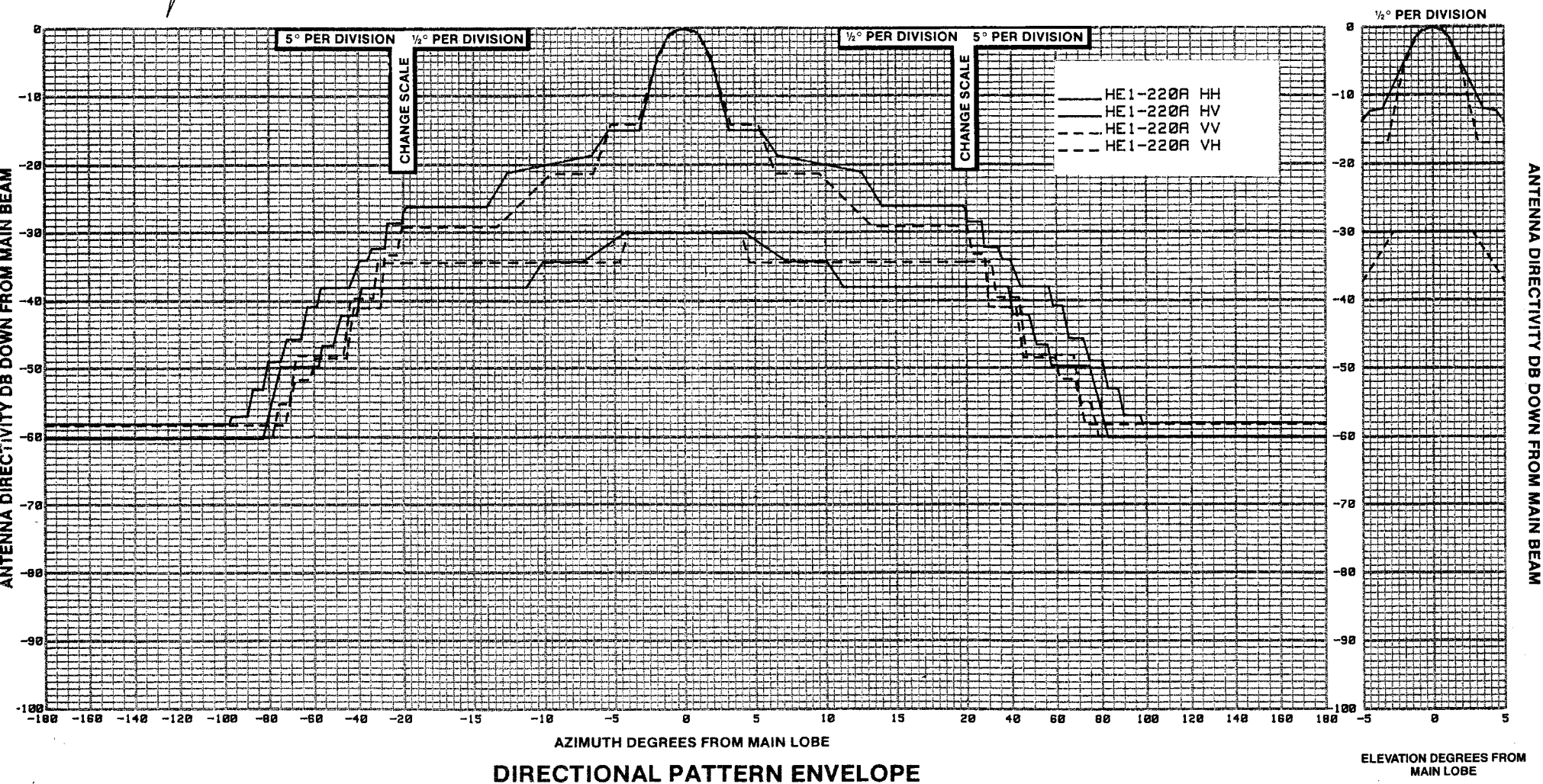


 **gabriel electronics**
INCORPORATED
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Mfg. ID#	84912G	DIRECTIONAL PATTERN NO.: 4912
ANTENNA MODELS APPLICABLE:	HE1-220A	REV.
GAIN: 34.0 dBi AT 22.400 GHZ, FREQUENCY: 21.200-23.600 GHZ.		
POLARIZATION: HORIZONTAL AND VERTICAL		
PATTERN IS:	<input checked="" type="checkbox"/> SYMMETRICAL	<input type="checkbox"/> ASYMMETRICAL
THIS ANTENNA MEETS:		





