

EXHIBIT 13. CHANNEL PLAN AND SEPARATION

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 119.0 dbuV/m (at 3 meters) and conducted RF power of 19.6 dBm as presented to the antenna. The calculated gain of this antenna is 4.17 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:	19.60	(dBm)	
Maximum peak output power at antenna input terminal:	91.201	(mW)	
Antenna gain(typical):	4.17	(dBi)	
Maximum antenna gain:	2.612	(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:	0.047395	(mW/cm^2)	
Maximum allowable antenna gain:	17.4	(dBi)	
Margin of Compliance at	20	cm =	13.2
			dB

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The following MPE calculations are based on the Nearson S131CL half wavelength dipole antenna with a measured ERP of 116.5 dBuV/m (at 3 meters) and conducted RF power of +19.8 dBm as presented to the antenna. The gain of this antenna, based on the specification sheet is 2.0 dBi.

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:	19.80	(dBm)	
Maximum peak output power at antenna input terminal:	95.499	(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:	0.030111	(mW/cm ²)	
Maximum allowable antenna gain:	17.2	(dBi)	
Margin of Compliance at 20 cm =	15.2	dB	