



Licensed Devices

Recent Rule Interpretations

**Federal Communications Commission
Office of Engineering and Technology
Laboratory Division**



Rule Interpretations

- ❑ **Low Power Auxiliary Station Operations in the 698-806 MHz Band – (FCC 08-188)**
 - NOTICE OF PROPOSED RULE MAKING AND ORDER: Effective: August 20, 2008
 - 1) Imposes a freeze on granting equipment authorization requests for low power auxiliary station devices that would operate in Part 74, 698-806 MHz.
 - 2) Applications may be filed with the FCC but will not be acted upon until the conclusion of the proceeding.



Rule Interpretations

- ❑ **Biennial Regulatory Review – Amendment of Parts 24, and 27 – (FCC 08-85)**
 - NOTICE OF PROPOSED RULE MAKING AND ORDER: Effective: June 2, 2008
 - 1) Power measurements, for transmitters authorized under these sections, may be made either in accordance with a Commission-approved average power technique, or using peak power measurements.
 - 2) If an average power technique is used, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.



Rule Interpretations

❑ **Biennial Regulatory Review – Amendment of Parts 24, and 27 – (FCC 08-85)**

- NOTICE OF PROPOSED RULE MAKING AND ORDER: Effective: June 2, 2008

3) Affects (Part 24) 1850-1915 / 1930-1995 MHz - PCS bands, and (Part 27) 1710-1755 / 2110-2155 MHz - AWS bands.

4) Power measurements techniques need to be finalized. FCC developing 13 dB PAR test method using CCDF analyzer function.



Rule Interpretations

- ❑ **Amendment of Section 90.20(e)(6) regarding stolen vehicle recovery systems (SVRS) – (FCC 08-186)**
 - **REPORT AND ORDER: Released: August 13, 2008**
 - 1) Concerns LoJack Corp. attempt to modify Section 90.20(e)(6), to accommodate its future narrowband operations on frequency 173.075 MHz.
 - 2) Increases RF power limits, duty cycles, and expands allowable modulation types.
 - 3) Expands the scope of 90.20(e)(6) to permit the tracking of lost cargo and wanted persons.



Automatic Identification Systems (AIS) – Class B

- TCBs cannot authorize AIS- Class B devices
- Report and Order released Sept. 19, 2008 (FCC 08-208)

http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-208A1.pdf

- Designed for 'non-SOLAS' vessels - small commercial boat, fishing boat and leisure markets
- Carrier-Sense TDMA (CSTDMA) – will not transmit on occupied channel(s) to minimize interference to AIS – Class A devices
- Must have DSC



AIS - Class B (Cont.)

- ❑ Technical Parameters – IEC 6287-1 (Section 11)
 - AIS 1: Channel 87 (161.975 MHz), AIS 2: Channel 88B (162.025 MHz), Remote frequency assignment capability (Frequency agile)
 - Tighter emissions mask than Class A
 - Power Limit: 2 Watts
 - Only has 25 kHz BW
 - Emissions Mask
 - Refer to IEC 62287-1 Section 11.1.3.3
 - ± 10 kHz between carrier: 0 dBc
 - ± 10 kHz removed from the carrier: -25 dBc
 - ± 25 kHz to ± 62.5 kHz removed from the carrier: the lower value of -60 dBc or -30 dBm



AIS - Class B (Cont.)

