

ANNEX D - Spurious Emissions and Band Edges

[Naming Convention]

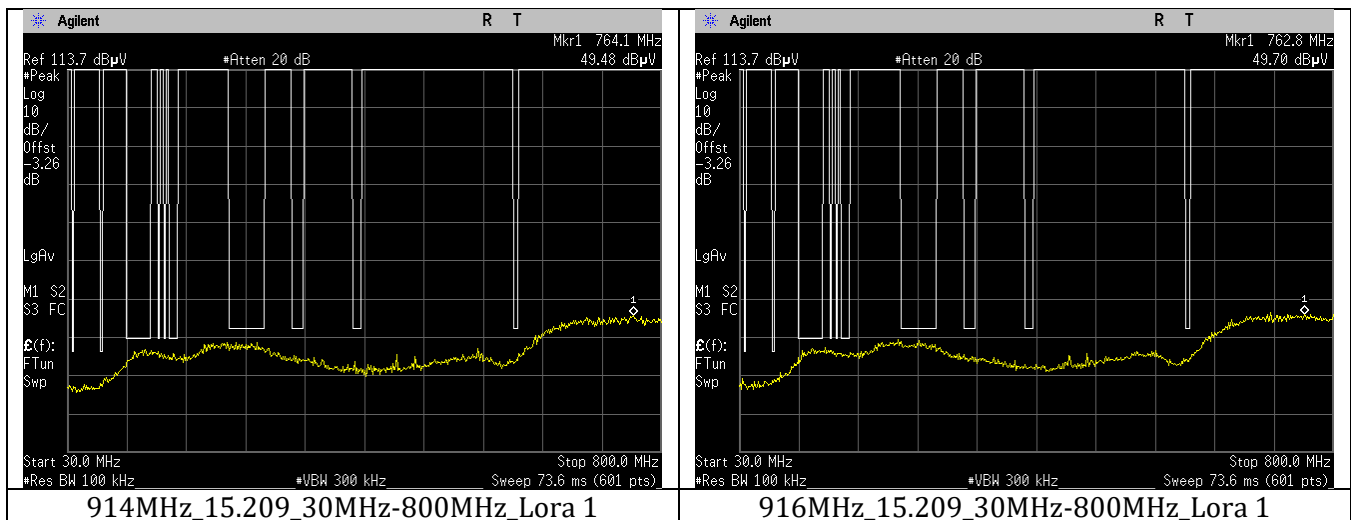
Frequency (MHz)_Measurement_(15.209, 30dBc)_Frequency Range (MHz, GHz, Lower Band Edge, Upper Band Edge)_Radio (Lora 1, Lora 2)

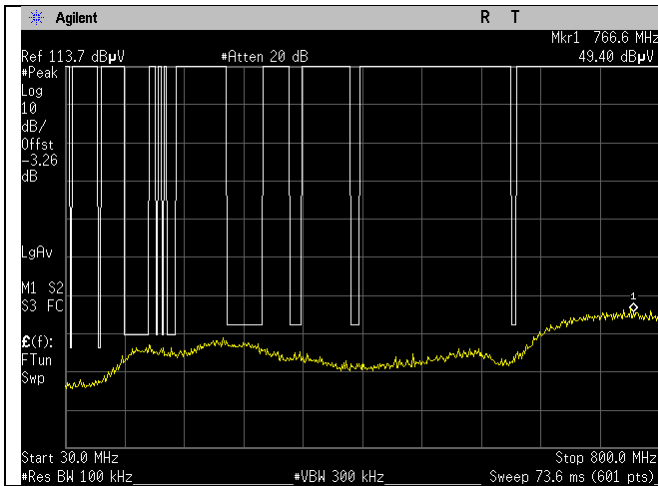
Note for 15.209 measurements: below measurements are in units of dBuV/m at 3meters. These measurements are performed conducted in lieu of radiated as permitted by ANSI C63.10-2013. The following formula was used in making such conversions:

Above 1GHz: $E[dB\mu V/m] = EIRP[dBm] - 20 \log(d[m]) + 104.77$, where E is field strength and d is distance at which the field strength limit is specified in the applicable requirements. $E[dB\mu V/m] = EIRP[dBm] + 95.2$, for $d = 3\text{ m}$. Straight conversion between $E[dBuV/m]$ and $EIRP[dBm] = 107$. Thus offset for dBuV/m at 3meters is $95.2-107+\text{antenna gain}$.

