

**Engineering Exhibit**  
**Multiple Ownership Study**  
prepared for  
**Ramar Communications, Inc.**

This engineering statement has been prepared on behalf of *Ramar Communications, Inc.* (“*Ramar*”), in support of its Construction Permit (“CP”) application for a new FM station on Channel 299C3 at Idalou, TX. Upon grant of the Idalou CP, *Ramar* will be the licensee or permittee of five radio stations and one television station in the region as listed below.

**Ramar Radio and Television Stations**

Call Sign	Ch/Freq.	Fac ID	Location
New (FM)	299C3	88795	Idalou, TX
KXTQ-FM	229C1	55062	Lubbock, TX
KLZK(FM)	247C2	54684	New Deal, TX
KTTU-FM	282C2	61581	Brownfield, TX
KJTV(AM)	950	55061	Lubbock, TX
KJTV-TV	35	55031	Lubbock, TX

**Radio Multiple Ownership**

The Commission established a means of evaluating radio station multiple ownership issues utilizing existing Arbitron and BIA market data for markets with established geographic boundaries and a separate “interim” means for evaluating radio station multiple ownership issues beyond established radio market geographic boundaries (FCC 03-127, released July 2, 2003).

The principal community for KTTU-FM is Brownfield, TX, which is within Terry County, TX. Terry County is not part of any Arbitron market area, therefore the interim contour overlap method will be employed herein. A “market” is defined as the area encompassed by the overlapping principal community contours of the radio stations in which an entity is proposing to have common ownership interest or attribution.

There is an area of principal community contour overlap of all of the existing and proposed *Ramar* radio stations, resulting in a market of four FM stations and one AM station. This is

considered to be a single market, as depicted in Figure 1. The market is bounded by the union of the KTXQ-FM and KJTV(AM) principal community contours.

Figure 2 and the associated Table 1 show that there are a total of 38 radio stations that provide principal community contour service to some portion of the market and are located within 92 km of the common overlap area. In a market with 38 stations, under §73.3555(a)(1)(ii) an entity may own a total of seven radio stations, four of which may be in the same service. Thus, the proposed common ownership of four FM stations and one AM station are in compliance with §73.3555(a).

### **Radio - Television Crossownership**

The radio-television crossownership rule is triggered when the Grade A contour of a television station entirely encompasses the community of license of a commonly owned AM or FM radio station. Additionally, the rule is triggered when the 60 dB $\mu$  (1 mV/m) FM station contour or the 2 mV/m AM station contour entirely encompasses the community of license of a commonly owned television station. Television Grade A contour levels are defined in §73.683, however those specifications correspond to analog stations. With the transition to digital television in 2009, full power television stations have ceased operating in analog.

The FCC has not defined a Grade A coverage contour level for digital television stations. For digital television stations, the coverage contours that have been recognized are described in §73.622(e) for DTV service and in §73.625(a) for principal community (city grade) service. Those contour levels are 41 dB $\mu$  (DTV service) and 48 dB $\mu$  (principal community) for digital UHF stations such as *Ramar's* KJTV(DT).

The lack of a Grade A contour for digital television was discussed in FCC staff action of DA10-312.<sup>1</sup> In that action, crossownership evaluation was based on the use of the §73.622(e) DTV service contour (described therein as the digital noise limited service contour, “NLSC”). The NLSC

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<sup>1</sup> See Order regarding BTC-20090518AHQ, BTCH-20090518AIO, BALH-20090518AIG, BALH-

was considered to be equivalent to the Grade B contour for analog stations and therefore would encompass a larger area than the analog Grade A contour. Thus, the DA 10-312 decision applied a worst-case analysis regarding digital television-radio common ownership. Since the proposal addressed in DA 10-312 was found to be in compliance using the NLSC, there was no need to derive or consider a contour that might be equivalent to analog Grade A.

Applying the NLSC approach to the proposal at hand, the crossownership map attached as Figure 3 shows that the NLSC (41 dB $\mu$ ) for KJTV-TV encompasses the entire principal community (Idalou, TX) associated with the new FM station, and the new Idalou FM station's 60 dB $\mu$  contour encompasses all of KJTV-TV's principal community (Lubbock).

Therefore, the radio-television crossownership rule is triggered and there would be common ownership of one television station and five radio stations. This is permitted under §73.3555(c)(2)(i), which permits ownership of one commercial TV station with seven commercial radio stations provided that at least 20 independently owned media voices remain. A separate exhibit is provided by counsel for *Ramar* indicating that the minimum number of voices is satisfied. Figure 3 supports that exhibit by including the NLSC for television stations that have NLSC overlap with KJTV-TV.

