

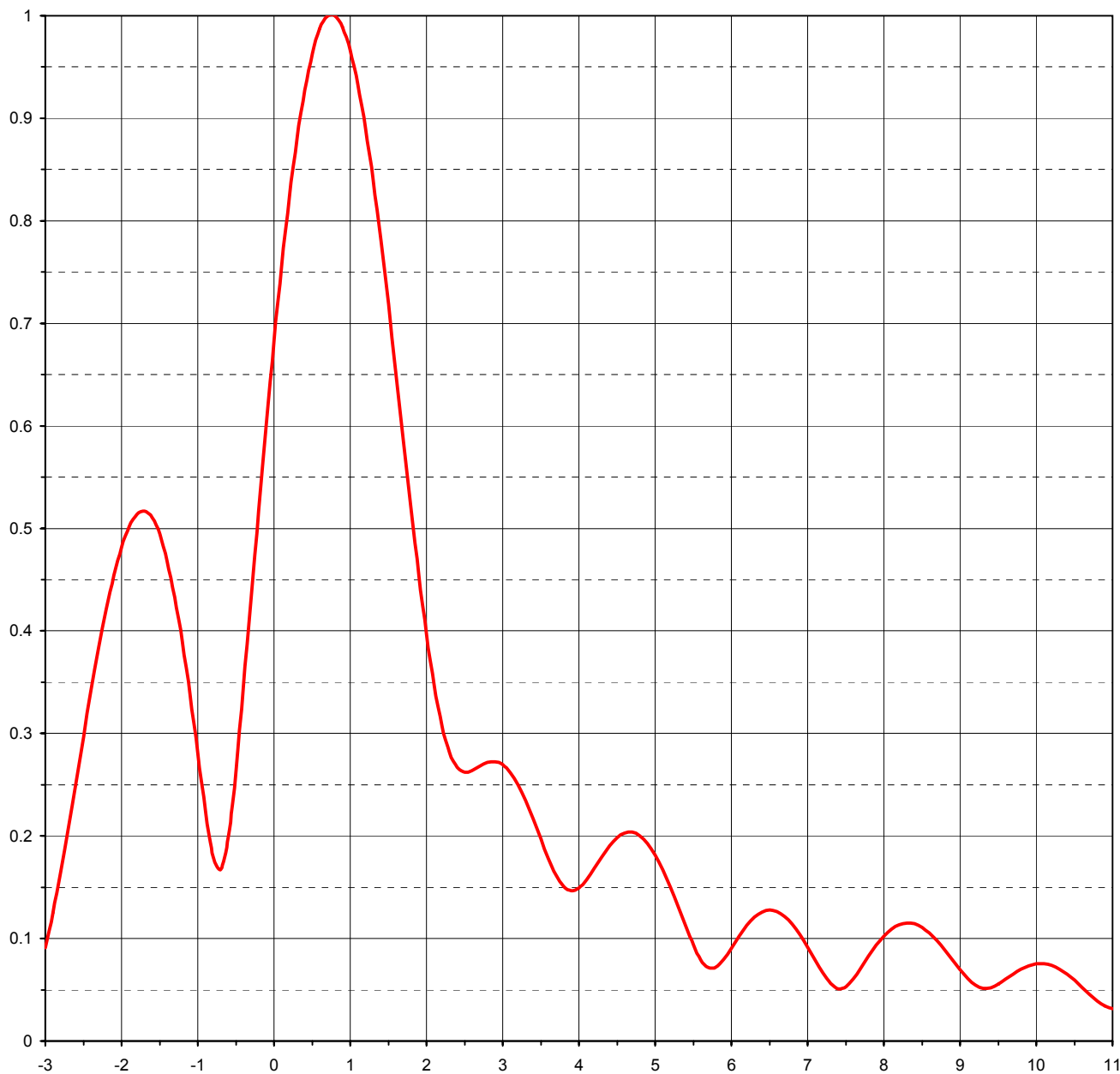


Proposal Number **EM-070918-1**
Date **18-Sep-07**
Call Letters **KCNS-DT** Channel **39**
Location **San Francisco, CA**
Customer
Antenna Type **TUM-C5SP-14/60H-2-T-R**

ELEVATION PATTERN

RMS Gain at Main Lobe **25.80 (14.12 dB)**
RMS Gain at Horizontal **12.00 (10.79 dB)**
Calculated / Measured **Calculated**