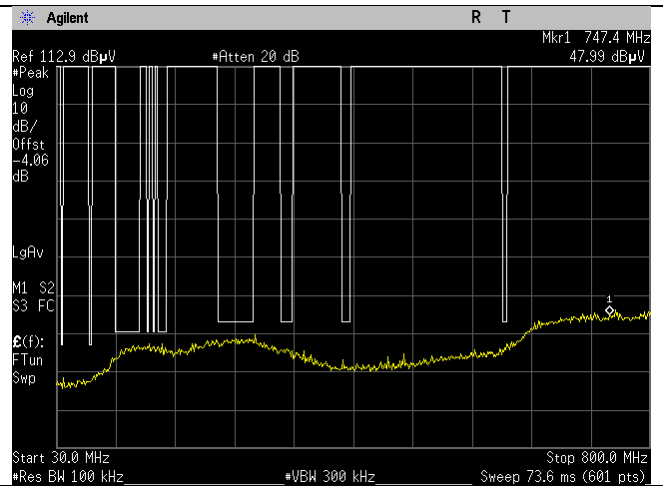
Below 1GHz: above is true in addition to adding ground plane contribution of 4.7dB. thus offset for dBuV/m at 3meters is $95.2-107+4.7+\text{antenna gain}$.

Note: full 15.209 evaluations were performed with appropriate transmit antennas in chamber for testing above 1GHz. For testing below 1GHz, testing was performed conducted in lieu of radiated per ANSIC63.10-2013 with applying worst case-antenna gain options. Testing below 1GHz was performed into a load in chamber in order to evaluate the cabinet emissions.

