

# MPE Calculation

Model Name : **SP127**  
FCC ID : **S7A-SP127**

Device Category : **Portable device**  
Separation distance : **40.9 mm**

**KDB 447498 - 4.3.1 a)**

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:  
 $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Modulation	Frequency (MHz)	Min. Test separation distance	Measured Maximum Average power	Tune-up tolerance	Max. Power with tune-up tolerance		Standalone SAR Test exclusion thresholds for 100MHz to 6GHz at test separation distance $\leq 50$ mm	Limit	Result
		(mm)	(dBm)	(dB)	(dBm)	(mW)			
GFSK	2402	40.90	16.49	$\pm 0.50$	16.99	50.00	1.8948	3.00	PASS
	2441		16.80		17.30	53.70	2.0514	3.00	PASS
	2480		15.72		16.22	41.88	1.6125	3.00	PASS
$\pi/4$ DQPSK	2402	40.90	5.20	$\pm 0.50$	5.70	3.72	0.1408	3.00	PASS
	2441		5.35		5.85	3.85	0.1469	3.00	PASS
	2480		3.90		4.40	2.75	0.1060	3.00	PASS
8DPSK	2402	40.90	5.97	$\pm 0.50$	6.47	4.44	0.1681	3.00	PASS
	2441		6.16		6.66	4.63	0.1770	3.00	PASS
	2480		4.68		5.18	3.30	0.1269	3.00	PASS
BT LE	2402	40.90	1.88	$\pm 0.50$	2.38	1.73	0.0655	3.00	PASS
	2442		1.41		1.91	1.55	0.0593	3.00	PASS
	2480		0.12		0.62	1.15	0.0444	3.00	PASS
MESH	2410	40.90	15.77	$\pm 0.50$	16.27	42.36	1.6080	3.00	PASS
	2445		15.50		16.00	39.81	1.5220	3.00	PASS
	2475		15.30		15.80	38.02	1.4624	3.00	PASS