

INTERFERENCE ANALYSIS FOR KTXL CHANNEL 22 (CONSIDERING KSPX-TV MOVE TO CHANNEL 21)

tvstudy v2.2.3 (Dxtpx3)

Database: localhost, Study: ktxl22m6a, Model: Longley-Rice

Study build station data: LMS TV 2017-09-29 (61)

Proposal: KTXL22M6A D22 DT APP SACRAMENTO, CA
File number: ktxl22m6a
Facility ID: 10205
Station data: User record
Record ID: 1455
Country: U.S.
Zone: II

User records included:

1423 KSPX21P4 D21 DT APP SACRAMENTO, CA kspx21p4 (KSPX-21 application.)

Individual records excluded:

0000027009 KSPX-TV D22 DT CP SACRAMENTO, CA BLANK0000027009 (To Channel 21.)

Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KSPX21P4	D21	DT	APP	SACRAMENTO, CA	kspx21p4	1.5 km (KSPX-21 application.)
KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	104.1
KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	105.6
KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	1.5 (Former KSPX-22 baseline facility.)
KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000027887	91.7
KNXT	D22	DT	CP	VISALIA, CA	BLANK0000028226	322.9
KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000024621	1.5

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D22

Latitude: 38 16 18.00 N (NAD83)

Longitude: 121 30 22.00 W

Height AMSL: 601.6 m

HAAT: 599.0 m

Peak ERP: 1000 kW

Antenna: DIE-TFU-19ETT/VP-R 4C170 345.0 deg

Elev Pattn: Generic

Elec Tilt: 0.8

39.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	992 kW	599.8 m	123.9 km
45.0	863	594.7	122.1
90.0	865	596.1	122.2
135.0	978	599.0	123.7
180.0	318	602.0	113.1
225.0	108	602.6	103.7
270.0	91.2	601.5	102.2
315.0	398	599.6	115.0

ERP exceeds maximum

ERP: 1000 kW ERP maximum: 328 kW

Distance to Canadian border: 1118.4 km

Distance to Mexican border: 729.8 km

**Proposal is within coordination distance of FCC monitoring station

Conditions at FCC monitoring station: Livermore CA

Bearing: 199.8 degrees Distance: 64.5 km

ERP: 109 kW HAAT: 602.5 m Field strength: 61.5 dBu, 1.2 mV/m

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:

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Bearing: 76.6 degrees Distance: 1412.9 km

Study cell size: 2.00 km
Profile point spacing: 0.50 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to kspx21p4 APP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSPX21P4	D21	DT	APP	SACRAMENTO, CA	kspx21p4	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	1.5 km
	K20JX-D	D20	DC	LIC	SACRAMENTO, CA	BLDTA20101006AAS	64.9
	KDTV-DT	D20	DT	CP	SAN FRANCISCO, CA	BLANK0000025150	91.5
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	224.5
	KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	104.7
	KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	107.1

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	38554.3	7,300,860	34752.1	5,392,251	30993.4	4,847,625	30829.9	4,840,727	0.53 0.14

Undesired		Total IX	Unique IX, before	Unique IX, after
KTXL22M6A D22 DT APP	259.5	11,624	163.5	6,898
K20JX-D D20 DC LIC	4.0	54	0.0	0
KDTV-DT D20 DT CP	122.7	15,499	15.8	10,692
KFTV-DT D21 DT CP	2096.4	262,800	1672.0	213,394
KCNZ-CD D21z DC CP	895.3	123,047	242.0	22,404
KDTV-CD D21 DC CP	1737.7	290,357	972.7	184,947

Interference to BLANK0000028256 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	104.1 km
	KDTV-DT	D20	DT	CP	SAN FRANCISCO, CA	BLANK0000025150	53.8
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	273.9
	KSPX21P4	D21	DT	APP	SACRAMENTO, CA	kspx21p4	104.7
	KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	108.9

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	7383.0	5,092,064	5925.6	4,416,722	5588.4	4,226,497	5584.4	4,225,581	0.07 0.02

Undesired		Total IX	Unique IX, before	Unique IX, after
KTXL22M6A D22 DT APP	7.9	916	4.0	916
KDTV-DT D20 DT CP	51.5	38,789	19.8	0
KFTV-DT D21 DT CP	27.8	12,566	19.8	8,667
KSPX21P4 D21 DT APP	91.1	10,847	39.6	133
KDTV-CD D21 DC CP	250.0	181,231	194.5	132,116

Interference to BLANK0000028256 CP, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	104.1 km
	KDTV-DT	D20	DT	CP	SAN FRANCISCO, CA	BLANK0000025150	53.8
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	273.9
	KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	108.9

	Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX
	7383.0	5,092,064	5925.6	4,416,722	5628.0	4,226,630	5624.0	4,225,714	0.07 0.02

Undesired		Total IX	Unique IX, before	Unique IX, after
KTXL22M6A D22 DT APP	7.9	916	4.0	916
KDTV-DT D20 DT CP	51.5	38,789	27.8	194
KFTV-DT D21 DT CP	27.8	12,566	19.8	8,667
KDTV-CD D21 DC CP	250.0	181,231	222.3	142,636

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Interference to BLANK0000025110 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	105.6 km
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	330.2
	KSPX21P4	D21	DT	APP	SACRAMENTO, CA	kspx21p4	107.1
	KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	108.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10765.0		786,252		8253.8		578,221	0.00
				7999.8		529,333	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		8.1		12		0.0	0
KFTV-DT D21 DT CP		4.0		0		0.0	0
KSPX21P4 D21 DT APP		135.1		14,986		51.9	217
KCNZ-CD D21z DC CP		194.1		48,659		118.9	33,902