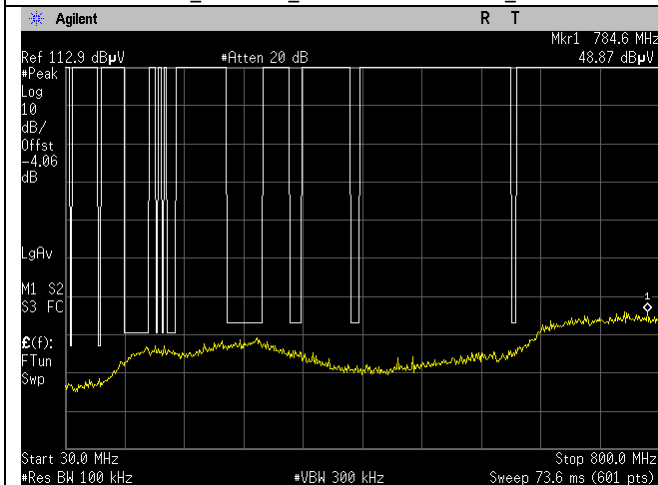




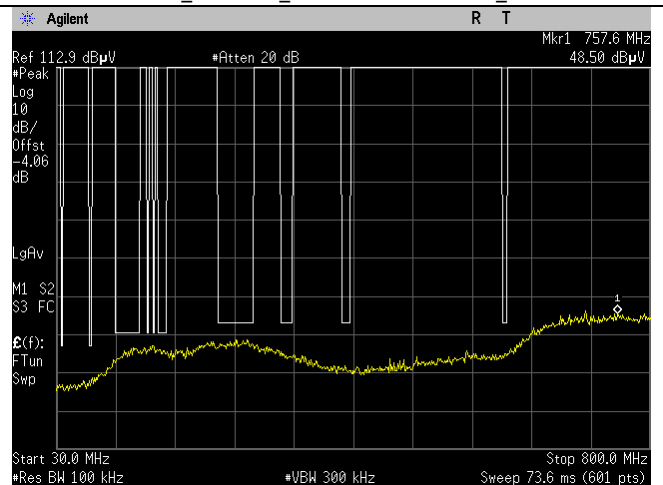
918MHz_15.209_30MHz-800MHz_Lora 1



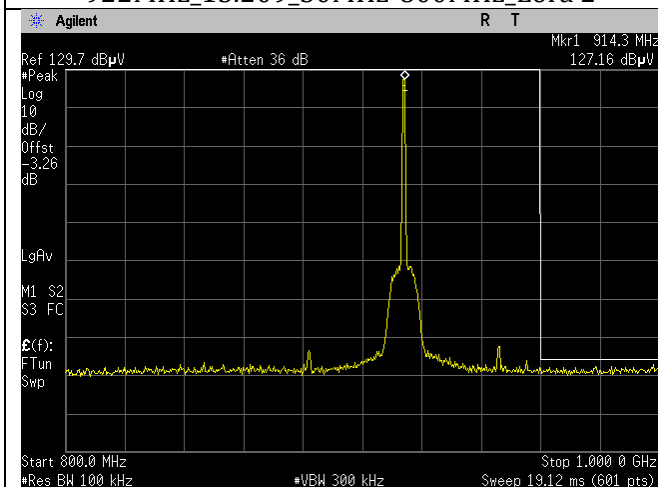
920MHz_15.209_30MHz-800MHz_Lora 2



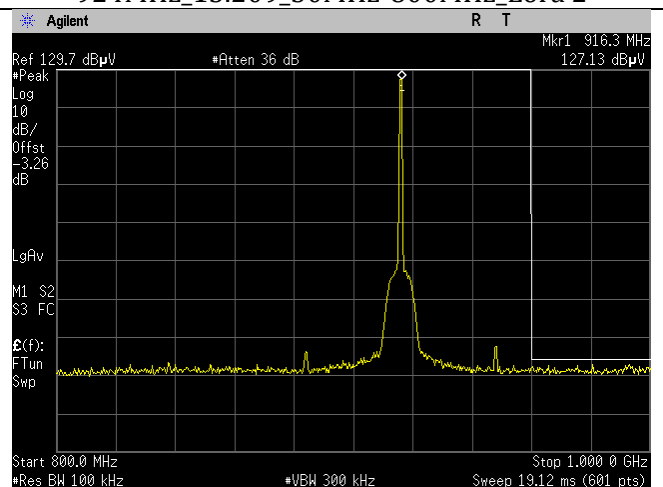
