

Model Information	
FCC ID:	NZLU AHL5P
Model:	UAHL5P
# of Transmitters Simultaneously Transmitting	2
Distance to User (cm)	20
Mobile or Portable	Mobile
Field Strength or Worse Case Output Power	
Radiated Field Strength - 288MHz(dBuV/m)	82.7
Radiated Field Strength - 310MHz(dBuV/m)	84.34
Radiated Field Strength - 365MHz(dBuV/m)	86.6
Radiated Field Strength - 430MHz(dBuV/m)	89.45
Worse Case Output Power - 902-928MHz (dBm)	1.16
Antenna Gain	
Worse Case Antenna Gain - HL 288MHz (dBd)	-26.58
Worse Case Antenna Gain - HL 310MHz (dBd)	-25.02
Worse Case Antenna Gain - HL 365MHz (dBd)	-26.81
Worse Case Antenna Gain - HL 430MHz (dBd)	-20.77
Worse Case Antenna Gain - HL High Band (dBd)	-5.86

Requirements	
Distance to User (cm):	d $\geq$ 20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	288
Measured Field Strength (dBuV/m):	82.70
Distance to User (cm):	20
dBuV/m to V/m	0.014
Worst Case EIRP (mW)	0.055863
Power Density (mW/cm <sup>2</sup> )	0.000011
Power Density Limit (mW/cm <sup>2</sup> )	0.2
Ratio	5.55676E-05

Exposure Evaluation  
 Equation from page 18 of OET Bulletin 65, Edition 97-01  
 $S=(PG)/4\pi R^2$

Where S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

Table 1 from 47 CFR 1.1310—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
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(ii) 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 <sup>2</sup> )	<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.

According to KDB447498 Section 3, the RF exposure guidelines adopted by the FCC are based on SAR and MPE limits. The basic restrictions for human exposure is defined by SAR limits. MPE limits are derived from the SAR limits, in terms of free-space field strength and power density.

Requirements	
Distance to User (cm):	d $\geq$ 20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	310
Measured Field Strength (dBuV/m):	84.34
Distance to User (cm):	20
dBuV/m to V/m	0.016
Worst Case EIRP (mW)	0.081493
Power Density (mW/cm <sup>2</sup> )	0.000016
Power Density Limit (mW/cm <sup>2</sup> )	0.206666667
Ratio	7.84478E-05

Exposure Evaluation  
 Equation from page 18 of OET Bulletin 65, Edition 97-01  
 $S=(PG)/4\pi R^2$

Where S: power density  
 P: power input to the antenna  
 G: power gain of the antenna in the direction of interest relative to an isotropic radiator.  
 R: distance to the center of radiation of the antenna

Table 1 from 47 CFR 1.1310—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(II) 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 <sup>2</sup> )	<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.

According to KDB447498 Section 3, the RF exposure guidelines adopted by the FCC are based on SAR and MPE limits. The basic restrictions for human exposure is defined by SAR limits. MPE limits are derived from the SAR limits, in terms of free-space field strength and power density.

Requirements	
Distance to User (cm):	d $\geq$ 20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	365
Measured Field Strength (dBuV/m):	86.60
Distance to User (cm):	20
dBuV/m to V/m	0.021
Worst Case EIRP (mW)	0.137126
Power Density (mW/cm <sup>2</sup> )	0.000027
Power Density Limit (mW/cm <sup>2</sup> )	0.24333333
Ratio	0.000112111

Exposure Evaluation  
 Equation from page 18 of OET Bulletin 65, Edition 97-01  
 $S=(PG)/4\pi R^2$

Where S: power density  
 P: power input to the antenna  
 G: power gain of the antenna in the direction of interest relative to an isotropic radiator.  
 R: distance to the center of radiation of the antenna

Table 1 from 47 CFR 1.1310—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(ii) 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 <sup>2</sup> )	<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.

According to KDB447498 Section 3, the RF exposure guidelines adopted by the FCC are based on SAR and MPE limits. The basic restrictions for human exposure is defined by SAR limits. MPE limits are derived from the SAR limits, in terms of free-space field strength and power density.

Requirements	
Distance to User (cm):	d $\geq$ 20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	430
Measured Field Strength (dBuV/m):	89.45
Distance to User (cm):	20
dBuV/m to V/m	0.030
Worst Case EIRP (mW)	0.264315
Power Density (mW/cm <sup>2</sup> )	0.000053
Power Density Limit (mW/cm <sup>2</sup> )	0.286666667
Ratio	0.000183432

Exposure Evaluation  
 Equation from page 18 of OET Bulletin 65, Edition 97-01  
 $S=(PG)/4\pi R^2$

Where S: power density  
 P: power input to the antenna  
 G: power gain of the antenna in the direction of interest relative to an isotropic radiator.  
 R: distance to the center of radiation of the antenna

Table 1 from 47 CFR 1.1310—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(ii) 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 <sup>2</sup> )	<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.

According to KDB447498 Section 3, the RF exposure guidelines adopted by the FCC are based on SAR and MPE limits. The basic restrictions for human exposure is defined by SAR limits. MPE limits are derived from the SAR limits, in terms of free-space field strength and power density.

Requirements	
Distance to User (cm):	d $\geq$ 20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	902.25
Distance to User (cm):	20
Worse Case Output Power (dBm):	1.16
Distance to User (cm):	20.1
Antenna Gain (dBi)	-3.71
Numerical Antenna Gain	0.425598413
Tune Up Adjustment (dB)	1
Worse Case Output Power with tune up tolerance (dBm):	2.16
Worse Case Output Power with tune up tolerance (mW):	1.644
EIRP (mW)	0.699842
Power Density (mW/cm <sup>2</sup> )	0.000139
Power Density Limit (mW/cm <sup>2</sup> )	0.6015
Ratio	0.000231587

#### Exposure Evaluation

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = (PG) / 4\pi R^2$$

Where S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

Table 1 from 47 CFR 1.1310—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	<sup>*</sup> (100)	<30
1.34-30	824/f	2.19/f	<sup>*</sup> (180/f <sup>2</sup> )	<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.

According to KDB447498 Section 3, the RF exposure guidelines adopted by the FCC are based on SAR and MPE limits. The basic restrictions for human exposure is defined by SAR limits. MPE limits are derived from the SAR limits, in terms of free-space field strength and power density.

<b>FCC Total Exposure Ratio</b>	
<b>Specification/Frequency Band</b>	<b>Worse Case</b>
15.231 - 286-440MHz	0.000183
15.247 - 902-928MHz	0.000232
Total Exposure Ratio=	<b>0.000415</b>