Interference to BLANK0000025110 CP, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KDTV-CD	D21	DC	CP	SANTA ROSA, CA	BLANK0000025110	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	105.6 km
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	330.2
	KCNZ-CD	D21z	DC	CP	SAN FRANCISCO, CA	BLANK0000028256	108.9
	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	107.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
10765.0		786,252		8253.8		8051.6	0.00
				578,221		529,550	0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		8.1		12		0.0	0
KFTV-DT D21 DT CP		4.0		0		4.0	0
KCNZ-CD D21z DC CP		194.1		48,659		190.1	48,659
KSPX-TV D22 DT BL		8.1		12		0.0	0

Interference to BLANK0000027887 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000027887	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	91.7 km
	KSPX21P4	D21	DT	APP	SACRAMENTO, CA	kspx21p4	91.5
	KNXT	D22	DT	CP	VISALIA, CA	BLANK0000028226	301.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
8024.7		5,122,152		5444.6		5389.0	0.95
				4,430,943		4,420,272	0.24
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		55.6		10,671		51.6	10,671
KNXT D22 DT CP		4.0		0		0.0	0

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Interference to BLANK0000027887 CP, scenario 2

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000027887	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	91.7 km
	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	91.4
	KNXT	D22	DT	CP	VISALIA, CA	BLANK0000028226	301.4
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
8024.7 5,122,152		5444.6 4,430,943		5420.7 4,425,673		5389.0 4,420,272	0.59 0.12
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		55.6 10,671				31.7 5,401	
KSPX-TV D22 DT BL		23.9 5,270		19.9 5,270		0.0 0	
KNXT D22 DT CP		4.0 0		0.0 0		0.0 0	

Interference to BLANK0000028226 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNXT	D22	DT	CP	VISALIA, CA	BLANK0000028226	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	322.9 km
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	102.1
	KPMR	D21	DT	LIC	SANTA BARBARA, CA	BLCDT20110607ABB	220.7
	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	321.5
	KTFF-DT	D23	DT	CP	PORTERVILLE, CA	BLANK0000025094	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
34695.7 2,180,045		30361.8 2,158,197		30077.6 2,151,712		30073.6 2,151,677	0.01 0.00
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		100.0 4,086				4.0 35	
KFTV-DT D21 DT CP		200.1 2,575		176.2 2,434		172.1 2,434	
KSPX-TV D22 DT BL		100.0 4,051		76.0 3,910		4.0 0	
KTFF-DT D23 DT CP		8.0 0		8.0 0		4.0 0	

Interference to BLANK0000024621 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KQCA	D23	DT	CP	STOCKTON, CA	BLANK0000024621	
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	1.5 km
	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	0.0
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000027887	91.5
	KTFF-DT	D23	DT	CP	PORTERVILLE, CA	BLANK0000025094	321.5
	KRDT-CD	D23	DC	LIC	REDDING, CA	BLDTA20110620AEA	279.8
	KMAX-TV	D24	DT	CP	SACRAMENTO, CA	BLANK0000026890	2.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41037.5 10,077,891		35963.9 6,422,799		35318.5 6,390,267		35222.4 6,385,657	0.27 0.07
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A D22 DT APP		148.1 9,619				96.1 4,610	
KSPX-TV D22 DT BL		4.0 0		0.0 0		0.0 0	
KAXT-CD D22 DC CP		8.0 173		8.0 173		8.0 173	
KTFF-DT D23 DT CP		434.0 25,720		434.0 25,720		434.0 25,720	
KRDT-CD D23 DC LIC		47.9 87		39.9 87		39.9 87	
KMAX-TV D24 DT CP		163.5 6,552		151.5 6,552		111.6 1,543	

INTERFERENCE ANALYSIS FOR KTXL CHANNEL 22 (CONSIDERING KSPX-TV MOVE TO CHANNEL 21)

Interference to BLANK0000024621 CP, scenario 2

Desired:	Call KQCA	Chan D23	Svc DT	Status CP	City, State STOCKTON, CA	File Number BLANK0000024621	Distance
Undesireds:	KTXL22M6A	D22	DT	APP	SACRAMENTO, CA	ktxl22m6a	1.5 km
	KSPX-TV	D22	DT	BL	SACRAMENTO, CA	DTVBL52953	0.0
	KAXT-CD	D22	DC	CP	SAN FRANCISCO, SAN JO, CA	BLANK0000027887	91.5
	KTFF-DT	D23	DT	CP	PORTERVILLE, CA	BLANK0000025094	321.5
	KRDT-CD	D23	DC	LIC	REDDING, CA	BLDTA20110620AEA	279.8
	KMAX-TV	D24	DT	APP	SACRAMENTO, CA	BLANK0000029627	2.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
41037.5	10,077,891	35963.9	6,422,799	35298.6	6,388,448	35202.4 6,383,838	0.27 0.07
Undesired		Total IX		Unique IX, before		Unique IX, after	
KTXL22M6A	D22 DT APP	148.1	9,619			96.1 4,610	
KSPX-TV	D22 DT BL	4.0	0	0.0	0	0.0 0	
KAXT-CD	D22 DC CP	8.0	173	8.0	173	8.0 173	
KTFF-DT	D23 DT CP	434.0	25,720	434.0	25,720	434.0 25,720	
KRDT-CD	D23 DC LIC	47.9	87	39.9	87	39.9 87	
KMAX-TV	D24 DT APP	183.5	8,371	171.5	8,371	131.6 3,362	
