



Declaration of Azimuth Unlimited, LLC

- 1) Azimuth Unlimited, LLC designs, manufactures, and resells/distributes stabilized VSAT terminals, which are then used by our customers for their ESV networks.
- 2) This declaration is for 47 C.F.R §25.222 for blanket licensing of ESV antenna operating in Ku-band. It covers the requirement of §25.222(a)(1) and the rest of requirement in §25.222 are left to the applicant who operates ESV networks with our product.
- 3) Azimuth Unlimited hereby declares the antenna listed below will meet §25.222(a)(1)(i) with the specified operating condition with demonstration of (b)(1)(i) and (b)(1)(iii).

Model	Operating condition
0.85 Meter Ku-band, Model AZU-08	N=1 Max. input power spectral density = -19.2 dBW/4KHz

- 4) Azimuth Unlimited hereby declares a pointing error will be less than or equal to 0.2 degree between the orbital location of the target satellite and the axis of the main lobe of the antenna referenced in paragraph 3) above, thus meeting the requirements of § 25.222(a)(1)(ii).
- 5) Azimuth Unlimited hereby declares all emission from the antenna referenced in paragraph 3) above will automatically be ceased within 100 milliseconds if the pointing error exceeds 0.5 degrees for any reason and will not be resumed until the error is less than or equal to 0.2 degree, thus meeting the requirements of § 25.222(a)(1)(iii).

Date: 10-09-2010

By: _____
Jongsoo Kim
Chief Executive Officer
Azimuth Unlimited, LLC

EIRPsd Data Table for AZU-08(85cm)
 Co-pol Azimuth,
 From 0 to 10 deg in 0.1 deg step
 From 10 to 180 deg in 5 deg step
 Power density input = -19.2 dBW/4KHz
 Test Freq = 14.25GHz

Off-Axis Angle	Off-axis EIRPsd	25.222 Mask	Over Mask
Degrees	dBW/4KHz	dBW/4KHz	dB
180	-47.0	-14.0	-33.0
175	-34.5	-14.0	-20.5
170	-38.5	-14.0	-24.5
165	-40.0	-14.0	-26.0
160	-51.1	-14.0	-37.1
155	-39.0	-14.0	-25.0
150	-40.9	-14.0	-26.9
145	-34.3	-14.0	-20.3
140	-39.1	-14.0	-25.1
135	-46.0	-14.0	-32.0
130	-46.6	-14.0	-32.6
125	-43.8	-14.0	-29.8
120	-39.7	-14.0	-25.7
115	-35.4	-14.0	-21.4
110	-39.5	-14.0	-25.5
105	-38.2	-14.0	-24.2
100	-38.5	-14.0	-24.5
95	-37.1	-14.0	-23.1
90	-44.9	-14.0	-30.9
85	-48.9	-24.0	-24.9
80	-45.9	-24.0	-21.9
75	-39.0	-24.0	-15.0
70	-33.2	-24.0	-9.2
65	-36.9	-24.0	-12.9
60	-38.0	-24.0	-14.0
55	-41.3	-24.0	-17.3
50	-41.7	-24.0	-17.7
45	-33.0	-23.3	-9.7
40	-34.5	-22.1	-12.4
35	-38.5	-20.6	-17.9
30	-28.5	-18.9	-9.5
25	-29.3	-16.9	-12.3
20	-35.9	-14.5	-21.4
15	-23.8	-11.4	-12.4
10.0	-16.3	-7.0	-9.3
9.9	-17.3	-6.9	-10.4
9.8	-18.3	-6.8	-11.5
9.7	-19.2	-6.7	-12.5
9.6	-19.6	-6.6	-13.0
9.5	-20.0	-6.4	-13.5
9.4	-20.2	-6.3	-13.9