922MHz_15.209_30MHz-800MHz_Lora 2



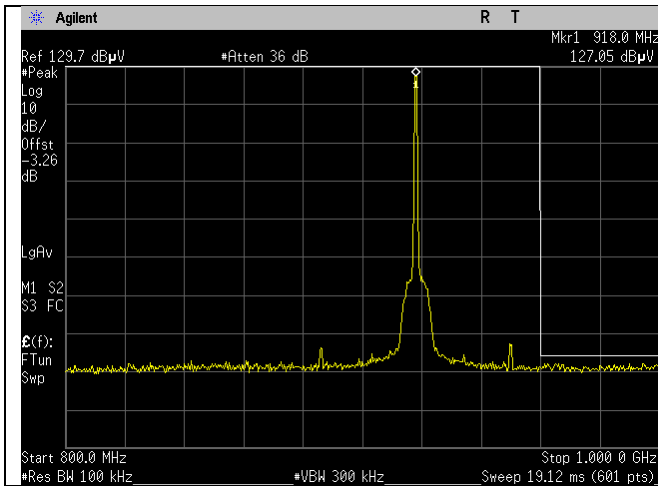
924MHz_15.209_30MHz-800MHz_Lora 2



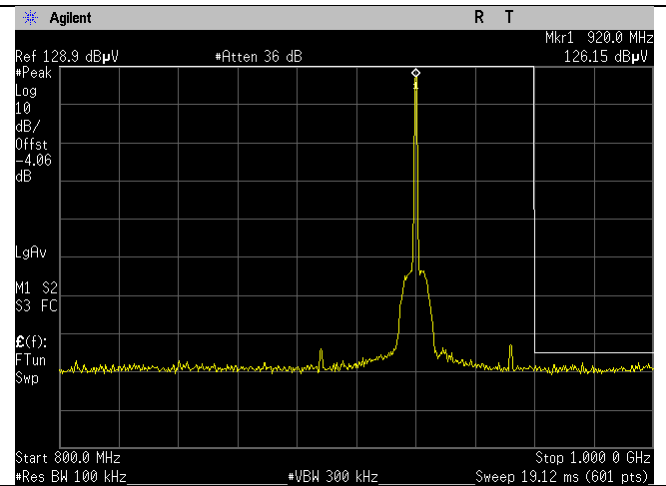
914MHz_15.209_800MHz-1GHz_Lora 1



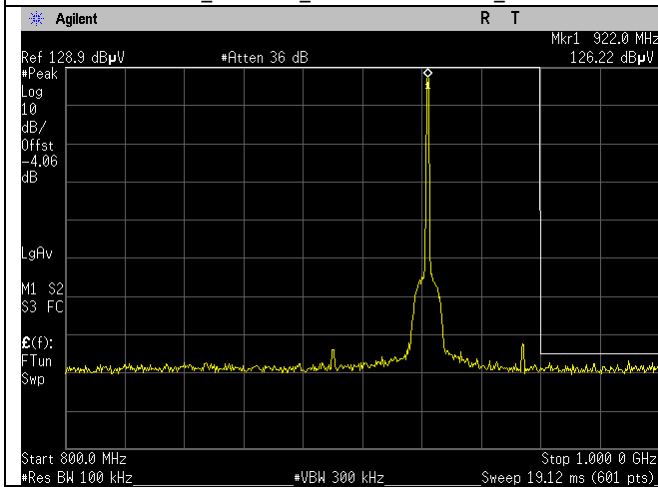
