

KPSV-FM – Tulare, CA

Application for Engineering STA

Updated - October 13, 2020

Site location & technical parameters

Coordinates (NAD 27): 36 12 26 N, 119 20 15 W

AGL : 13 m

AMSL: 101 m

HAAT (Globe): 11 m

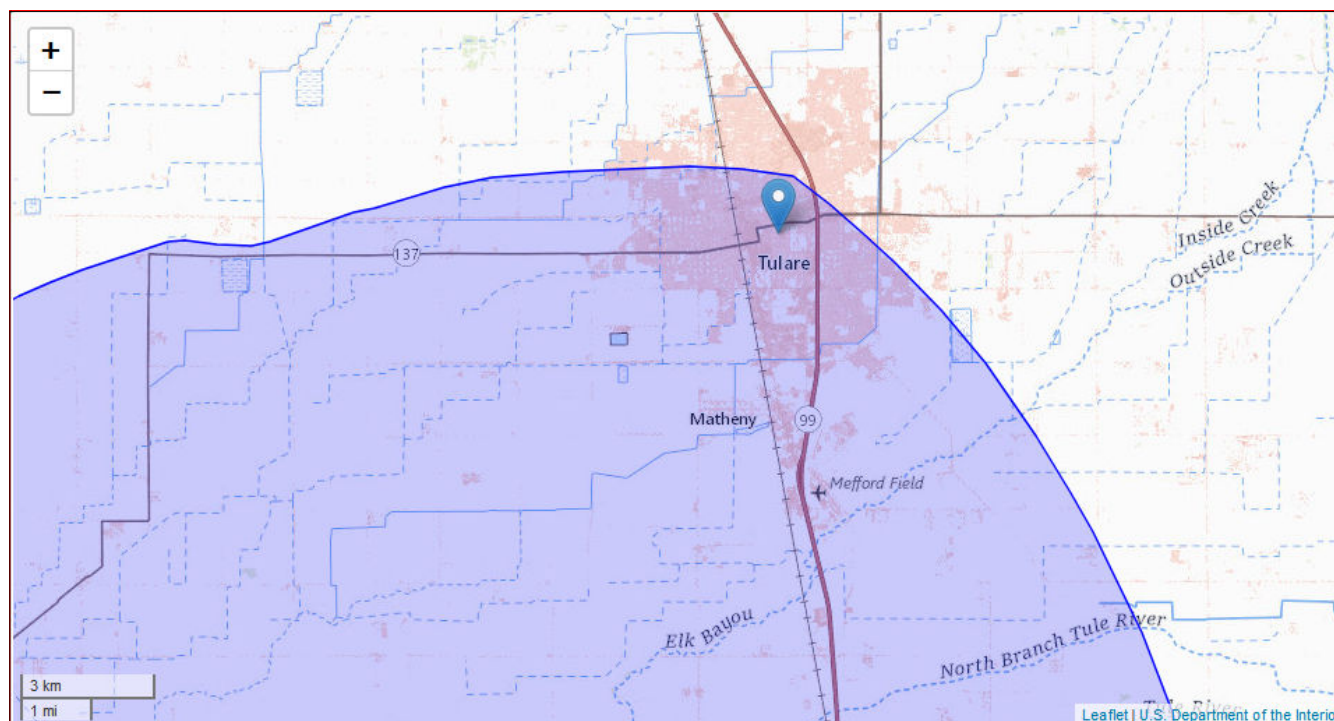
Power: 30 w ERP

Terrain database: **FCC 30 Meter Terrain**

Antenna: Samco SAM-137

Horizontally Polarized

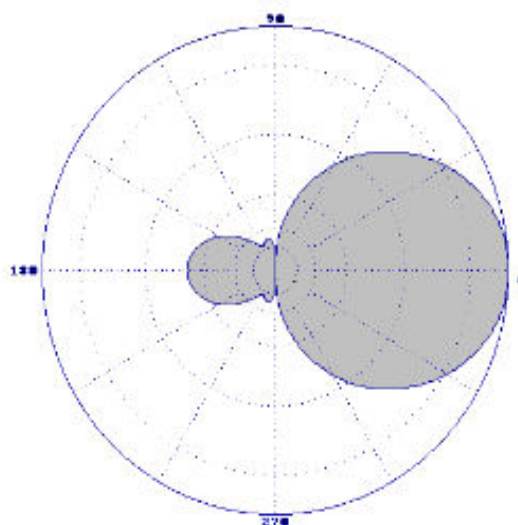
Temporary authorization to colocate antenna at main studio contained within 60 dBu contour.
Directional yagi antenna (SAM 137) will be oriented southwest, at 221 degrees of true north.



Technical Data - Antenna

:
Samco SAM-137
Horizontally Polarized

SAM-137 3 element YAGI antenna



ELECTRICAL DATA

Frequency	88/108 MHz
Bandwidth	2.5 MHz
VSWR	1.5 to 1 or less
Impedance	50 ohms
Forward Gain	7 dB
Forward Gain (Stack 2)	10 dB
Front to Back Ratio	20 db+
Polarization	Vertical or Horizontal
Lightning Protection	Direct Ground
Power Handling	300 Watts
Termination	Type N Female

MECHANICAL DATA

Materials	Aluminum
Boom	1" Reinforced Tube
Elements	5/8" Tube
Driven Element	5/8" Tube
Wind Survival	100 mph
Permanent Mounting	V-Bolts to fit from 1" pipe up to 2" pipe
Overall length	40"
Shipping Information	Weight 6.0 lbs.

Antenna Field Values – Pre-rotated to 221 degrees

<u>Azi</u>	<u>Field</u>	<u>Azi</u>	<u>Field</u>	<u>Azi</u>	<u>Field</u>	<u>Azi</u>	<u>Field</u>	<u>Azi</u>	<u>Field</u>