9.3	-20.3	-6.2	-14.1
9.2	-20.4	-6.0	-14.4
9.1	-21.0	-6.0	-15.0
9.0	-21.2	-6.0	-15.2
8.9	-21.3	-6.0	-15.3
8.8	-21.3	-6.0	-15.3
8.7	-21.0	-6.0	-15.0
8.6	-20.4	-6.0	-14.4
8.5	-19.8	-6.0	-13.8
8.4	-19.2	-6.0	-13.2
8.3	-18.7	-6.0	-12.7
8.2	-18.3	-6.0	-12.3
8.1	-18.1	-6.0	-12.1
8.0	-18.4	-6.0	-12.4
7.9	-18.7	-6.0	-12.7
7.8	-19.1	-6.0	-13.1
7.7	-18.8	-6.0	-12.8
7.6	-18.5	-6.0	-12.5
7.5	-17.6	-6.0	-11.6
7.4	-16.0	-6.0	-10.0
7.3	-14.5	-6.0	-8.5
7.2	-13.0	-6.0	-7.0
7.1	-11.6	-6.0	-5.6
7.0	-9.2	-6.1	-3.1
6.9	-8.3	-6.0	-2.3
6.8	-7.5	-5.8	-1.7
6.7	-6.9	-5.7	-1.2
6.6	-6.3	-5.5	-0.8
6.5	-5.9	-5.3	-0.6
6.4	-5.6	-5.2	-0.4
6.3	-5.3	-5.0	-0.3
6.2	-5.2	-4.8	-0.3
6.1	-4.9	-4.6	-0.2
6.0	-4.8	-4.5	-0.3
5.9	-4.6	-4.3	-0.4
5.8	-4.5	-4.1	-0.4
5.7	-4.3	-3.9	-0.4
5.6	-4.1	-3.7	-0.4
5.5	-3.9	-3.5	-0.4
5.4	-3.7	-3.3	-0.4
5.3	-3.6	-3.1	-0.5
5.2	-3.4	-2.9	-0.5
5.1	-3.4	-2.7	-0.7
5.0	-3.4	-2.5	-1.0
4.9	-3.7	-2.3	-1.4
4.8	-3.9	-2.0	-1.9
4.7	-4.3	-1.8	-2.5
4.6	-4.8	-1.6	-3.2
4.5	-5.3	-1.3	-4.0
4.4	-6.0	-1.1	-4.9

4.3	-6.7	-0.8	-5.9
4.2	-8.1	-0.6	-7.6
4.1	-8.8	-0.3	-8.5
4.0	-9.2	-0.1	-9.2
3.9	-9.3	0.2	-9.5
3.8	-9.3	0.5	-9.8
3.7	-8.6	0.8	-9.4
3.6	-7.8	1.1	-8.9
3.5	-6.8	1.4	-8.2
3.4	-5.5	1.7	-7.2
3.3	-4.2	2.0	-6.2
3.2	-2.9	2.4	-5.2
3.1	-0.3	2.7	-3.0
3.0	0.7	3.1	-2.4
2.9	1.7	3.4	-1.7
2.8	2.6	3.8	-1.2
2.7	3.3	4.2	-1.0
2.6	3.9	4.6	-0.7
2.5	4.3	5.1	-0.8
2.4	4.5	5.5	-1.0
2.3	4.7	6.0	-1.2
2.2	4.3	6.4	-2.1
2.1	3.9	6.9	-3.0
2.0	3.3	7.5	-4.1
1.9	2.7	8.0	-5.3
1.8	2.9	8.6	-5.8
1.7	3.3	9.2	-6.0
1.6	4.1	9.9	-5.8
1.5	5.4	10.6	-5.2
1.4	7.1		
1.3	8.8		
1.2	12.0		
1.1	13.3		
1.0	14.6		
0.9	15.6		
0.8	16.5		
0.7	17.4		
0.6	18.0		
0.5	18.6		
0.4	19.2		
0.3	19.5		
0.2	20.1		
0.1	20.3		
0.0	20.4		

EIRPsd Data Table for AZU-08(85cm)
 Co-pol Elevation
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 From 10 to 180 deg in 5 deg step
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170	-46.0	-14.0	-32.0
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155	-41.0	-14.0	-27.0
150	-51.1	-14.0	-37.1
145	-45.0	-14.0	-31.0
140	-47.0	-14.0	-33.0
135	-45.0	-14.0	-31.0
130	-40.0	-14.0	-26.0
125	-36.1	-14.0	-22.1
120	-40.9	-14.0	-26.9
115	-47.0	-14.0	-33.0
110	-43.0	-14.0	-29.0
105	-34.1	-14.0	-20.1
100	-35.4	-14.0	-21.4
95	-41.9	-14.0	-27.9
90	-46.0	-14.0	-32.0
85	-48.3	-24.0	-24.3
80	-45.1	-24.0	-21.1
75	-39.3	-24.0	-15.3
70	-32.5	-24.0	-8.5
65	-38.1	-24.0	-14.1
60	-38.8	-24.0	-14.8
55	-40.0	-24.0	-16.0
50	-47.1	-24.0	-23.1
45	-36.1	-23.3	-12.8
40	-31.7	-22.1	-9.6
35	-36.6	-20.6	-16.0
30	-28.1	-18.9	-9.1
25	-33.3	-16.9	-16.4
20	-36.1	-14.5	-21.5
15	-21.4	-11.4	-10.0
10.0	-16.3	-7.0	-9.3
9.9	-17.3	-6.9	-10.4
9.8	-18.3	-6.8	-11.5
9.7	-19.2	-6.7	-12.5
9.6	-19.6	-6.6	-13.0