916MHz_15.209_800MHz-1GHz_Lora 1



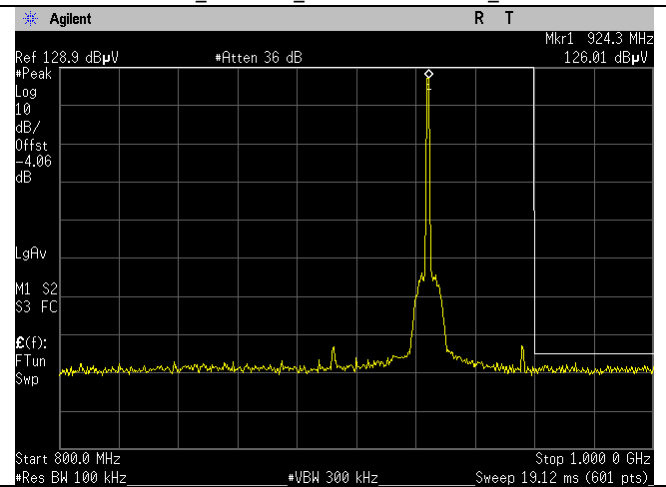
918MHz_15.209_800MHz-1GHz_Lora 1



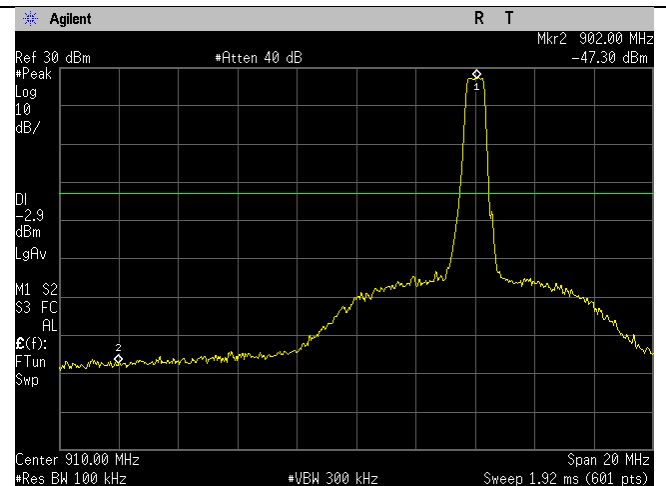
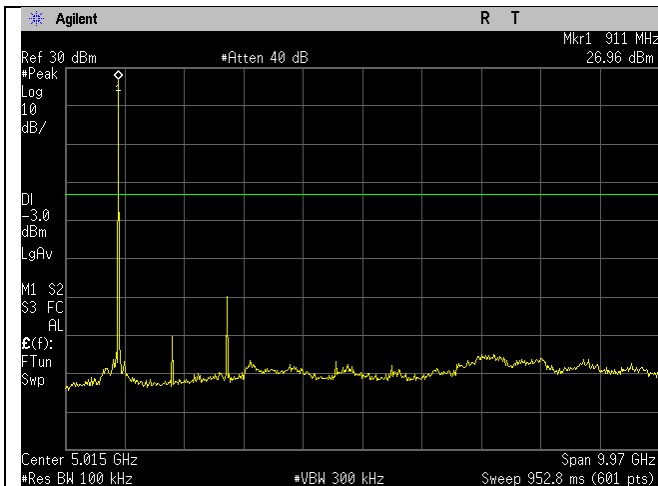
920MHz_15.209_800MHz-1GHz_Lora 2

