Globalstar User Terminal FCC Part 25 Out-of-Band Emissions Requirements and Bandwidth Correction Factors for 4 kHz and 1.0 MHz Limit Bandwidths

Channel Bandwidth (BW) = **1230** kHz BW Corr. Factor = 10 log(Meas BW / Limit BW)
Mean Output Power (P.o) = **0.00** dBW EIRP LHCP at Full Power

FCC §25.202 (f) Break Point Frequencies and Mean Power Limits in any 4 kHz Band

Frequencies Below Lower Band Edge f.lbe **1610** MHz
f.1 = f.be - BW / 2 = 1609.385 MHz f.1 < f ≤ f.lbe , Limit = P.o - 25 dB
f.2 = f.be - 2*BW = 1607.54 MHz f.2 < f ≤ f.1 , Limit = P.o - 35 dB
f ≤ f.2 , Limit = -43 dBW / 4 kHz

Frequencies Above Upper Band Edge f.ube **1621.35** MHz
f.1 = f.be + BW / 2 = 1621.965 MHz f.ube < f ≤ f.1 , Limit = P.o - 25 dB
f.1 = f.be + 2*BW = 1623.81 MHz f.1 < f ≤ f.2 , Limit = P.o - 35 dB
f.2 ≤ f , Limit = -43 dBW / 4 kHz

FCC §25.216 (a) (3) Limits for Special Protection of Radionavigation Services (1559-1605 MHz)
(averaged over 20 ms)

Broadband Limit (EIRP Density) -70 dBW / MHz
Narrowband Limit (EIRP) -80 dBW for discrete emissions of less than 700 Hz bandwidth

Frequency Range (MHz)	FCC Pt. 25 §25.202(f) & §25.216 (a) (3) (dBW)	FCC Part 25 Limit for Given Ch. Pwr. (dBW)	FCC Limit Bandwidth (kHz)	Spectrum Analyzer Measurement BW (kHz)	Bandwidth Correction Factor (dB)	BW Corr. Factor for Given Meas. BW (dB)	Pt. 25 Limits, Normalized to Meas BW (dBW)
0.009 - 1.0	**-43**	-43	**4**	**3**	10 * log(BW/4)	-1.25	-44.2
1.0 - 10	**-43**	-43	**4**	**10**	10 * log(BW/4)	3.98	-39.0
10 - 30	**-43**	-43	**4**	**10**	10 * log(BW/4)	3.98	-39.0
30 - 1000	**-43**	-43	**4**	**10**	10 * log(BW/4)	3.98	-39.0
1000 - 15559	**-43**	-43	**4**	**100**	10 * log(BW/4)	13.98	-29.0
1559-1605	**-70**	-70	**1000**	**100**	10 * log(BW/1000)	-10.00	-80.0
1559-1605	**-80**	-80	**0.7**	**1**	10 * log(BW/0.7)	1.55	-78.5
1605 - 1607.54	**-43**	-43	**4**	**100**	10 * log(BW/4)	13.98	-29.0
1607.54 - 1609.385	P.o - 35	-35.0	**4**	**100**	10 * log(BW/4)	13.98	-21.0
1609.385 - 1610	P.o - 25	-25.0	**4**	**10**	10 * log(BW/4)	3.98	-21.0
1610 - 1621.35	P.o	0.0	**1230**	**30**	10 * log(BW/1230)	-16.13	-16.1
1621.35 - 1621.965	P.o - 25	-25.0	**4**	**10**	10 * log(BW/4)	3.98	-21.0
1621.965 - 1623.81	P.o - 35	-35.0	**4**	**10**	10 * log(BW/4)	3.98	-31.0
1623.81 - 2921	**-43**	-43	**4**	**30**	10 * log(BW/4)	8.75	-34.2
2921 - 6500	**-43**	-43	**4**	**300**	10 * log(BW/4)	18.75	-24.2
6500 - 16,500	**-43**	-43	**4**	**1000**	10 * log(BW/4)	23.98	-19.0

(Measurement Bandwidths per ETSI Recommendations)

UT Transmit Channel Frequency Algorithms (for 30 kHz tuning resolution)

Frequency in MHz: f.t = 1610.64 + 0.03*(n-1) = 1610.64 + 0.03*((No - 1)*41 + 3)

Channel No.	n	Frequency	
1	**4**	1610.73	1610.73
2	**45**	1611.96	1611.96
3	**86**	1613.19	1613.19
4	**127**	1614.42	1614.42
5	**168**	1615.65	1615.65
6	**209**	1616.88	1616.88
7	**250**	1618.11	1618.11
8	**291**	1619.34	1619.34
9	**332**	1620.57	1620.57
10	**373**	1621.80	1621.80
11	**414**	1623.03	1623.03
12	**455**	1624.26	1624.26
13	**496**	1625.49	1625.49

Spreadsheet Convention: Boldface Values are Input Values which Affect Calculated Values Elsewhere in Spreadsheet.