RF Technology, Inc.
16 Testa Place
South Norwalk, CT 06854

14JUN00

Federal Communications Commission
Authorization and Evaluation Division

Gentlemen,

We are submitting this application is for adding an emission designator to our existing granted equipment B8HUCL-130T. The emission designation we want to add is 25M0D9W.

The addition of this emission designator does not change the equipment characteristics as applied for under the original grant.

The UCL-130T is a heterodyne radio that accepts an internal or external 70MHz modulated signal. The 70MHz modulated signal can be either analog or digital.

NECESSARY BANDWIDTH

To calculate the necessary bandwidth the following formula was used:

$Bn = 1/m(Din + Do)Fe \times \alpha$

Where: Bn = Necessary Bandwidth
m = Modulation Efficiency = 4 for 16QAM
Din = Input Data Rate = 58.2 MB/s
Do = Overhead Data = 2.0MB/s
Fe = Forward Error Correction = 204/184 (Reed Solomon)
α = Filter Roll Off Factor = 1.35

$Bn = 1/4(58.2 + 2)204/184 \times 1.35$
$Bn = 1/4(60.2)1.1 \times 1.35$
$Bn = (15.05)1.1 \times 1.35$
$Bn = 16.555 \times 1.35$
$Bn = 22.35MHz$

Sincerely,

RF Technology, Inc.
John Timm
Technical Sales Manager