

EXHIBIT 13. CHANNEL PLAN AND SEPARATION

Optional for DTS

EXHIBIT 14. MPE CALCULATIONS

The following MPE calculations are based on the Centurion WCR2400 half wavelength dipole antenna, with a measured ERP of 138.0, at 1 meter, and conducted RF power of +30 dBm as presented to the antenna. The calculated gain of this antenna, based on the specification sheet is 2.0 dB.

Equation from page 18 of OET Bulletin 65, Edition 97-01			
$S = \frac{PG}{4\pi R^2}$			
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		
Maximum peak output power at antenna input terminal:	30.00	(dBm)	
Maximum peak output power at antenna input terminal:	1000.000	(mW)	
Antenna gain(typical):	2	(dBi)	
Maximum antenna gain:	1.585	(numeric)	
Prediction distance:	20	(cm)	
Prediction frequency:	2405	(MHz)	
MPE limit for uncontrolled exposure at prediction frequency:	1	(mW/cm ²)	
Power density at prediction frequency:	0.315304	(mW/cm ²)	
Maximum allowable antenna gain:	7.0	(dBi)	
Margin of Compliance at 20 cm =	5.0	dB	

Prepared For: Trilliant Networks	Model #: EM-0038B	LS Research, LLC
EUT: 1 Watt Module	Serial #: n/a	Template: 15.247 DTS TX (V2 9-06-06)
Report #: 307402.1_4	Customer FCC ID #: TMB-EM000038	Page 56 of 61

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Optional for DTS

EXHIBIT 14. MPE CALCULATIONS

The following MPE calculations are based on the trace PCB inverted F antenna, with a measured ERP of 133.3, at 1 meter, and conducted RF power of 29.9 dBm as presented to the antenna. The calculated gain of this antenna is -1.37 dB.

Prediction of MPE limit at a given distance	
Equation from page 18 of OET Bulletin 65, Edition 97-01	
$S = \frac{PG}{4\pi R^2}$	
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
Maximum peak output power at antenna input terminal:	29.90 (dBm)
Maximum peak output power at antenna input terminal:	977.237 (mW)
Antenna gain(typical):	-1.37 (dBi)
Maximum antenna gain:	0.729 (numeric)
Prediction distance:	20 (cm)
Prediction frequency:	2405 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1 (mW/cm ²)
Power density at prediction frequency:	0.141818 (mW/cm ²)
Maximum allowable antenna gain:	7.1 (dBi)
Margin of Compliance at 20 cm =	8.5 dB

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