9.5	-20.0	-6.4	-13.5
9.4	-20.2	-6.3	-13.9
9.3	-20.3	-6.2	-14.1
9.2	-20.4	-6.1	-14.3
9.1	-20.7	-6.0	-14.7
9.0	-21.2	-5.9	-15.4
8.9	-21.3	-5.7	-15.5
8.8	-21.3	-5.6	-15.7
8.7	-21.0	-5.5	-15.5
8.6	-20.4	-5.4	-15.0
8.5	-19.8	-5.2	-14.6
8.4	-19.2	-5.1	-14.1
8.3	-18.7	-5.0	-13.7
8.2	-18.3	-4.8	-13.4
8.1	-18.2	-4.7	-13.5
8.0	-18.4	-4.6	-13.8
7.9	-18.7	-4.4	-14.3
7.8	-19.1	-4.3	-14.8
7.7	-18.8	-4.2	-14.6
7.6	-18.5	-4.0	-14.5
7.5	-17.6	-3.9	-13.7
7.4	-16.0	-3.7	-12.3
7.3	-14.5	-3.6	-10.9
7.2	-13.0	-3.4	-9.6
7.1	-11.6	-3.3	-8.3
7.0	-9.2	-3.1	-6.1
6.9	-8.3	-3.0	-5.3
6.8	-7.5	-2.8	-4.7
6.7	-6.9	-2.7	-4.2
6.6	-6.3	-2.5	-3.8
6.5	-5.9	-2.3	-3.6
6.4	-5.6	-2.2	-3.4
6.3	-5.3	-2.0	-3.3
6.2	-5.2	-1.8	-3.3
6.1	-4.9	-1.6	-3.2
6.0	-4.8	-1.5	-3.3
5.9	-4.6	-1.3	-3.4
5.8	-4.5	-1.1	-3.4
5.7	-4.3	-0.9	-3.4
5.6	-4.1	-0.7	-3.4
5.5	-3.9	-0.5	-3.4
5.4	-3.7	-0.3	-3.4
5.3	-3.6	-0.1	-3.5
5.2	-3.4	0.1	-3.5
5.1	-3.4	0.3	-3.7
5.0	-3.4	0.5	-4.0
4.9	-3.7	0.7	-4.4

4.8	-3.9	1.0	-4.9
4.7	-4.3	1.2	-5.5
4.6	-4.8	1.4	-6.2
4.5	-5.3	1.7	-7.0
4.4	-6.0	1.9	-7.9
4.3	-6.7	2.2	-8.9
4.2	-7.5	2.4	-9.9
4.1	-8.8	2.7	-11.5
4.0	-9.2	2.9	-12.2
3.9	-9.3	3.2	-12.5
3.8	-9.3	3.5	-12.8
3.7	-8.6	3.8	-12.4
3.6	-7.8	4.1	-11.9
3.5	-6.8	4.4	-11.2
3.4	-5.5	4.7	-10.2
3.3	-4.2	5.0	-9.2
3.2	-2.9	5.4	-8.2
3.1	-0.3	5.7	-6.0
3.0	0.7	6.1	-5.4
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0.2			

0.1			
0.0			

EIRPsd Data Table for AZU-08(85cm)
 Cross-pol Elevation
 From -10 to 10 deg in 0.1 deg step
 Power density input = -19.2 dBW/4KHz
 Test Freq = 14.25GHz