Beam Tilt **0.75 deg**
Frequency **623.00 MHz**
Drawing # **14U270075**



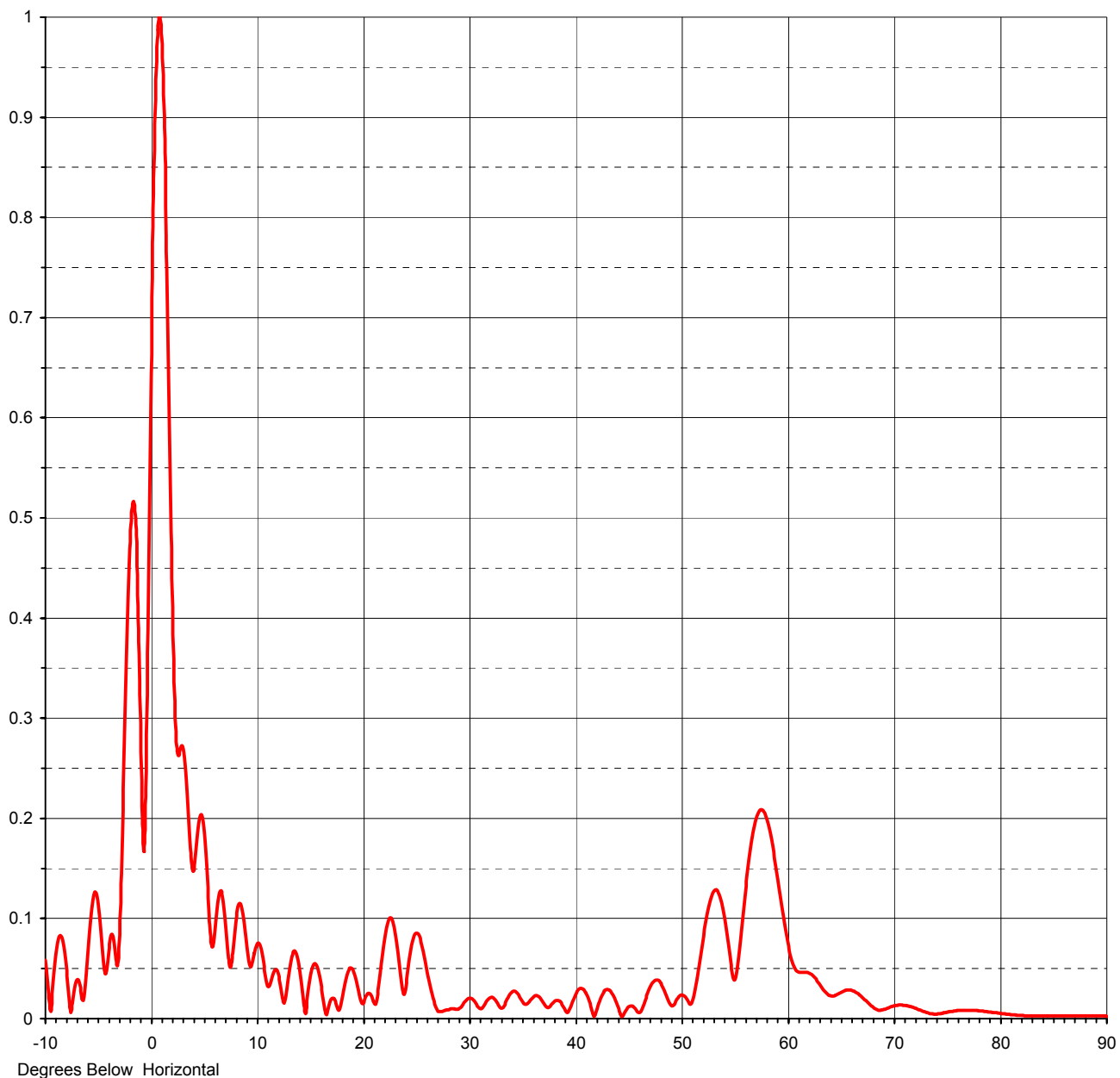
Degrees Below Horizontal



Proposal Number	EM-070918-1		
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Call Letters	KCNS-DT	Channel	39
Location	San Francisco, CA		
Customer			
Antenna Type	TUM-C5SP-14/60H-2-T-R		

ELEVATION PATTERN

RMS Gain at Main Lobe	25.80 (14.12 dB)	Beam Tilt	0.75 deg
RMS Gain at Horizontal	12.00 (10.79 dB)	Frequency	623.00 MHz
Calculated / Measured	Calculated	Drawing #	14U270075-90