### **Study Methodology**

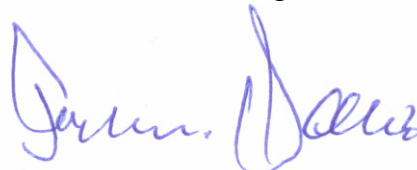
Principal community coverage contours are 70 dB $\mu$  (3.16 mV/m) for FM stations and daytime 5 mV/m for AM stations. Stations contributing to the total counts are identifiable, operating, licensed commercial and non-commercial radio stations with principal community contours covering any part of the defined market area and its transmitter site is located within 92 km from the perimeter of mutual overlap.

In preparing the attached maps and tables, pertinent station data were extracted from the Commission's engineering databases. For AM stations, these included the operating power,

radiation efficiency, directional antenna data (where appropriate), and geographic coordinates. The distances to the pertinent contours were computed using a digitized version of the Commission's Figure M-3 (estimated soil conductivity map) and a computer program which simulates the Commission's AM groundwave propagation curves at five degree azimuthal increments. For the FM and TV stations, pertinent data for determining the distances to the contour included the antenna elevation above mean sea level, geographic coordinates, effective radiated power, and, where appropriate, directional antenna patterns. The requisite contour distances were determined using digitized, 3 arc-second terrain data along radials spaced every degree from the transmitter site and an implementation of the Commission's TVFMFS computer program which simulates the FM and TV propagation curves.

### **Certification**

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.  
August 2, 2010

**Chesapeake RF Consultants, LLC**  
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Manassas, VA 20112  
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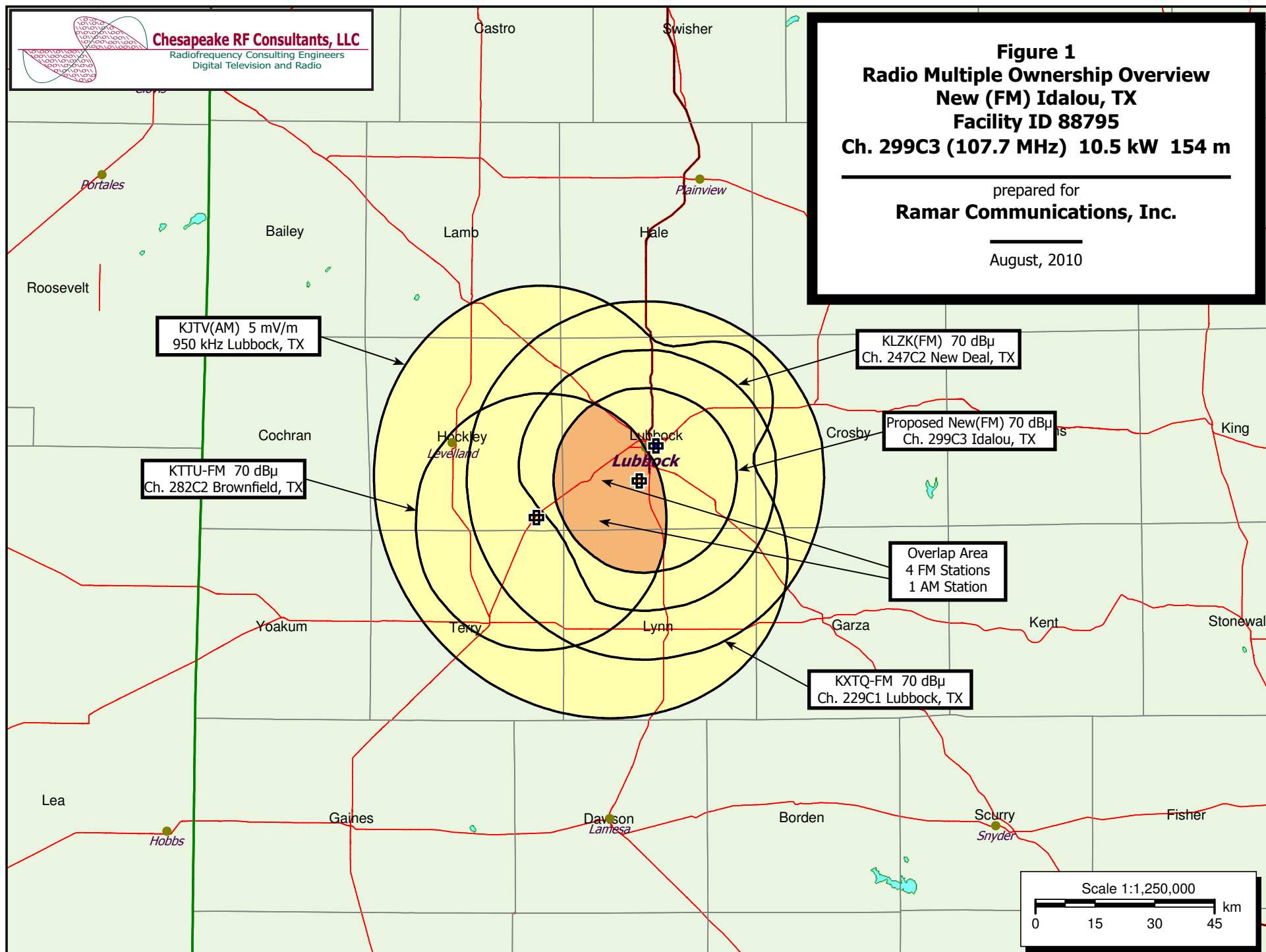
### List of Attachments

