

Antenna: Comtelco Yagi - Y2283A-915-10RP

RF Exposure

Rules and Specifications:	15.247 (b) (4)
Guide:	OET Bulletin 65, Edition 97-01
Limit:	According to §15.247(b)(4) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
30 - 1500	---	---	$f/1500$ = 0.61 mW/cm ² @ 915 MHz	30

f = frequency in MHz

MPE Prediction of MPE according to equation from page 19 of OET Bulletin 65, Edition 97-01

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

Where: S = power density
P = power input to antenna
G = power gain of the antenna relativ to an isotropic radiator
R = Distance to the center of radiation of the antenna

Maximum output power at antenna input terminal: **28.71 dBm minus 2.5 dB* = 26.21 dBm**
= 417.8 mW

Prediction distance: **20 cm**

Antenna gain: (Comtelco Yagi - Y2283A-915-10RP) **6.0 dBd = 6.53 (numerical gain)**

Power density at 20 cm: **0.54 mW/cm²**

Test Result:	Pass
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*) **Note:** 2.5 dBm attenuation cable loss assumed

Antenna: Nearson Omni-directional SG101NT-915

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General Population / Uncontrolled Exposure**

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Maximum output power at antenna input terminal:	28.71 dBm = 743 mW
Prediction distance:	20 cm
Antenna gain: (Nearson S467FL-L-AM-915S)	5.0 dBi = 3.16 (numerical gain)

Power density at 20 cm: **0.467 mW/cm²**

Test Result:	Pass
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