

Model Information	
FCC ID:	NZLUAHL6D
Model:	UAHL6D
# of Transmitters Simultaneously Transmitting	3
Distance to User (cm)	20
Mobile or Portable	Mobile
Field Strength or Worse Case Output Power	
Radiated Field Strength - 288MHz(dBuV/m)	81.79
Radiated Field Strength - 310MHz(dBuV/m)	83.88
Radiated Field Strength - 365MHz(dBuV/m)	84.1
Radiated Field Strength - 430MHz(dBuV/m)	86.17
Worse Case Output Power - 902-928MHz (dBm)	-5.32
Worse Case Output Power - BLE - 2.4GHz (dBm)	6.88
Antenna Gain	
Worse Case Antenna Gain - HL 288MHz (dBi)	-26.75
Worse Case Antenna Gain - HL 310MHz (dBi)	-22.77
Worse Case Antenna Gain - HL 365MHz (dBi)	-19.11
Worse Case Antenna Gain - HL 430MHz (dBi)	-10.1
Worse Case Antenna Gain - HL High Band (dBi)	13.16
Worse Case Antenna Gain - BLE (dBi)	-3.04

Requirements	
Distance to User (cm):	$d \geq 20$
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	288
Measured Field Strength (dBuV/m):	81.79
Distance to User (cm):	20
dBuV/m to V/m	0.012
Worst Case EIRP (mW)	0.045302
Power Density (mW/cm <sup>2</sup> )	0.000009
Power Density Limit (mW/cm <sup>2</sup> )	0.2
Ratio	4.50631E-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

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)	Permissible Exposure (MPE)
(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):	83.88
Distance to User (cm):	20
dBuV/m to V/m	0.016
Worst Case EIRP (mW)	0.073303
Power Density (mW/cm <sup>2</sup> )	0.000015
Power Density Limit (mW/cm <sup>2</sup> )	0.206666667
Ratio	7.05636E-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):	84.10
Distance to User (cm):	20
dBuV/m to V/m	0.016
Worst Case EIRP (mW)	0.077112
Power Density (mW/cm <sup>2</sup> )	0.000015
Power Density Limit (mW/cm <sup>2</sup> )	0.243333333
Ratio	6.30449E-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

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)	Permissible Exposure (MPE)
(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):	86.17
Distance to User (cm):	20
dBuV/m to V/m	0.020
Worst Case EIRP (mW)	0.124200
Power Density (mW/cm <sup>2</sup> )	0.000025
Power Density Limit (mW/cm <sup>2</sup> )	0.286666667
Ratio	8.61934E-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

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)	Permissible Exposure (MPE)
(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
Distance to User (cm):	20
Worse Case Output Power (dBm):	-5.32
Distance to User (cm):	20.1
Antenna Gain (dBi)	13.16
Numerical Antenna Gain	20.70141349
Tune Up Adjustment (dB)	1
Worse Case Output Power with tune up tolerance (dBm):	-4.32
Worse Case Output Power with tune up tolerance (mW):	0.370
EIRP (mW)	7.655966
Power Density ( $\text{mW}/\text{cm}^2$ )	0.001524
Power Density Limit ( $\text{mW}/\text{cm}^2$ )	0.601333333
Ratio	0.002534166

#### 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

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

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≥20
Exposure Condition:	Mobile
Model Information	
Frequency (MHz):	2402
Distance to User (cm):	20
Worse Case Output Power (dBm):	6.88
Distance to User (cm):	20
Antenna Gain (dBi)	-3.04
Numerical Antenna Gain	0.496592321
Tune Up Adjustment (dB)	1
Worse Case Output Power with tune up tolerance (dBm):	7.88
Worse Case Output Power with tune up tolerance (mW):	6.138
EIRP (mW)	3.047895
Power Density (mW/cm <sup>2</sup> )	0.001222
Power Density Limit (mW/cm <sup>2</sup> )	1
Ratio	0.00122166

#### 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

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.

#### Permissible Exposure (MPE)

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.

FCC Total Exposure Ratio	
Specification/Frequency Band	Worse Case
15.231 - 286-440MHz	0.000086
15.247 - 902-928MHz	0.002534
15.247 - 2.4GHz (BLE)	0.001222
Total Exposure Ratio=	0.004253