Figure 1	Radio Multiple Ownership Overview
Figure 2	Principal Community Contours
Table 1	Market Station Listing
Figure 3	Radio – Television Crossownership

**Figure 1**  
**Radio Multiple Ownership Overview**  
**New (FM) Idalou, TX**  
**Facility ID 88795**  
**Ch. 299C3 (107.7 MHz) 10.5 kW 154 m**

prepared for  
**Ramar Communications, Inc.**

August, 2010





**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

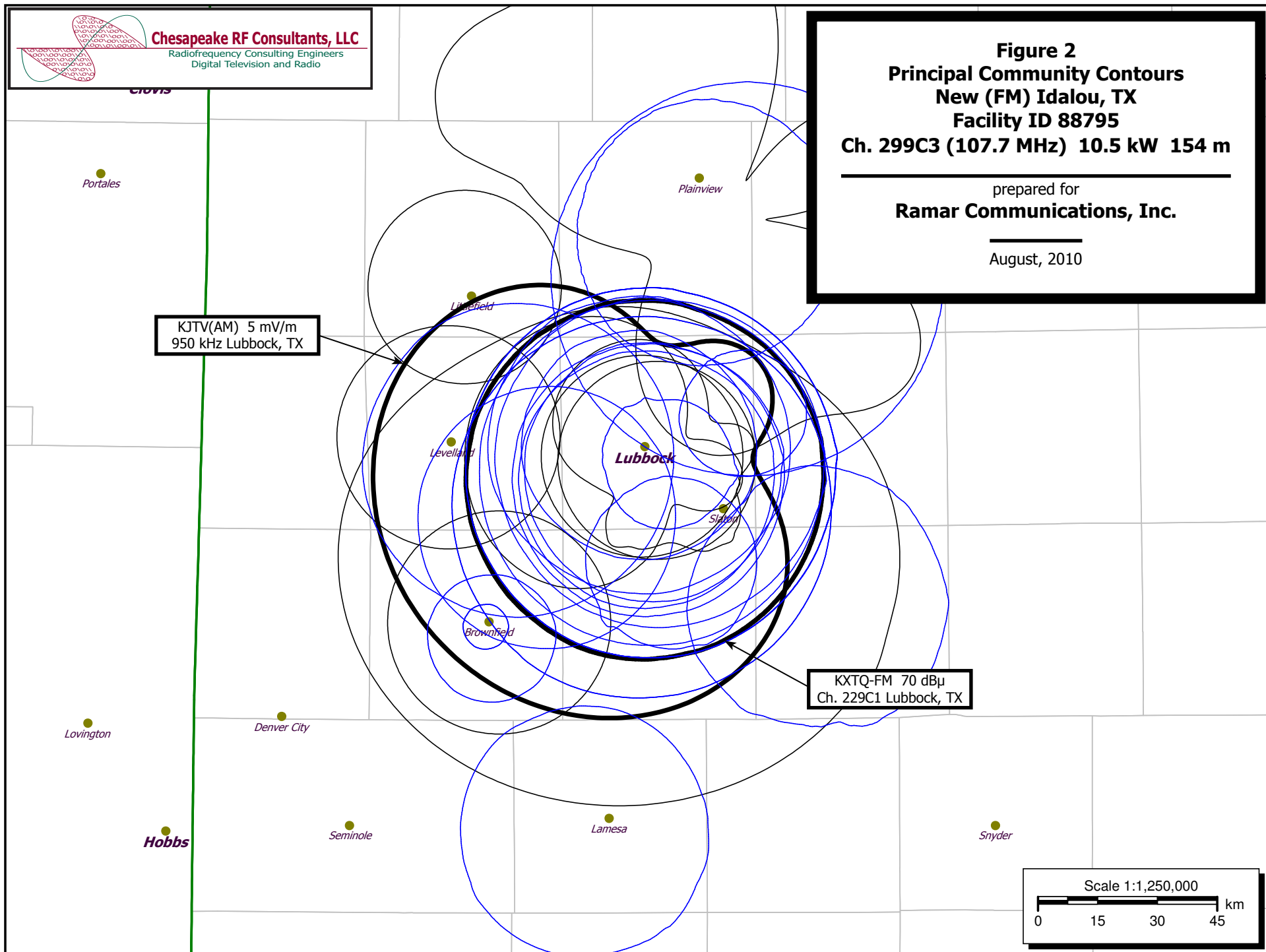
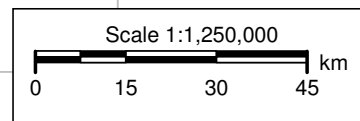
**Figure 2**  
**Principal Community Contours**  
**New (FM) Idalou, TX**  
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KJTV(AM) 5 mV/m  
950 kHz Lubbock, TX

