National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC 17025:1999
ISO 9002:1994

Scope of Accreditation

CALIBRATION LABORATORIES **NVLAP LAB CODE 100290-0**

AKZO NOBEL K.K. KASHIMA EMC SITE
1 Oaza Sunayama, Hasaki, Kashima-gun
Ibaraki 314-0255
JAPAN
Mr. Shuichi Kobayashi
Phone: 81-479-40-1097 Fax: 81-479-46-1788
E-Mail: kobayashi@akzoemc.co.jp
URL: http://www.akzoemc.co.jp

ELECTROMAGNETICS - RF MICROWAVE

NVLAP Code: 20/R08
Microwave Antenna Parameters

Biconical, Logperi, Complex

Range in MHz	*Uncertainty (±) in dB*[note 1]	*Polarization*	*Distance in m*	*Height in m*
30 to 80	2.05	Horizontal	1	1
80 to 300	1.29	Horizontal	1	1
300 to 1000	0.84	Horizontal	1	1
30 to 80	1.97	Vertical	1	1
80 to 300	1.15	Vertical	1	1
300 to 1000	0.61	Vertical	1	1
30 to 80	2.05	Horizontal	1	1.5
80 to 300	1.29	Horizontal	1	1.5

December 31, 2004

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300 to 1000	0.84	Horizontal	1	1.5
30 to 80	1.97	Vertical	1	1.5
80 to 300	1.15	Vertical	1	1.5
300 to 1000	0.60	Vertical	1	1.5
30 to 80	2.05	Horizontal	1	2
80 to 300	1.28	Horizontal	1	2
300 to 1000	0.83	Horizontal	1	2
30 to 80	1.97	Vertical	1	2
80 to 300	1.15	Vertical	1	2
300 to 1000	0.61	Vertical	1	2
30 to 80	1.98	Horizontal	3	1
80 to 300	1.17	Horizontal	3	1
300 to 1000	0.64	Horizontal	3	1
30 to 80	1.99	Vertical	3	1
80 to 300	1.18	Vertical	3	1
300 to 1000	0.66	Vertical	3	1
30 to 80	2.00	Horizontal	3	1.5

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80 to 300	1.21	Horizontal	3	1.5
300 to 1000	0.72	Horizontal	3	1.5
30 to 80	2.01	Vertical	3	1.5
80 to 300	1.23	Vertical	3	1.5
300 to 1000	0.74	Vertical	3	1.5
30 to 80	2.00	Horizontal	3	2.0
80 to 300	1.20	Horizontal	3	2.0
300 to 1000	0.70	Horizontal	3	2.0
30 to 80	2.02	Vertical	3	2.0
80 to 300	1.23	Vertical	3	2.0
300 to 1000	0.75	Vertical	3	2.0
30 to 80	1.98	Horizontal	10	1.0
80 to 300	1.18	Horizontal	10	1.0
300 to 1000	0.66	Horizontal	10	1.0
30 to 80	1.98	Vertical	10	1.0
80 to 300	1.17	Vertical	10	1.0
300 to 1000	0.65	Vertical	10	1.5

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30 to 80	2.01	Horizontal	10	1.5
80 to 300	1.22	Horizontal	10	1.5
300 to 1000	0.73	Horizontal	10	1.5
30 to 80	2.01	Vertical	10	1.5
80 to 300	1.22	Vertical	10	1.5
300 to 1000	0.73	Vertical	10	1.5
30 to 80	2.00	Horizontal	10	2.0
80 to 300	1.21	Horizontal	10	2.0
300 to 1000	0.71	Horizontal	10	2.0
30 to 80	2.01	Vertical	10	2.0
80 to 300	1.22	Vertical	10	2.0
300 to 1000	0.74	Vertical	10	2.0

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Horn Antennas

Range in GHz	*Best Uncertainty (±) in dB*[note 1]	*Distance in m*
1 to 2.6	0.86	1
2.6 to 12	0.85	1
12 to 18	2.09	1
18 to 26.5	2.93	1
26.5 to 40	2.96	1
1 to 2.6	0.64	3
2.6 to 12	0.63	3
12 t 18	1.68	3
18 to 26.5	2.10	3
26.5 to 40	2.27	3

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LISNs - CDNs

Range in MHz	*Best Uncertainty (±)*[note 2]	*Value of K*
LISN's		
0.1 to 30	0.25 dB	2.00 Insertion Loss
0.1 to 30	0.98 ohm	1.99 Impedance
CDN		
0.1	0.95 dB	1.98 Insertion Loss
0.1	9.38 ohm	2.26 Impedance

1. Represents an expanded uncertainty using a coverage factor, k=2.
2. Represents an expanded uncertainty corresponding to a 95% level of confidence using a coverage factor, k. Values of k other than 2 were approximated by a t-distribution with the effective degrees of freedom Veff obtained from the Welch-Satterthwaite formula

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