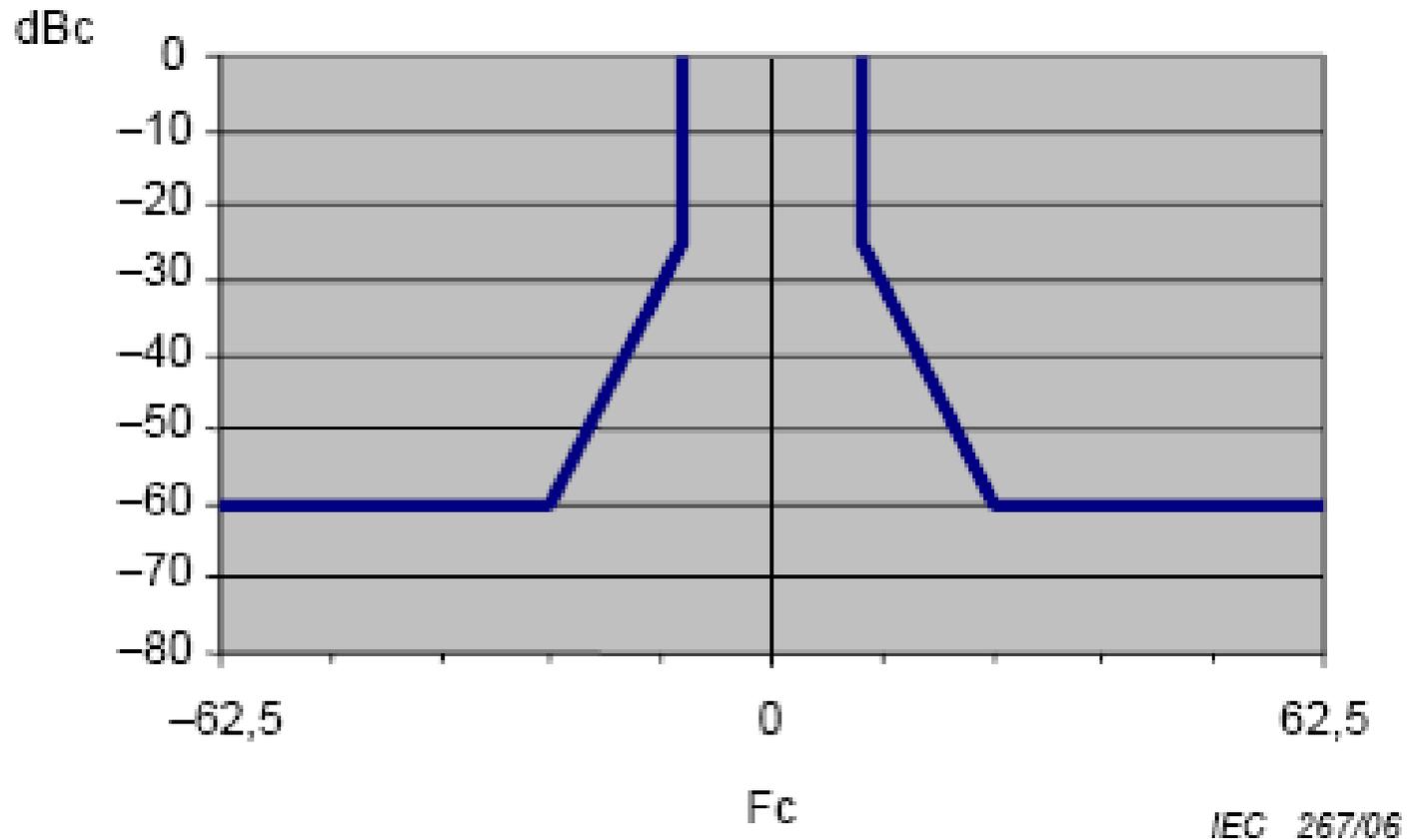


Figure 10 – Emission mask



AIS - Class B (Cont.)

- ❑ Section 80.231(b) Labeling Requirements:
 - “WARNING: It is a violation of the rules of the Federal Communications Commission to input an MMSI that has not been properly assigned to the end user, or to otherwise input any inaccurate data in this device.”
- ❑ Section 80.231(b) User’s Manual requirements:
 - How to accurately enter and confirm static data (Vessel ID information)
 - Data entered by qualified vendor or professional
 - Instructions on how to accurately program into the device and confirm static data pertaining to the vessel in which the device is or will be installed



AIS - Class B (Cont.)

- Equipment Class – AIS
- Requires USCG approval letter
- Line Items
 - For 25 KHz BW: 156-163 MHz, 2 Watts, Emissions Designator 16K0GXW
 - For DSC: 156.525 MHz, 2 Watts, Emissions Designator 14K2G2B
- Two Grant Conditions
 - The device operates on AIS 1 - Channel 87 (161.975 MHz) and AIS 2 - Channel 88B (162.025 MHz) with remote frequency assignment capability. This device also has DSC capability.



AIS - Class B (Cont.)

- In addition to the labels or other identifying information required under §§ 2.925 and 2.926 of this chapter, each Class B AIS device shall include a conspicuous label that includes: (i) instructions on how to accurately program into the device and confirm static data pertaining to the vessel in which the device is or will be installed; and (ii) the following statement: **WARNING:** It is a violation of the rules of the Federal Communications Commission to input an MMSI that has not been properly assigned to the end user, or to otherwise input any inaccurate data in this device. Instructions on how to accurately enter and confirm static data in the device shall also be included in the user's manual for the device.



Sample Grant

Equipment Class : Automatic Identification Systems

Notes: Class B AIS transponder

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
CS	80	156 - 163	2	1000 Hz	16K0GXW
CS	80	156.525 - 162.525	2	1000 Hz	14K2G2B

In addition to the labels or other identifying information required under §§ 2.925 and 2.926 of this chapter, each Class B AIS device shall include a conspicuous label that includes: (i) instructions on how to accurately program into the device and confirm static data pertaining to the vessel in which the device is or will be installed; and (ii) the following statement: WARNING: It is a violation of the rules of the Federal Communications Commission to input an MMSI that has not been properly assigned to the end user, or to otherwise input any inaccurate data in this device. Instructions on how to accurately enter and confirm static data in the device shall also be included in the user's manual for the device.

The device operates on AIS 1 - Channel 87 (161.975 MHz) and AIS 2 - Channel 88B (162.025 MHz) with remote frequency assignment capability. This device also has DSC capability.



Questions and Answers

Thanks!