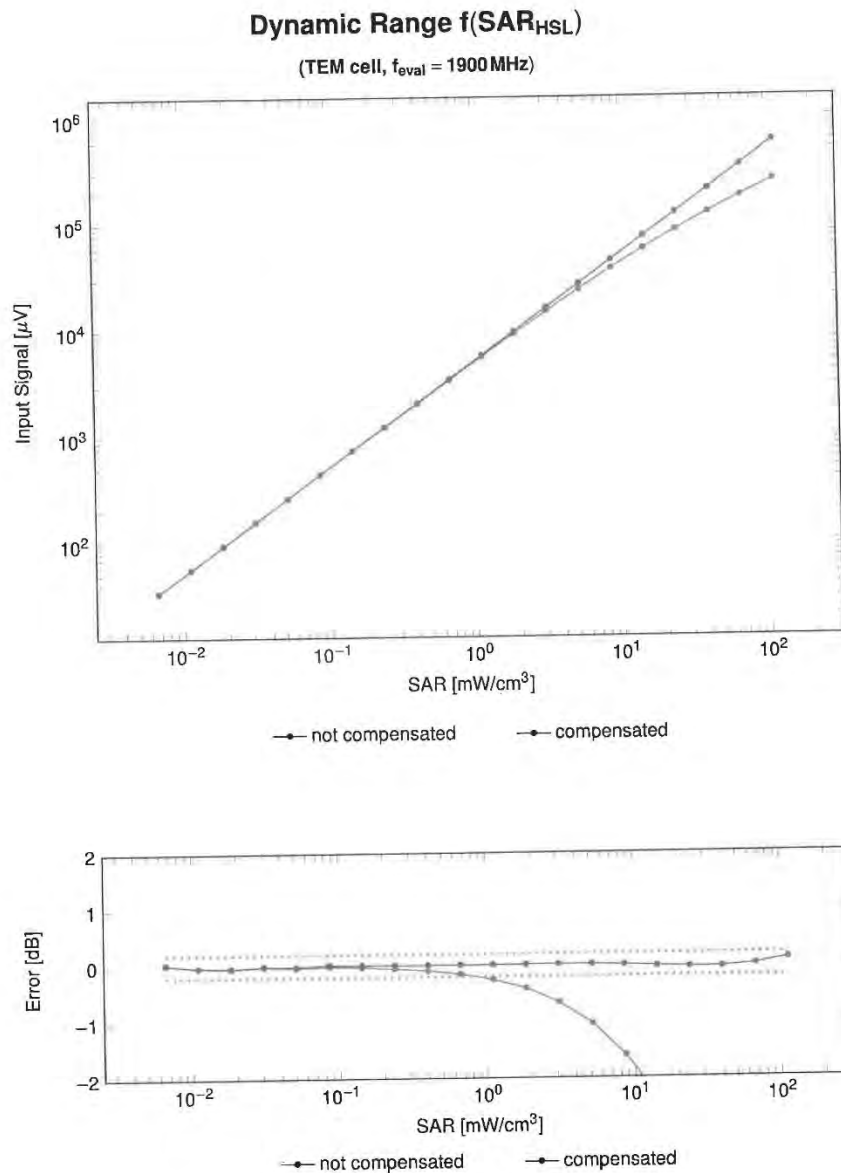
EX3DV4 - SN:7898

November 21, 2025

Receiving Pattern (ϕ), $\theta = 0^\circ$ Uncertainty of Axial Isotropy Assessment: $\pm 0.5\%$ ($k=2$)

EX3DV4 - SN:7898

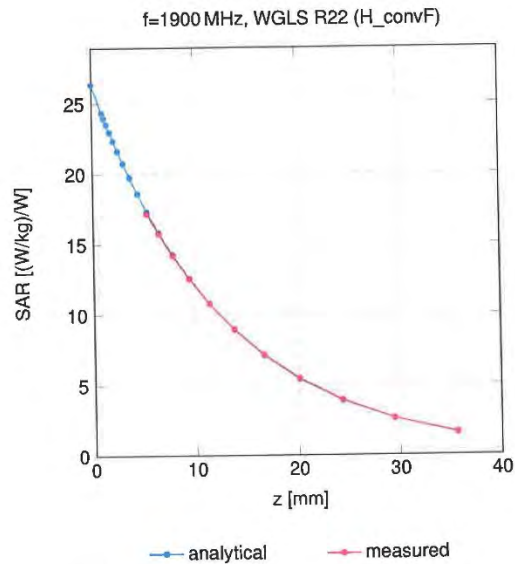
November 21, 2025

Uncertainty of Linearity Assessment: $\pm 0.6\%$ ($k=2$)

EX3DV4 - SN:7898

November 21, 2025

Conversion Factor Assessment



Deviation from Isotropy in Liquid

Error (ϕ, θ), f = 900 MHz