

ROGERS LABS, INC.

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June 17, 2002

Federal Communications Commission
Equipment Approval Services
P.O. Box 35815
Pittsburgh, PA 15251-3315

Applicant: GE Transportation Systems Global Signaling
2712 South Dillingham Road
GRAIN VALLEY, MO 64029

RE: Request for additional information

Equipment: FCC ID: AJT-12RII-V1A
FCC Rules: Parts 2, 22C, 22E, 74D and 90.

Gentlemen:

A portion of the request is reproduced below.

To: Scot Rogers,
From: Stan Lyles
slyles@fcc.gov
FCC Application Processing Branch

Re: FCC ID AJT-GS12RII-V1A
Applicant: GE Transportation Systems Global
Signaling LLC
Correspondence Reference Number: 23129
731 Confirmation Number: EA363196

- 1.) Strong and specific justification for your certification request of CFR Parts 22 and 74. Please explain.
- 2.) Please specify the applicable section of rule parts for 22 and 74 used for this device in test report. For example RF Power Output , what applicable section of rule part 22 and 74 was used, Modulation Characteristics, what applicable section of rule part 22 and 74 was used, Occupied Bandwidth, what applicable section of rule part 22 and 74 was used ect.
- 3.) Please provide emissions mask plots for the applicable sections of parts 22, 74 and 90.
- 4.) Is this device fix or mobile? How will this device be used. Please explain.
- 5.) Please provide a calculation for each emission designator.

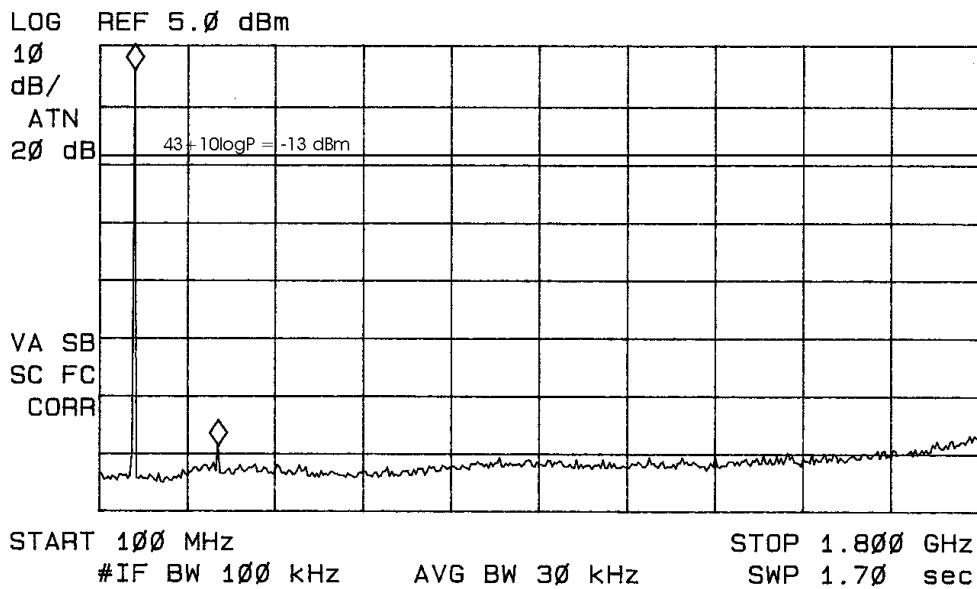
RESPONSE:

1. Please remove the request for parts 22 and 74 certification for this transmitter.
2. Disregard request for parts 22 and 74 for this transmitter.
3. Emission mask B of 90.210 (b) specifies (1) on any frequency removed the assigned frequency by more than 50% but not more than 100% of the authorized bandwidth at least 20 dB. (2) 100% to 250% 35 dB and (3) greater than 250% at least 43 + 10log(P) dB. This

emission mask was added to the figure 10 plot and is placed below. Note this equates to 60 dB below fundamental, which places the spurious emissions below -13 dBm.

MARKER Δ
162 MHz
-64.52 dB

ACTV DET: PEAK
MEAS DET: PEAK QP
MKR 162 MHz
-64.52 dB



4. The unit is a mobile transmitter placed inside the train engine with the antenna mounted outside the locomotive.
5. Calculations from 2.202.

16k0f3e

Max. Modulation (M) kHz. = 3

Max. Deviation (D) kHz. = 5

Constant factor (K) = 1

$$B_n = 2M + 2DK = 2(3) + 2(5)(1) = 16 \text{ kHz}$$

6k0f3e

Max. Modulation (M) kHz. = 3

Max. Deviation (D) kHz. = 2.5

Constant factor (K) = 1

$$B_n = 2M + 2DK = 2(3) + 2(2.5)(1) = 11 \text{ kHz}$$

Digital information

10k0f2d

Max. Modulation (M) kHz. = 2.4 k

Max. Deviation (D) kHz. = 3 k

Constant factor (K) = 1.2

$$B_n = 2M + 2DK = 2(2.4) + 2(3)(1.2) = 12 \text{ kHz}$$

Thank you for your help in resolving these issues. Please continue with the grant of certification process.

Scot Rogers

Rogers Labs, Inc.