

Product Information

EUT	: EM PAD
Model Number	: iScribe wifi
Model Declaration	: N/A
Test Model	: iScribe wifi
Power Supply	: DC 3.7V by battery
Hardware version	: V1.0
Software version	: V1.0
Sample ID	: TZ2011013965-1#, TZ2011013965-2#,TZ2011013965-3#

Bluetooth

Bluetooth Version	: V4.0
Channel Number	: 40 Channels for BLE (DTS)
Modulation Technology	: GFSK for BLE (DTS)
Data Rates	: BLE (DTS): 1Mbps
Antenna Type And Gain	Internal Antenna /2 dBi(Max.)

WiFi

WLAN	: Supported IEEE 802.11a/b/g/n
WLAN FCC Operation Frequency	: IEEE 802.11b:2412-2462MHz IEEE 802.11g:2412-2462MHz IEEE 802.11n HT20:2412-2462MHz IEEE 802.11n HT40:2422-2452MHz
WLAN Channel Number	: 11 Channels for 2412-2462MHz(IEEE 802.11b/g/n HT20) 7 Channels for 2422-2452MHz(IEEE 802.11n HT40)
WLAN Modulation Technology	: IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Type And Gain	: Internal Antenna /Wlan2.4G: 2 dBi(Max.)

Note: Antenna position refer to EUT Photos.

RADIO FREQUENCY EXPOSURE

Limit

According to section 4.3.1 of KDB 447498 D01 General RF Exposure Guidance v06, SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Appendix A.

Appendix A

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	30	35	40	45	50	mm
150	232	271	310	349	387	SAR Test Exclusion Threshold (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

Conducted Power Results

Test Mode	Channel	Frequency (MHz)	Measured Peak Output Power (dBm)
GFSK(1Mbps)	00	2402	2.24
	19	2440	2.47
	39	2480	2.32

TestMode	Antenna	Channel	Result[dBm]
11B	Ant1	2412	7.36
		2437	7.17
		2462	7.26
11G	Ant1	2412	7.58
		2437	7.49
		2462	7.38
11N20SISO	Ant1	2412	7.26
		2437	7.48
		2462	7.33
11N40SISO	Ant1	2422	6.96
		2437	6.88
		2452	6.86

Manufacturing tolerance

GFSK (1Mbps Peak)			
Channel	Channel 0	Channel 19	Channel 39
Target (dBm)	2.0	2.0	2.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

IEEE 802.11b(Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	6.5	6.5	6.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11g(Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	6.6	6.6	6.6
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT20(Average)			
Channel	Channel 1	Channel 6	Channel 11
Target (dBm)	6.5	6.5	6.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0
IEEE 802.11n HT40(Average)			
Channel	Channel 3	Channel 6	Channel 9
Target (dBm)	6.5	6.5	6.5
Tolerance $\pm$ (dB)	1.0	1.0	1.0

Results

Test Mode	Max. Tune Up Power (dBm, Peak)	Max. Eirp including Tune Up (dBm, Peak)	Max. Eirp including Tune Up (mW, Peak)	Exemption Limit (mW)
BLE	3.0	5.0	3.16	10
IEEE 802.11b	7.5	9.5	8.91	10
IEEE 802.11g	7.6	9.6	9.12	10
IEEE 802.11n HT20	7.5	9.5	8.91	10
IEEE 802.11n HT40	7.5	9.5	8.91	10

the Maximum Eirp is used for Routine Evaluation Exemption according to section 4.3.1 of KDB 447498 D01.

So, the SAR evaluation is not required.