HH	59	HV	27	VV	39	VH	23	ELHH	11
-180.0	-58.0	-180.0	-60.2	-180.0	-58.2	-180.0	-60.0	-5.0	-13.8
-98.1	-58.0	-82.8	-60.1	-72.7	-58.2	-78.5	-60.0	-4.5	-12.3
-97.0	-56.9	-74.6	-49.6	-68.1	-51.6	-75.3	-55.1	-3.5	-11.9
-89.8	-56.9	-57.7	-49.5	-61.6	-51.5	-70.8	-55.0	-1.2	-1.6
-87.3	-53.0	-56.1	-46.5	-59.5	-48.4	-67.6	-48.0	-.9	-.7
-82.8	-52.9	-51.2	-46.5	-45.3	-48.3	-46.6	-47.9	0.0	0.0
-80.3	-48.9	-47.7	-42.1	-42.1	-41.0	-43.3	-39.5	.9	-.7
-74.6	-48.8	-40.8	-42.0	-30.0	-40.9	-33.3	-39.5	1.2	-1.6
-71.8	-45.6	-38.5	-38.0	-28.1	-33.2	-31.2	-34.3	3.5	-11.9
-65.7	-45.5	-11.3	-38.0	-22.9	-33.2	-4.6	-34.3	4.5	-12.3
-62.7	-40.8	-10.1	-34.2	-20.4	-29.1	-4.0	-30.0	5.0	-13.8
-58.6	-40.8	-7.2	-34.2	-13.3	-29.1	0.0	-30.0	ELHV	3
-56.6	-38.0	-4.3	-30.0	-9.5	-21.3	4.0	-30.0	-5.0	-30.0
-44.0	-37.9	0.0	-30.0	-6.5	-21.3	4.6	-34.3	0.0	-30.0
-39.4	-34.0	4.3	-30.0	-5.2	-14.0	31.2	-34.3	5.0	-30.0
-36.0	-34.0	7.2	-34.2	-3.3	-14.0	33.3	-39.5	ELVV	11
-33.9	-32.2	10.1	-34.2	-2.1	-5.6	43.3	-39.5	-5.0	-16.9
-28.0	-32.2	11.3	-38.0	-1.1	-1.3	46.6	-47.9	-3.2	-16.9
-26.9	-28.5	38.5	-38.0	-.8	-.5	67.6	-48.0	-2.1	-6.1
-20.5	-28.5	40.8	-42.0	0.0	0.0	70.8	-55.0	-1.3	-2.3
-19.8	-26.1	47.7	-42.1	.8	-.5	75.3	-55.1	-.7	-.3
-14.0	-26.1	51.2	-46.5	1.1	-1.3	78.5	-60.0	0.0	0.0
-12.6	-21.1	56.1	-46.5	2.1	-5.6	180.0	-60.0	.7	-.3
-6.6	-18.6	57.7	-49.5	3.3	-14.0			1.3	-2.3
-5.4	-14.9	74.6	-49.6	5.2	-14.0			2.1	-6.1
-3.2	-14.9	82.8	-60.1	6.5	-21.3			3.2	-16.9
-1.9	-4.2	180.0	-60.2	9.5	-21.3			5.0	-16.9
-1.1	-.9			13.3	-29.1			ELVH	5
-.7	-.3			20.4	-29.1			-5.0	-37.3
0.0	0.0			22.9	-33.2			-2.8	-30.0
.7	-.3			28.1	-33.2			0.0	-30.0
1.1	-.9			30.0	-40.9			2.8	-30.0
1.9	-4.2			42.1	-41.0			5.0	-37.3
3.2	-14.9			45.3	-48.3				
5.4	-14.9			59.5	-48.4				
6.6	-18.6			61.6	-51.5				
12.6	-21.1			68.1	-51.6				
14.0	-26.1			72.7	-58.2				
19.8	-26.1			180.0	-58.2				
20.5	-28.5								
26.9	-28.5								
28.0	-32.2								
33.9	-32.2								
36.0	-34.0								
39.4	-34.0								
44.0	-37.9								
56.6	-38.0								
58.6	-40.8								
62.7	-40.8								
65.7	-45.5								
71.8	-45.6								
74.6	-48.8								
80.3	-48.9								
82.8	-52.9								
87.3	-53.0								
89.8	-56.9								
97.0	-56.9								
98.1	-58.0								
180.0	-58.0								

The directional pattern envelope is drawn on the reverse side by connecting the above breakpoints with straight lines.

HH = Horizontal response to a horizontal signal
 HV = Horizontal response to a vertical signal
 VV = Vertical response to a vertical signal
 VH = Vertical response to a horizontal signal