Off-Axis Angle	Off-axis EIRPsd	25.222 Mask	Over Mask
Degrees	dBW/4KHz	dBW/4KHz	dB
-10.0	-27.9	-16.0	-11.9
-9.9	-28.5	-16.0	-12.5
-9.8	-29.2	-16.0	-13.2
-9.7	-29.9	-16.0	-13.9
-9.6	-30.7	-16.0	-14.7
-9.5	-31.6	-16.0	-15.6
-9.4	-32.4	-16.0	-16.4
-9.3	-33.3	-16.0	-17.3
-9.2	-34.2	-16.0	-18.2
-9.1	-35.1	-16.0	-19.1
-9.0	-36.7	-16.0	-20.7
-8.9	-37.5	-16.0	-21.5
-8.8	-38.2	-16.0	-22.2
-8.7	-38.7	-16.0	-22.7
-8.6	-39.0	-16.0	-23.0
-8.5	-39.4	-16.0	-23.4
-8.4	-39.1	-16.0	-23.1
-8.3	-38.7	-16.0	-22.7
-8.2	-38.1	-16.0	-22.1
-8.1	-36.6	-16.0	-20.6
-8.0	-34.8	-16.0	-18.8
-7.9	-33.6	-16.0	-17.6
-7.8	-32.3	-16.0	-16.3
-7.7	-31.1	-16.0	-15.1
-7.6	-29.9	-16.0	-13.9
-7.5	-28.8	-16.0	-12.8
-7.4	-27.7	-16.0	-11.7
-7.3	-26.6	-16.0	-10.6
-7.2	-25.7	-16.0	-9.7
-7.1	-24.8	-16.0	-8.8
-7.0	-23.1	-16.1	-7.0
-6.9	-22.3	-15.9	-6.4
-6.8	-21.6	-15.8	-5.8
-6.7	-20.9	-15.6	-5.3
-6.6	-20.3	-15.5	-4.8
-6.5	-19.8	-15.3	-4.4
-6.4	-19.3	-15.2	-4.1
-6.3	-18.8	-15.0	-3.8
-6.2	-18.4	-14.9	-3.5
-6.1	-17.7	-14.6	-3.1
-6.0	-17.4	-14.4	-3.0
-5.9	-17.1	-14.2	-2.8