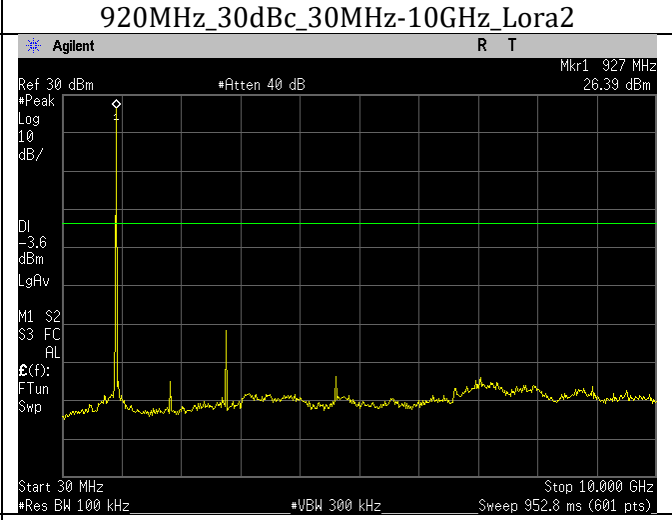
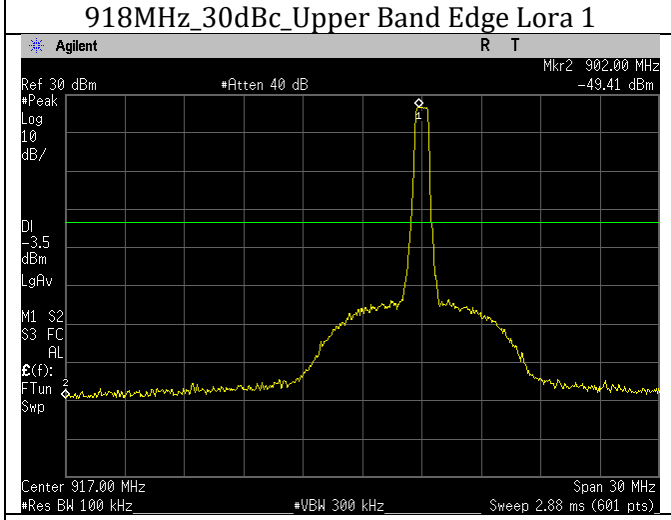
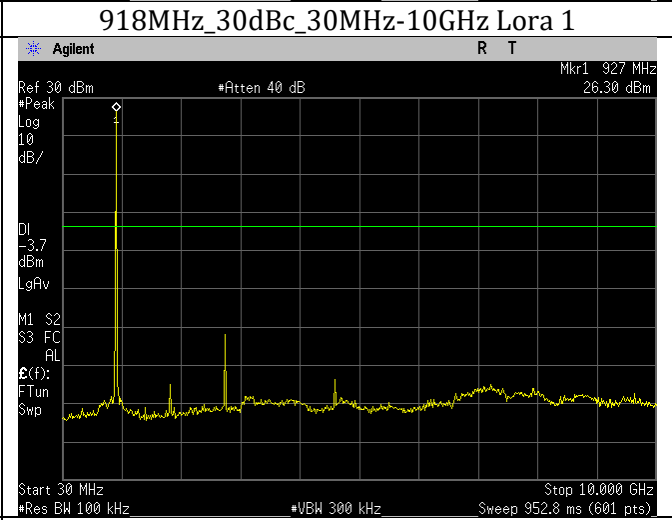
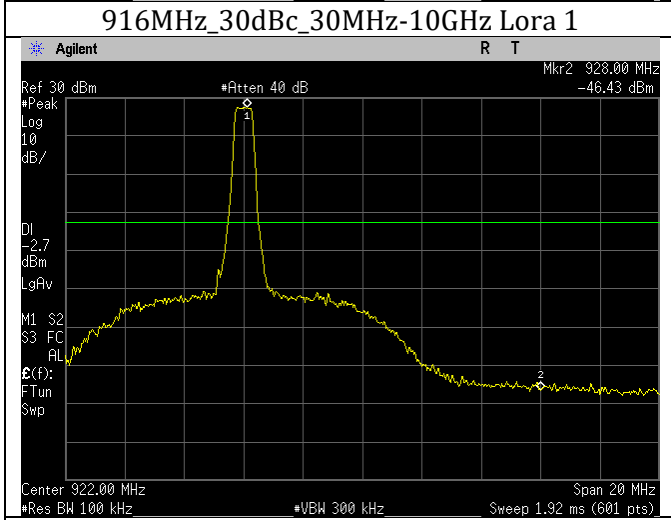
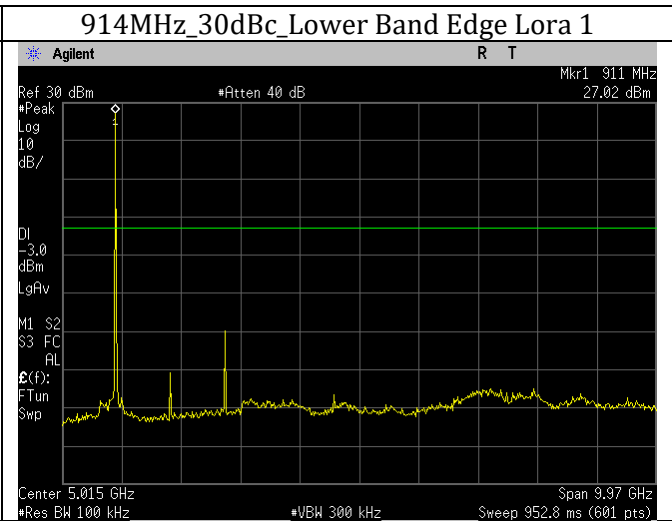
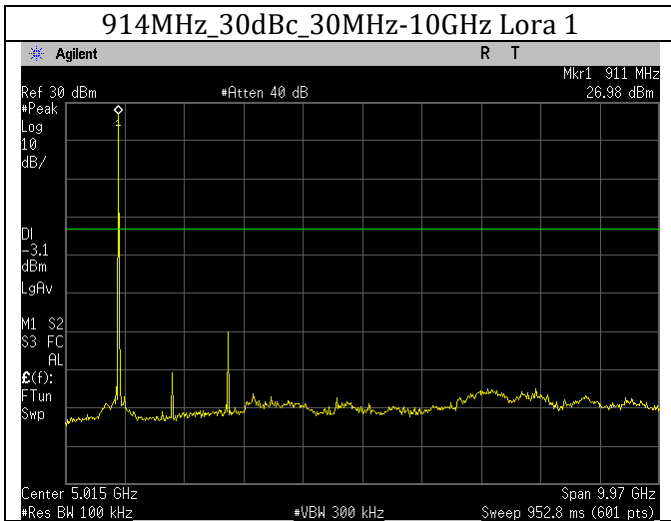


922MHz_15.209_800MHz-1GHz_Lora 2



924MHz_15.209_800MHz-1GHz_Lora 2





920MHz_30dBc_Lower Band Edge_Lora2

922MHz_30dBc_30MHz-10GHz_Lora2