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Antenna Type **TUM-C5SP-14/60H-2-T-R**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **14U270075-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.058	2.4	0.267	10.6	0.059	30.5	0.018	51.0	0.016	71.5	0.012
-9.5	0.007	2.6	0.264	10.8	0.045	31.0	0.010	51.5	0.040	72.0	0.010
-9.0	0.064	2.8	0.272	11.0	0.034	31.5	0.014	52.0	0.075	72.5	0.008
-8.5	0.082	3.0	0.269	11.5	0.043	32.0	0.021	52.5	0.107	73.0	0.006
-8.0	0.048	3.2	0.250	12.0	0.046	32.5	0.019	53.0	0.126	73.5	0.005
-7.5	0.011	3.4	0.216	12.5	0.018	33.0	0.011	53.5	0.126	74.0	0.005
-7.0	0.039	3.6	0.178	13.0	0.042	33.5	0.017	54.0	0.106	74.5	0.005
-6.5	0.019	3.8	0.151	13.5	0.067	34.0	0.026	54.5	0.070	75.0	0.007
-6.0	0.066	4.0	0.149	14.0	0.053	34.5	0.026	55.0	0.039	75.5	0.007
-5.5	0.121	4.2	0.168	14.5	0.009	35.0	0.018	55.5	0.070	76.0	0.008
-5.0	0.114	4.4	0.190	15.0	0.038	35.5	0.015	56.0	0.122	76.5	0.008
-4.5	0.053	4.6	0.203	15.5	0.055	36.0	0.021	56.5	0.168	77.0	0.008
-4.0	0.071	4.8	0.200	16.0	0.038	36.5	0.023	57.0	0.198	77.5	0.008
-3.5	0.074	5.0	0.182	16.5	0.005	37.0	0.016	57.5	0.209	78.0	0.008
-3.0	0.091	5.2	0.150	17.0	0.019	37.5	0.011	58.0	0.202	78.5	0.007
-2.8	0.165	5.4	0.112	17.5	0.015	38.0	0.016	58.5	0.179	79.0	0.007
-2.6	0.252	5.6	0.079	18.0	0.017	38.5	0.018	59.0	0.147	79.5	0.006
-2.4	0.341	5.8	0.072	18.5	0.043	39.0	0.010	59.5	0.111	80.0	0.005
-2.2	0.421	6.0	0.091	19.0	0.050	39.5	0.010	60.0	0.078	80.5	0.005
-2.0	0.482	6.2	0.113	19.5	0.032	40.0	0.023	60.5	0.056	81.0	0.004
-1.8	0.513	6.4	0.126	20.0	0.015	40.5	0.030	61.0	0.047	81.5	0.004
-1.6	0.510	6.6	0.126	20.5	0.025	41.0	0.026	61.5	0.046	82.0	0.003
-1.4	0.468	6.8	0.114	21.0	0.017	41.5	0.012	62.0	0.046	82.5	0.003
-1.2	0.389	7.0	0.092	21.5	0.032	42.0	0.007	62.5	0.042	83.0	0.003
-1.0	0.281	7.2	0.066	22.0	0.075	42.5	0.023	63.0	0.035	83.5	0.003
-0.8	0.180	7.4	0.051	22.5	0.100	43.0	0.029	63.5	0.027	84.0	0.003
-0.6	0.200	7.6	0.061	23.0	0.090	43.5	0.025	64.0	0.023	84.5	0.003
-0.4	0.345	7.8	0.083	23.5	0.049	44.0	0.013	64.5	0.024	85.0	0.003
-0.2	0.517	8.0	0.102	24.0	0.028	44.5	0.002	65.0	0.027	85.5	0.003
0.0	0.683	8.2	0.113	24.5	0.067	45.0	0.011	65.5	0.029	86.0	0.003
0.2	0.823	8.4	0.114	25.0	0.086	45.5	0.012	66.0	0.028	86.5	0.003
0.4	0.927	8.6	0.105	25.5	0.077	46.0	0.006	66.5	0.025	87.0	0.003
0.6	0.987	8.8	0.089	26.0	0.051	46.5	0.015	67.0	0.021	87.5	0.003
0.8	1.000	9.0	0.070	26.5	0.025	47.0	0.030	67.5	0.016	88.0	0.003
1.0	0.966	9.2	0.055	27.0	0.009	47.5	0.038	68.0	0.011	88.5	0.003
1.2	0.890	9.4	0.052	27.5	0.007	48.0	0.037	68.5	0.009	89.0	0.002
1.4	0.781	9.6	0.060	28.0	0.009	48.5	0.026	69.0	0.009	89.5	0.002
1.6	0.652	9.8	0.065	28.5	0.010	49.0	0.014	69.5	0.011	90.0	0.002
1.8	0.518	10.0	0.073	29.0	0.010	49.5	0.017	70.0	0.013		
2.0	0.397	10.2	0.075	29.5	0.015	50.0	0.023	70.5	0.014		
2.2	0.308	10.4	0.070	30.0	0.020	50.5	0.020	71.0	0.013		