0	0.179	90	0.179	270	0.500	180	0.658	270	0.500
10	0.179	100	0.179	280	0.398	190	0.810	280	0.398
20	0.179	110	0.179	290	0.317	200	0.934	290	0.317
30	0.179	120	0.185	300	0.252	210	0.990	300	0.252
40	0.179	130	0.212	310	0.205	220	1.000	310	0.205
50	0.179	140	0.263	320	0.183	230	0.984	320	0.183
60	0.179	150	0.331	330	0.179	240	0.914	330	0.179
70	0.179	160	0.416	340	0.179	250	0.780	340	0.179
80	0.179	170	0.524	350	0.179	260	0.629	350	0.179

Antenna – as rotated to 221 degrees

<u>Azi</u>	<u>Field</u>	<u>dbk</u>	<u>kW</u>
000	0.179	-28.411	0.001
010	0.179	-28.411	0.001
020	0.179	-28.411	0.001
030	0.179	-28.411	0.001
040	0.179	-28.411	0.001
050	0.179	-28.411	0.001
060	0.179	-28.411	0.001
070	0.179	-28.411	0.001
080	0.179	-28.411	0.001
090	0.179	-28.411	0.001
100	0.179	-28.411	0.001
110	0.179	-28.411	0.001
120	0.185	-28.124	0.002
130	0.212	-26.941	0.002
140	0.263	-25.069	0.003
150	0.331	-23.071	0.005
160	0.416	-21.086	0.008
170	0.524	-19.081	0.012
180	0.658	-17.103	0.019
190	0.810	-15.298	0.030
200	0.934	-14.061	0.039
210	0.990	-13.555	0.044
220	1.000	-13.468	0.045
230	0.984	-13.608	0.044
240	0.914	-14.249	0.038
250	0.780	-15.626	0.027
260	0.629	-17.495	0.018
270	0.500	-19.488	0.011
280	0.398	-21.470	0.007
290	0.317	-23.447	0.005
300	0.252	-25.440	0.003
310	0.205	-27.233	0.002
320	0.183	-28.219	0.002
330	0.179	-28.411	0.001
340	0.179	-28.411	0.001
350	0.179	-28.411	0.001

