No SAR Justification
(FCC ID: OELGM505YAA)

Maximum measurement counts a day

In case of serious patient they need to take 6 blood glucose measurements a day.

(Each test is typically 2 hours apart. However, the most of users may use it only 2 to 3 times a week)

Actual Tx-on time for transmission

The actual Tx-on time for transmission is 1.3 sec (0.6sec for network setup and 0.7sec to send data to server). As analyzed above, the RF circuit is in passive network receiving mode for most of the time and uses only 1.3 sec maximum total for sending out the RF signal during each test.

The meter is design to try 5 times maximum for GPRS network connection. Since each GPRS network setup will take 10 to 13 sec typically depends on time and location. The loop waiting time for each try is default to 30 sec. If connection to GPRS network is not successful after 5 tries, then the meter will set network not available flag and stop trying. In this case the test data will be saved to built-in memory and user can re-try upload at later time.

As explained above, the old test data are saved in memory and user can upload them one by one manually when network is available later if necessary.

In short, the Tx-on time for the meter is typically

1.3 sec per 2 hours for serious patient

1.3 sec per 48 hours for typical user

Duty factor

Worst case

= 13 seconds plus 1.3 out of 2 x 60 x 60 seconds

=14.3 / 7200

=0.00198

Source-base time average conducted power table

Mode	Frequency (MHz)	Conducted power (dBm)	Conducted power (mW)	Source-based time-averaged conducted output power (mW)	SAR threshold (mW)
GPRS 850 (Time slot 1)	824.2	32.31	1702.16	3.37	72.80
	836.6	31.66	1465.55	2.90	71.72
	848.8	31.59	1442.12	2.86	70.69
GPRS 850 (Time slot 2)	824.2	32.21	1663.41	3.29	72.80
	836.6	31.59	1442.12	2.86	71.72
	848.8	31.57	1435.49	2.84	70.69
GRPS1900 (Time slot 1)	1850.2	29.80	954.99	1.89	32.43
	1880.0	29.77	948.42	1.88	31.91
	1909.8	29.59	909.91	1.80	31.42
GRPS1900 (Time slot 2)	1850.2	29.76	946.24	1.87	32.43
	1880.0	29.72	937.56	1.86	31.91
	1909.8	29.58	907.82	1.80	31.42

Source-base time average EIRP table

Mode	Frequency (MHz)	Conducted power (dBm)	EIRP (dBm)	EIRP (mW)	Source-based time-averaged conducted output power (mW)	SAR threshold (mW)
GPRS 850 (Time slot 1)	824.2	32.31	33.56	2269.86	4.49	72.80
	836.6	31.66	32.91	1954.34	3.87	71.72
	848.8	31.59	32.84	1923.09	3.81	70.69
GPRS 850 (Time slot 2)	824.2	32.21	33.46	2218.20	4.39	70.80
	836.6	31.59	32.84	1923.09	3.81	71.72
	848.8	31.57	32.82	1914.26	3.79	70.69
GRPS1900 (Time slot 1)	1850.2	29.80	33.34	2157.74	4.27	32.43
	1880.0	29.77	33.31	2142.89	4.24	31.91
	1909.8	29.59	33.13	2055.89	4.07	31.42
GRPS1900 (Time slot 2)	1850.2	29.76	33.30	2137.96	4.23	32.43
	1880.0	29.72	33.26	2118.36	4.19	31.91
	1909.8	29.58	33.12	2051.16	4.06	31.42

Note: Antenna gain of 850 MHz band is 1.25dBi and 1900MHz band is 3.54dBi

Conclusion

Since Source-base time average power is below SAR exempt power level, the SAR evaluation is not required.