
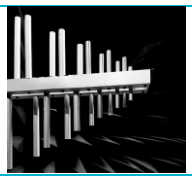
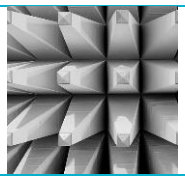

CTC advanced
member of RWTÜV group

Bundesnetzagentur

BNetzA-CAB-02/21-102

DAkkS Deutsche Akkreditierungsstelle D-PL-12076-01-03

Maximum Permissible Exposure (MPE) & Exposure evaluation

Report identification number: 1-2201/21-01-05-A

Certification numbers and labeling requirements	
FCC ID	XXZ-INTOW70LDAC
ISED number	-/-
HVIN (Hardware Version Identification Number)	-/-
PMN (Product Marketing Name)	-/-
FVIN (Firmware Version Identification Number)	-/-
HMN (Host Marketing Name)	-/-

This report is electronically signed and valid without handwriting signature. For verification of the electronic signatures, the public keys can be requested at the testing laboratory.

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EUT technologies:

Technologies:	Max. EIRP
OneWeb Ku-Band Satelllite Terminal	36.6 dBW/40 MHz with 730mm antenna

Prediction of MPE limit at given distance - FCC

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 = Antenna gain
R = Distance to the center of radiation of the antenna
PG = Output Power including antenna gain

The table below is excerpted from Table 1B of 47 CFR 1.1310 titled “Limits for Maximum Permissible Exposure (MPE), Limits for General Population/Uncontrolled Exposure”

Frequency Range (MHz)	Power Density (mW/cm^2)	Averaging Time (minutes)
300 -1500	f/1500	30
1500 - 100000	1.0	30

where f = Frequency (MHz)

Prediction: worst case

Antenna size		730mm	
Antenna gain		38.5 dBi	
	Frequency (MHz)	14 125	
PG	Declared max power (EIRP)	36.6	dBW
R	Distance	**7.5**	m
S	MPE limit for uncontrolled exposure	1	mW/cm^2
	Calculated Power density:	0.6466	mW/cm^2
	Calculated percetenge of Limit:	64.66 %	

This prediction demonstrates the following:

The minimum distances in the table above are required in the antenna far field if the satellite terminal does not stop transmitting without reception.