

Device “Lab Bench Reader/Writer” is used on a lab bench or table. During its normal use the operator can get close to the device at times. Therefore it will be classified as portable for conservative RF exposure evaluation purposes.

“Lab Bench Reader/Writer” houses a BT module with **FCC ID:PI403B** that has a portable modular approval.

According to KDB 447498 v03r03 Item 3(b)(ii)(1):

Antennas are considered to be <5cm from the user and the closest separation distance between the simultaneous transmitting antennas (RFID antenna and BT module antenna) is > 5cm as it can be verified in the photo attached to this document.

None of the transmitters in this device require stand-alone SAR evaluation

Stand-alone SAR is not required for BT module due to its low power (<60/f(GHz))

Conducted output power = 2.31dBm

Maximum antenna gain = 2dBi

EIRP = 2.7mW

Low threshold limit for BT = $60/f(\text{GHz}) = 60/2.48 = 24.2\text{mW}$, therefore stand-alone SAR is not required

For RFID radio

EIRP = 0.0000753mW (based on maximum fundamental field strength conversion)

Low threshold limit for RFID = $60/f(\text{GHz}) = 60/0.01356 = 4424.78\text{mW}$, therefore stand-alone SAR is not required

Based on the above; SAR is not required for simultaneous operation of the RFID radio and the BT module housed inside the “Lab Bench Reader/Writer”.

In conclusion, “Lab Bench Reader/Writer” complies with FCC and IC RF exposure limits for general population as a portable device.

LAB BENCH

Antennas

