

Appendix A
To
FCC Correspondence Reference Number 7111

Letters, Tables and Graphs

Bosch Telecom CPE Roof Unit Transceiver
FCC ID: NNS3214864
FCC Form 731 Confirmation Number: EA92818

April 23, 1999

BOSCH TELECOM, INC.

BOSCH

March 30, 1999

Telephone: (972) 852-6700
(800) 296-4268
Fax: (972) 852-6797

1125 E. Collins Blvd.
Richardson, Texas 75081

Mr. Frank Coperich
Federal Communications Commission
Office of Engineering and Technology
7435 Oakland Mills Road
Columbia, MD 21046

***RE: Bosch Telecom, Inc. Requests for Equipment Authorization
Correspondence Ref. Numbers 6847 and 6848.***

Dear Frank:

Bosch Telecom, Inc. ("Bosch"), a manufacturer of telecommunications equipment, is in the process of seeking the initial approval of Local Multipoint Distribution Service ("LMDS") transmitting equipment from the Commission. On December 10 and 31, 1998 (FCC IDs: NNS3214823 and NNS3214864), Bosch filed the first LMDS equipment authorization applications with the Commission. Additionally, on January 27, 1999, Bosch requested that the Commission provide an interpretation of Part 101 of its rules concerning emission mask requirements.

Section 101.111(a)(2)(ii) of the Commission's rules¹ requires the mean power of emissions to be attenuated below the mean output power of the transmitter² as specified by the following equation but in no event less than 11 dB:

$$A = 11 + 0.4(P - 50) + 10 \log_{10} B \text{ (attenuation greater than 56 dB is not required.)}$$

where A = attenuation in dB below the mean output power level
P = percent removed from the carrier frequency
B = authorized bandwidth in MHz

¹ See 47 C.F.R. § 101.111(a)(2)(ii).

² When using digital modulation techniques for operating frequencies above 15 GHz, in any 1 MHz band, the center frequency of which is removed from the assigned frequency by more than 50 percent up to and including 250 percent of the authorized bandwidth.

BOSCH TELECOM, INC.

BOSCH

Telephone: (972) 852-6700
(800) 296-4268
Fax: (972) 852-6797

1125 E. Collins Blvd.
Richardson, Texas 75081

Moreover, Section 101.109 of the Commission's rules asserts that the maximum authorized bandwidth for LMDS transmitters is 850 MHz, which is the value determined by the Commission that should be substituted in the equation above for "B". Bosch agrees that this interpretation of the current rules be applied to its current requests for equipment authorization.

Please contact Scott Marin or myself should any additional information be required.