-5.8	-16.8	-14.1	-2.8
-5.7	-16.6	-13.9	-2.7
-5.6	-16.3	-13.7	-2.6
-5.5	-16.1	-13.5	-2.5
-5.4	-15.8	-13.4	-2.4
-5.3	-14.8	-13.2	-1.7
-5.2	-14.2	-12.8	-1.3
-5.1	-12.8	-12.6	-0.2
-5.0	-13.7	-12.4	-1.3
-4.9	-14.4	-12.2	-2.1
-4.8	-14.5	-12.0	-2.5
-4.7	-14.4	-11.8	-2.6
-4.6	-14.4	-11.6	-2.8
-4.5	-14.5	-11.4	-3.1
-4.4	-14.6	-11.2	-3.5
-4.3	-14.8	-10.9	-3.9
-4.2	-15.5	-10.5	-5.1
-4.1	-16.0	-10.2	-5.8
-4.0	-16.5	-10.0	-6.6
-3.9	-17.2	-9.7	-7.5
-3.8	-17.9	-9.5	-8.4
-3.7	-18.7	-9.2	-9.4
-3.6	-19.4	-8.9	-10.5
-3.5	-20.1	-8.7	-11.5
-3.4	-20.6	-8.4	-12.3
-3.3	-21.1	-8.1	-13.0
-3.2	-20.9	-7.5	-13.5
-3.1	-20.7	-7.2	-13.5
-3.0	-19.7	-6.8	-12.8
-2.9	-18.7	-6.5	-12.2
-2.8	-17.5	-6.2	-11.4
-2.7	-16.2	-5.8	-10.4
-2.6	-14.9	-5.4	-9.4
-2.5	-13.6	-5.0	-8.5
-2.4	-12.3	-4.6	-7.7
-2.3	-11.1	-4.2	-6.9
-2.2	-9.0	-3.4	-5.7
-2.1	-8.1	-2.9	-5.2
-2.0	-7.3	-2.4	-4.9
-1.9	-6.6	-1.9	-4.7
-1.8	-6.0	-1.4	-4.7
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-1.0			
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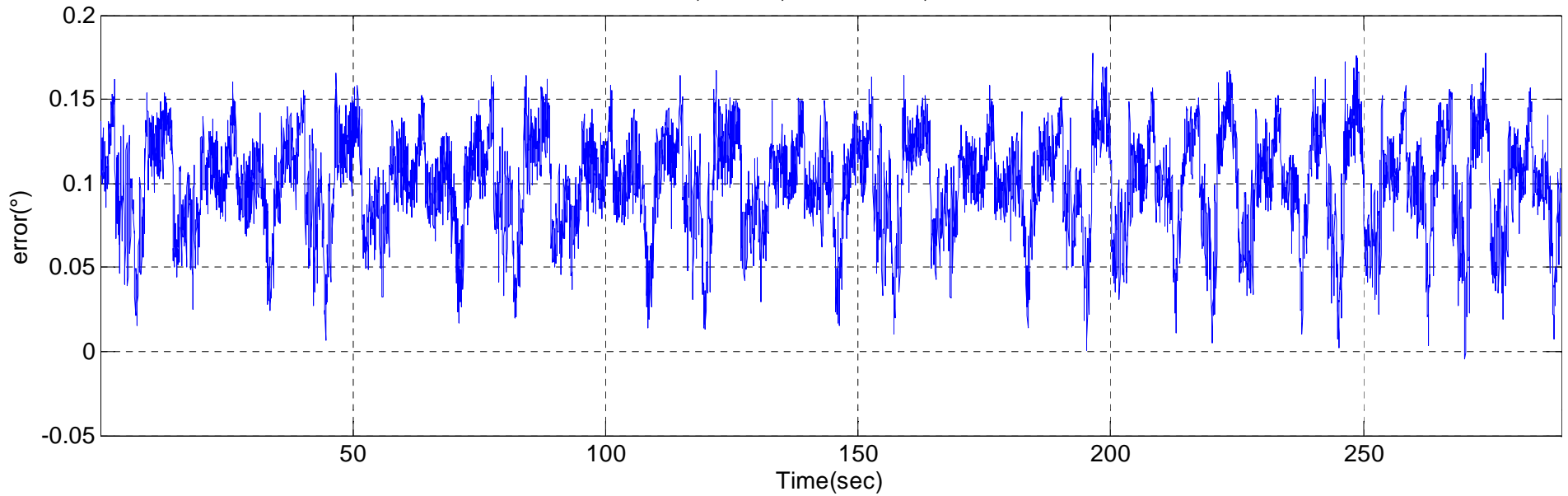
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1.7			
1.8	-6.7	-1.6	-5.2
1.9	-7.6	-2.1	-5.5
2.0	-8.7	-2.6	-6.1
2.1	-9.7	-3.1	-6.6
2.2	-10.9	-3.5	-7.3
2.3	-12.1	-4.0	-8.1
2.4	-13.4	-4.4	-9.0
2.5	-14.6	-4.8	-9.8
2.6	-17.1	-5.6	-11.5
2.7	-18.1	-5.9	-12.2
2.8	-19.1	-6.3	-12.9
2.9	-19.7	-6.6	-13.1
3.0	-20.3	-7.0	-13.3
3.1	-20.6	-7.3	-13.3
3.2	-20.7	-7.6	-13.1
3.3	-20.9	-7.9	-12.9
3.4	-20.7	-8.2	-12.4
3.5	-20.4	-8.5	-11.9
3.6	-20.1	-8.8	-11.3
3.7	-19.0	-9.3	-9.7
3.8	-18.4	-9.6	-8.9
3.9	-17.9	-9.8	-8.1
4.0	-17.4	-10.1	-7.3
4.1	-17.0	-10.3	-6.6

4.2	-16.5	-10.6	-6.0
4.3	-16.2	-10.8	-5.4
4.4	-16.0	-11.0	-5.0
4.5	-15.8	-11.2	-4.6
4.6	-15.8	-11.5	-4.3
4.7	-15.9	-11.9	-4.0
4.8	-16.0	-12.1	-4.0
4.9	-16.2	-12.3	-3.9
5.0	-16.5	-12.5	-4.0
5.1	-16.8	-12.7	-4.2
5.2	-17.2	-12.9	-4.3
5.3	-17.6	-13.1	-4.5
5.4	-18.0	-13.3	-4.8
5.5	-18.4	-13.4	-5.0
5.6	-19.2	-13.8	-5.4
5.7	-19.5	-14.0	-5.5
5.8	-19.7	-14.1	-5.6
5.9	-20.0	-14.3	-5.7
6.0	-20.2	-14.5	-5.7
6.1	-20.4	-14.6	-5.7
6.2	-20.6	-14.8	-5.8
6.3	-20.8	-14.9	-5.8
6.4	-21.0	-15.1	-5.9
6.5	-21.3	-15.3	-6.0
6.6	-21.5	-15.4	-6.1
6.7	-22.4	-15.7	-6.7
6.8	-22.8	-15.8	-7.0
6.9	-23.4	-16.0	-7.4
7.0	-24.0	-16.1	-7.9
7.1	-24.6	-16.3	-8.4
7.2	-25.4	-16.4	-9.0
7.3	-26.1	-16.5	-9.6
7.4	-26.9	-16.7	-10.2
7.5	-27.7	-16.8	-10.9
7.6	-29.2	-17.1	-12.2
7.7	-30.0	-17.2	-12.8
7.8	-30.7	-17.3	-13.3
7.9	-31.2	-17.5	-13.8
8.0	-31.8	-17.6	-14.2
8.1	-32.2	-17.7	-14.5
8.2	-32.6	-17.8	-14.8
8.3	-32.9	-17.9	-15.0
8.4	-33.2	-18.1	-15.1
8.5	-33.4	-18.2	-15.2
8.6	-33.7	-18.4	-15.3
8.7	-33.8	-18.5	-15.3
8.8	-33.7	-18.6	-15.1
8.9	-33.5	-18.7	-14.7
9.0	-33.2	-18.9	-14.3
9.1	-32.4	-19.0	-13.5

