MPE/RF EXPOSURE REPORT

FROM

Evaluation of: Alereon Inc.–Camouflage (AL5955), Commander (AL5930) and Combat (AL5934)

To: FCC CFR 47 Part 1.1310

Report Serial No.: ALER01-U2 MPE Rev A

This report supersedes: NONE

Applicant:	Alereon Inc. 10800 Pecan Park Blvd, STE 100 Austin,TX 78750 USA
Product Function:	UWB Module with Parallel/Serial USB interface
Issue Date:	12th December 2018

This Report is Issued Under the Authority of:

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MAXIMUM PERMISSABLE EXPOSURE

Calculations for Maximum Permissible Exposure Levels
Power Density = Pd (mW/cm^2) = EIRP/($4*\pi*d^2$)
EIRP = P * G
P = Peak output power (mW)
G = Antenna numeric gain (numeric)
d = Separation distance (cm)
Numeric Gain = 10 ^ (G (dBi)/10)

The calculations in the table below use the highest conducted power values specified for the EUT. These calculations represent worst case in terms of the exposure levels. As the 3 units use the same RF Chipset with the same antenna, the MPE values are the same for each unit tested. Only one MPE value is reported.

Maximum Permissible Exposure

Freq. Band (MHz)	Ant Gain (dBi)	Numeric Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Calculated Power Density (mW/cm^2) @ 20cm	Power Density Limit (mW/cm^2)	Min Calculated safe distance for Limit (cm)
3168.0 – 8976.0	0.2	1.05	-41.5	7.05E-05	1.47E-08	1.0	0.00

Specification - Maximum Permissible Exposure Limits

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	$*900/f^2$	6
30-300	61.4	0.163	1.0	6
300-1,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	$*180/f^2$	30
30-300	27.5	0.073	0.2	30
300-1,500	--	--	f/1500	30
1,500-100,000	--	--	1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

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