Sincerely,

Harry Limyohn, VP, Eng'g & Dev
Per

James W. McCoy
Chief Technology Officer

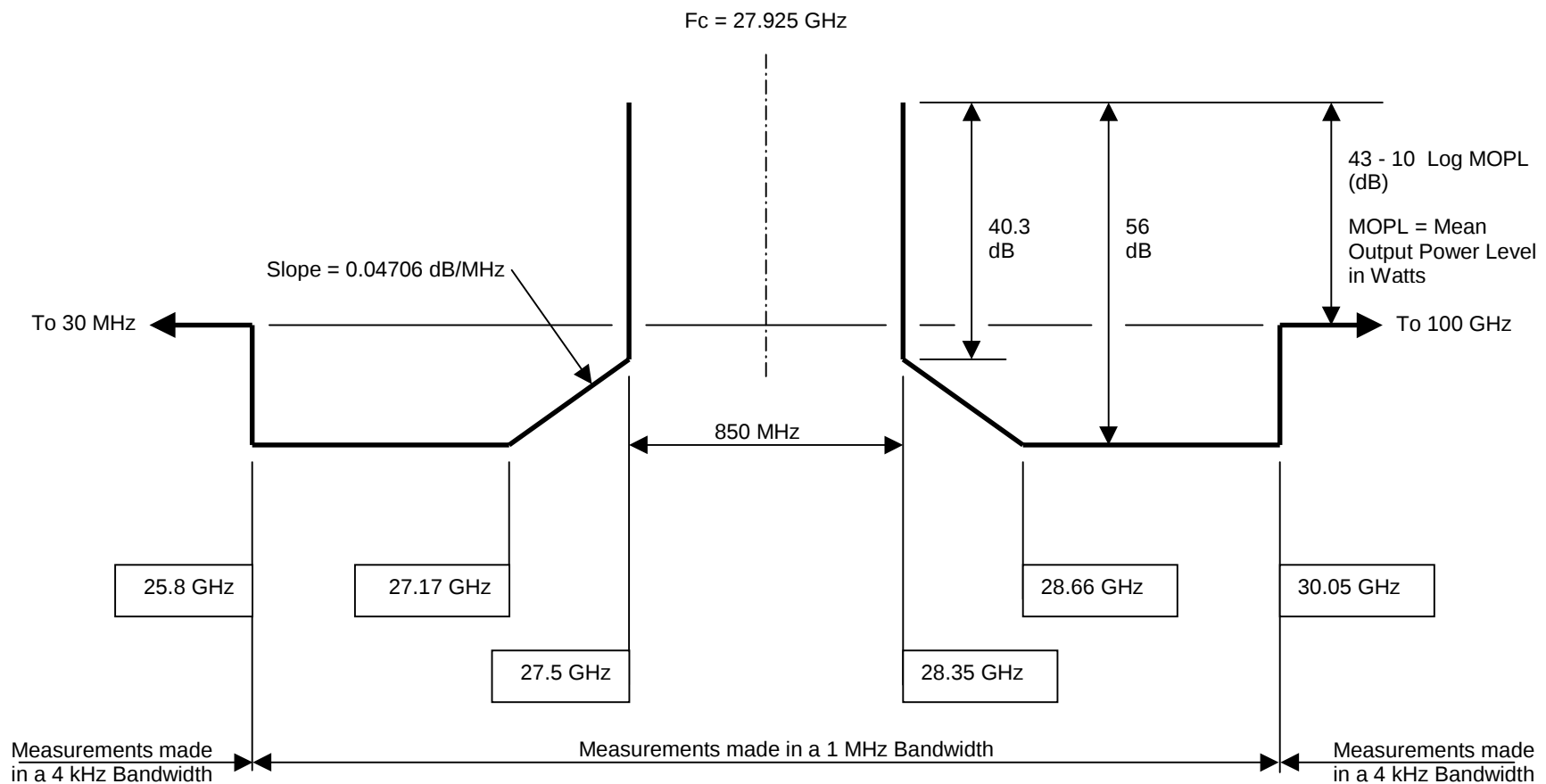


Figure 1 – Part 101 Paragraph 101.111 (a) (2) (ii) & (iii) Emission Limit (For Transmitters Employing Digital Modulation Techniques and Operating Above 15 GHz)

Limit for Radiated Emissions from the CPE Roof Unit at a Test Distance of 3 meters

Frequency Range	Radiated Emission Limit	Comments
30 MHz to 25.8 GHz	84.6 dB μ V/m (per 4 kHz BW)	117.6 dB μ V/m – (43 + 10 Log ₁₀ MOPW) dB
25.8 GHz to 27.17 GHz	61.6 dB μ V/m (per 1 MHz BW)	117.6 dB μ V/m – 56 dB
27.17 GHz to 27.5 GHz	Increases linearly from 61.6 dB μ V/m at 27.17 GHz to 77.3 dB μ V/m at 27.5 GHz (per 1 MHz BW)	117.6 dB μ V/m - 11 - 0.4 (P-50) - 10 Log ₁₀ B where B = 850 MHz P = Percent of Bandwidth from Center Frequency
27.5 GHz to 28.35 GHz	N/A	Not Applicable within the 850 MHz Authorized Bandwidth (27.5 – 28.35 GHz)
28.35 GHz to 28.66 GHz	Decreases linearly from 77.3 dB μ V/m at 28.35 GHz to 61.6 dB μ V/m at 28.66 GHz (per 1 MHz BW)	117.6 dB μ V/m - 11 - 0.4 (P-50) - 10 Log ₁₀ B where B = 850 MHz P = Percent of Bandwidth from Center Frequency
28.66 GHz to 30.05 GHz	61.6 dB μ V/m (per 1 MHz BW)	117.6 dB μ V/m – 56 dB
30.05 GHz to 100 GHz	84.3 dB μ V/m (per 4 kHz BW)	117.6 dB μ V/m – (43 + 10 Log ₁₀ MOPW) dB