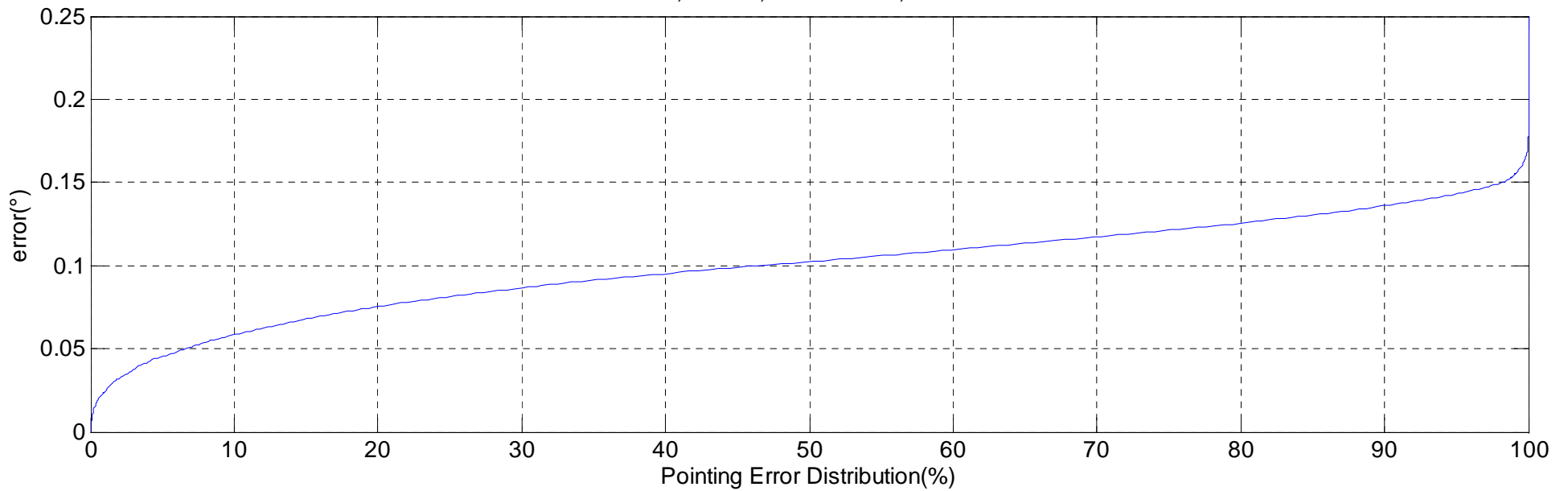
9.2	-31.7	-19.1	-12.6
9.3	-30.8	-19.2	-11.6
9.4	-29.8	-19.3	-10.5
9.5	-28.9	-19.4	-9.5
9.6	-27.2	-19.6	-7.6
9.7	-26.5	-19.7	-6.8
9.8	-25.9	-19.8	-6.1
9.9	-25.4	-19.9	-5.5
10.0	-25.0	-20.0	-5.0

AZU-08 RT Stability Accuracy Test

Az=45°, El=45°, R 22.5°@8s, P 10°@6s



Az=45°, El=45°, R 22.5°@8s, P 10°@6s



Ave Err (°) 0.1039

RMS Err (°) 0.0997

Max Err (°) 0.1776