

Experimental STA Request for -10db HD Operation

Dear Secretary,

Educational Media Foundation (EMF) is requesting Experimental Special Temporary Authority for operation of the KLVB digital carrier levels. EMF is requesting to operate KLVB (FID 70676) in the asymmetrical mode with the upper digital sideband carrier at a power level of -10dbc and the lower digital sideband carrier at a power level of -14dbc.

Justification for request

EMF has found areas inside the KLVB 60dbu analog contour where the digital signal level is below reception levels due to the terrain within the 60dbu contour. Operating the upper sideband carrier at the -10dbc level while leaving the lower sideband carrier level at -14dbc should help alleviate this problem.

Technical Showing for Asymmetrical Operation

According to MM Docket No. 99-325 Paragraph 20, increased digital sideband operation above -14dbc is allowed if certain criteria is met:

20. A licensee desiring FM Digital ERP in excess of -14 dBc is required to calculate the station's analog F(50,10) field strength at all points on the protected 60 dBu F(50,50) contour of a potentially affected first-adjacent channel analog FM station. This calculation must be done using the station's licensed analog facilities⁴³ and the standard FCC contour prediction methodology.⁴⁴ Once the most restrictive analog F(50,10) field strength of the proponent station has been determined, the licensee will use the following table to determine the proponent station's maximum permissible FM Digital ERP:

Proponent Analog F(50,10) Field Strength at Protected Analog 60 dBu F(50,50) Contour	Maximum Permissible FM Digital ERP
51.2 dB μ and above	-14 dBc
50.7 dB μ - 51.1 dB μ	-13 dBc
50.3 dB μ - 50.6 dB μ	-12 dBc
49.6 dB μ - 50.2 dB μ	-11 dBc
49.5 dB μ or less	-10 dBc

In the case of KLVB operating on channel 258 and first adjacent station KMQV-FM (FID 1084) operating on channel 259, the KLVB 49.5dbu(F50-10) contour does not overlap the KMQV-FM 60dbu(F50-50) contour as seen in Exhibit 1-A. Therefore, according to the chart seen above, -10dbc is permissible on the KLVB upper sideband.

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Exhibit 1
Citrus Heights, CA

Interference Agreement

In the event of interference complaints, EMF agrees to discontinue operation of the KLVB experimental power level of -10dbc on the upper sideband carrier and revert back to the -14dbc power level.

Term of Operation

EMF understands this experimental operation, if granted, is valid for a 5 year period and is required to request renewal of the grant on an annual basis.

Anti-Drug Abuse Act Certification

Applicant certifies that neither licensee/permittee nor any party to the application is subject to denial of federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. Section 862.

Sincerely,

James L Travis
FCC Compliance Engineer
Educational Media Foundation
5700 W Oak Blvd
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KLVB vs KMQ-FM First Adjacent Channel Study

■ KLVB (258)
■ KMQ-FM (259)

KMQ-FM
 BMLH19930217KC
 Latitude: 37-41-15 N
 Longitude: 122-26-04 W
 ERP: 45.00 kW
 Channel: 259
 Frequency: 99.7 MHz
 AMSL Height: 434.0 m
 Elevation: 400.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

KLVB
 BLED20151119AYW
 Latitude: 38-38-53 N
 Longitude: 121-05-51 W
 ERP: 3.30 kW
 Channel: 258
 Frequency: 99.5 MHz
 AMSL Height: 316.0 m
 Elevation: 252.0 m
 Horiz. Pattern: Omni
 Vert. Pattern: No
 Prop Model: None