KXTQ-FM 70 dBμ  
Ch. 229C1 Lubbock, TX



**Table 1**  
**Market Station Listing (Figure 2)**  
**Ramar Communications, Inc.**

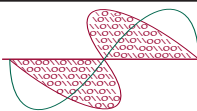
**Market definition: proposed commonly owned stations**

Count	Call Sign	Ch/freq	Fac ID	Location
1	New (FM)	299C3	88795	Idalou, TX
2	KXTQ-FM	229C1	55062	Lubbock, TX
3	KLZK(FM)	247C2	54684	New Deal, TX
4	KTTU-FM	282C2	61581	Brownfield, TX
5	KJTV(AM)	950	55061	Lubbock, TX

**Market Stations - Overlapping Principal Community Contours**

Count	Call Sign	Ch/freq	Fac ID	Location
6	KAIQ(FM)	238C1	111	Wolfforth, TX
7	KAMY(FM)	211C1	39890	Lubbock, TX
8	KAMZ(FM)	278C3	77643	Tahoka, TX
9	KBAH(FM)	213C1	85427	Plainview, TX
10	KBTE(FM)	285C1	1302	Tulia, TX
11	KBXJ(FM)	253C2	29267	Los Ybanez, TX
12	KEJS(FM)	293C2	4019	Lubbock, TX
13	KFMX-FM	233C1	60799	Lubbock, TX
14	KGCE(FM)	297C2	30104	Post, TX
15	KJAK(FM)	224C1	72773	Slaton, TX
16	KJDL-FM	287C2	30027	Levelland, TX
17	KKCL(FM)	251C2	1721	Lorenzo, TX
18	KKLU(FM)	215C3	5174	Lubbock, TX
19	KLLL-FM	242C1	36954	Lubbock, TX
20	KMLU(FM)	214A	92949	Brownfield, TX
21	KMMX(FM)	262C1	86	Tahoka, TX
22	KOHM(FM)	206C1	65354	Lubbock, TX
23	KONE(FM)	266C1	26519	Lubbock, TX
24	KPBB(FM)	203A	88314	Brownfield, TX
25	KPGA(FM)	220C1	84763	Morton, TX
26	KQBR(FM)	258C1	60800	Lubbock, TX
27	KRBL(FM)	289A	68155	Idalou, TX
28	KTXT-FM	201C2	65352	Lubbock, TX
29	KZII-FM	273C1	61150	Lubbock, TX
30	KVOP(AM)	1090	54681	Plainview, TX
31	KDAV(AM)	1590	36953	Lubbock, TX
32	KRFE(AM)	580	60804	Lubbock, TX
33	KBZO(AM)	1460	9705	Lubbock, TX
34	KFYO(AM)	790	61151	Lubbock, TX
35	KKUB(AM)	1300	7331	Brownfield, TX
36	KKAM(AM)	1340	60798	Lubbock, TX
37	KLVT(AM)	1230	30026	Levelland, TX
38	KZZN(AM)	1490	19507	Littlefield, TX

**38 Total Number of Stations in Market**



**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

**Figure 3**  
**Radio - Television Crossownership**  
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