

The GSM2374 (MT 3000) supports a maximum of 1 transmit timeslot (GPRS Multi-Slot class 2) in the GPRS mode of operation, this Multi-Slot class is configured in the factory during manufacturing and it is not possible for a user or installer to configure the GSM2374 to use more than 1 transmit time slot.

Therefore a source based time averaging calculation is used to reduce calculated the average transmit power. Since the number of GSM/GPRS timeslots available in a single burst is 8 and only 1 of these are used the average power would be 1/8 of the measured ERP/EIRP.

In addition the GSM2374 is controlled by SW to only support the user to set a maximum of one location or event report every 2 seconds. Each report sent over the wireless network takes under 200ms.

Source based time averaged duty factor = $0.2/2 = 0.1 = 10\%$

GPRS Class 2 operation duty factor = $1/8 = 0.125 = 12.5\%$

Maximum duty factor = $0.1 * 0.125 = 1.25\%$ maximum duty factor

850MHz power = 2W; with duty factor applied = $2 * 0.0125 = 25\text{mW}$

1900MHz power = 1W; with duty factor applied = $1 * 0.0125 = 12.5\text{mW}$

Limits for SAR applicability = $60/f$

@850 MHz = $60/0.85 = 70.6\text{ mW}$

@1900 MHz = $60/1.9 = 31.6\text{ mW}$

In conclusion, since the output power with duty factor applied is less than the limit in both bands SAR testing is not applicable.