

15 May 2019

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Subject: LTE CAT M1 External Modem RF Exposure Report Cover Letter

Refer to the block diagram (Figure 1) of the LTE CAT M1 External Modem below:

LTE External Modem

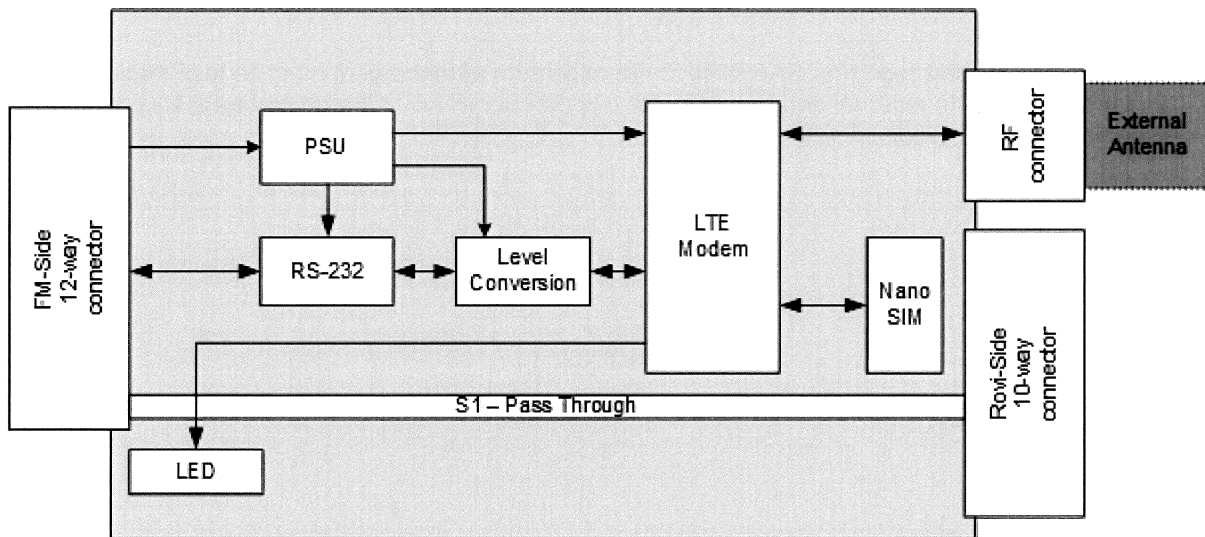


Figure 1: Functional Block Diagram

The circuit design comprises the following main elements:

- LTE modem
- SIM card single, Nano
- 1 x LED
- PSU
- Level conversion/shift
- External LTE Antenna

The only component relevant to the RF Exposure of this product is the LTE modem (SARA-R410). The RF Exposure report from the modem supplier (u-Blox) is therefore presented with their permission (refer to "MixT_MiX 41MC-4G Clearance Letter.pdf") as representative for the LTE Cat M1 External Modem.

Please note that although the report only references the SARA-R410M-02B, both the SARA-R410M-02B and the SARA-R410M-52B modules have the same FCC ID as shown below and in the SARA-R410M data sheet. "-02B" and "-52B" is relevant to the firmware version of the modem.

SARA-R4 / SARA-N4

Certifications summary



	SARA-R404M-00B	SARA-R410M-01B	SARA-R410M-02B	SARA-R410M-52B	SARA-R412M-02B	SARA-N410-02B
FCC US	•	•	•	•	•	•
FCC ID	XPY2AGQN1NNN	XPY2AGQN4NNN	XPY2AGQN4NNN	XPY2AGQN4NNN	XPYUBX18ZO01	XPY2AGQN4NNN
ISED Canada		•	•	•	•	•
ISED ID		8595A-2AGQN4NNN	8595A-2AGQN4NNN	8595A-2AGQN4NNN	8595A-UBX18ZO01	8595A-2AGQN4NNN
CE Europe			•		•	
RCM Australia			•			
NCC Taiwan			•			•
IFT Mexico		•				
PTCRB		•	•	•	•	•
GCF			•			
AT&T		•	•	•	•	
Verizon	•		•			
T-Mobile				•		•
US Cellular			•			
Bell		•				
Telus		•	•			
Telstra			•			

According to the u-Blox test report for SARA-R410 the maximum antenna gain must be less than 3.66 dBi for band 12 (worst case). The external antenna used for this product (FIX6927M-2MW) has a 4G gain of 2.44 dBi. It is well within the specification of 3.66 dBi.

Yours faithfully,

Theunis Christoffel Bothma

Certification Manager: