

From: Peter Boers ITS/ES-Box
Sent: Friday, January 28, 2000 4:37 PM
To: 'Kwok Chan'
Subject: RE: OQT-28-SNP-03 (EA 95575)

Based on 1 Watt, no ground reflections (beam is too narrow for that, and the service needs to be installed line-of-sight, so I do not expect any other obstructions either) and OET65 formula (5 and a antenna gain of 36.5 dBi maximum (Gain = 4466, I get 1mW/cm² at 5.96 meters, or about 20')

Based on a 13" (33 cm) dish, an equal power distribution over the surface, I get a surface area of 0.02725 m² or a power of 36.68 W/m² or 3.668 mW/cm².

Based on all the above, a protection distance of 40' is very conservative.

The output power of the MMIC can be more than 1 Watt, however the transmitter is limited to 1 Watt (by internal firmware) because of Bandwidth (skirt) and modulation requirements. This is why some power measurements for RF safety were made a 2 Watt, but even at this power, the 40' distance is plenty.

Regards

Peter Boers