

MPE Calculation

Model Name : **Nautitalk Active**
FCC ID : **S7A-SP180**

Device Category : **Portable device**
Separation distance : **15.05 mm**

KDB 447498 - 4.3.1 a)

For 100 MHz to 6 GHz and test separation distances ≤ 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 ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ 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 ≤ 50 mm	Limit	Result
		(mm)	(dBm)	(dB)	(dBm)	(mW)			
GFSK	2402	15.05	6.30	± 1.00	7.30	5.37	0.5530	3.00	PASS
	2441		5.88		6.88	4.88	0.5061	3.00	PASS
	2480		5.38		6.38	4.35	0.4547	3.00	PASS
$\pi/4$ DQPSK	2402	15.05	4.05	± 1.00	5.05	3.20	0.3294	3.00	PASS
	2441		3.62		4.62	2.90	0.3008	3.00	PASS
	2480		3.15		4.15	2.60	0.2721	3.00	PASS
8DPSK	2402	15.05	4.05	± 1.00	5.05	3.20	0.3294	3.00	PASS
	2441		3.51		4.51	2.82	0.2933	3.00	PASS
	2480		3.22		4.22	2.64	0.2765	3.00	PASS
BT LE	2402	15.05	2.36	± 1.00	3.36	2.17	0.2232	3.00	PASS
	2442		1.86		2.86	1.93	0.2006	3.00	PASS
	2480		1.26		2.26	1.68	0.1761	3.00	PASS
MESH	2410	15.05	11.52	± 1.00	12.52	17.84	1.8407	3.00	PASS
	2445		10.72		11.72	14.85	1.5424	3.00	PASS
	2475		9.86		10.86	12.18	1.2737	3.00	PASS