National Institute of Standards and Technology

NVLAP®

National Voluntary Laboratory Accreditation Program

ISO/IEC 17025:1999
ISO 9002:1994

Scope of Accreditation

Revised 4/17/2003

CALIBRATION LABORATORIES **NVLAP LAB CODE 200012-0**

IPS CORPORATION
1878-1, Harumiya Ono, Tatsuno-machi
Kamiina-gun, Nagano-ken, PO Box 399-0601
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ELECTROMAGNETICS - RF MICROWAVE

NVLAP Code: 20/R08
Microwave Antenna Parameters

Range	*Best Uncertainty (±)*[note 1]	*Remarks*
Dipole Antenna (such as the VHA9103/UHA9105)		
30 to 80 MHz (tuned 80 MHz)	0.6 dB	Horizontal Antenna Factor (D=10m, H=2m) EMI Receiver used
30 to 300 MHz	0.6 dB	Horizontal Antenna Factor (D=10m, H=2m) EMI Receiver used
300 to 1000 MHz	0.8 dB	Horizontal Antenna Factor (D=10m, H=2m) EMI Receiver used

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Biconical Antenna (such as the BBA9106)

30 to 300 MHz	0.8 dB	Horizontal Antenna Factor (D=10m, H=2m) EMI Receiver used
30 to 300 MHz	0.7 dB	Horizontal Antenna Factor (D=3m, H=2m) EMI Receiver used
30 to 300 MHz	0.8 dB	Horizontal Antenna Factor (D=3m, H=1m) EMI Receiver used
30 to 300 MHz	0.8 dB	Vertical Antenna Factor (D=3m, H=1.5m) EMI Receiver used
30 to 300 MHz	1.0 dB	Vertical Antenna Factor (D=3m, H=1m) EMI Receiver used
30 to 300 MHz	0.7 dB	Horizontal Antenna Factor (D=10m, H=2m) Network Analyzer used
30 to 300 MHz	0.6 dB	Horizontal Antenna Factor (D=3m, H=2m) Network Analyzer used

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30 to 300 MHz	0.7 dB	Horizontal Antenna Factor (D=3m, H=1m) Network Analyzer used
30 to 300 MHz	0.8 dB	Vertical Antenna Factor (D=3m, H=1.5m) Network Analyzer used
30 to 300 MHz	0.9 dB	Vertical Antenna Factor (D=3m, H=1m) Network Analyzer used

Log-Periodic Antenna (such as USLP9143 / UHALP9108A)

300 to 1000 MHz	1.2 dB	Horizontal Antenna Factor (D=10m, H=2m) EMI Receiver used
300 to 1000 MHz	1.1 dB	Horizontal Antenna Factor (D=3m, H=2m) EMI Receiver used
300 to 1000 MHz	1.1 dB	Horizontal Antenna Factor (D=3m, H=1m) EMI Receiver used
300 to 1000 MHz	1.1 dB	Vertical Antenna Factor (D=3m, H=1.5m) EMI Receiver used
300 to 1000 MHz	1.2 dB	Vertical Antenna Factor (D=3m, H=1m) EMI Receiver used
300 to 1000 MHz	1.1 dB	Horizontal Antenna Factor (D=10m, H=2m) Network Analyzer used

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300 to 1000 MHz	1.1 dB	Horizontal Antenna Factor (D=3m, H=2m) Network Analyzer used
300 to 1000 MHz	1.1 dB	Horizontal Antenna Factor (D=3m, H=1m) Network Analyzer used
300 to 1000 MHz	1.1 dB	Vertical Antenna Factor (D=3m, H=1.5m) Network Analyzer used
300 to 1000 MHz	1.2 dB	Vertical Antenna Factor (D=3m, H=1m) Network Analyzer used
Bi-log Antenna (such as the CBL6112B)		
300 to 1000 MHz	1.3 dB	Horizontal Antenna Factor (D=10, H=2m) EMI Receiver used
LISN		
0.1 to 30 MHz	0.5 dB	Impedance
0.1 to 30 MHz	0.5 dB	Insertion Loss

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CDN		
0.1 to 10 MHz	1.2 dB	Impedance
10 to 30 MHz	0.7 dB	Impedance
30 to 100 MHz	0.6 dB	Impedance
100 to 230 MHz	0.8 dB	Impedance
0.1 to 10 MHz	0.5 dB	Insertion Loss
10 to 230 MHz	0.5 dB	Insertion Loss
RF Amplifier		
0.01 to 1000 MHz	1.4 dB	Gain
ESD Simulators		
0 to 15 kV	0.6 dB	Amplitude
0 to 15 kV	46.9 pS	Time at 500 pS/div
EFT/Burst		
0 to 2 kV	0.7 dB	Amplitude
1 to 2 kV	46.9 pS	Time at 500 pS/div

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EM Clamp		
0.1 to 230 MHz	0.5 dB	Insertion Loss
150 - 50 ohm Adaptor		
0.1 to 230 MHz	0.5 dB	Insertion Loss
Current Probe / Current Injection Probe		
0.1 to 230 MHz	0.5 dB	Insertion Loss
Isotropic Electric Field Probes (such as HI-4422)		
0.1 to 1000 MHz	1.6 dB	Correction Factor
Isotropic Electric Field Probes (such as HI-6005)		
0.1 to 1000 MHz	1.2 dB	Correction Factor
1000 to 3500 MHz	2.2 dB	Correction Factor
50 ohm Terminator		
0.1 to 1000 MHz	0.4 dB	Impedance

1. Represents an expanded uncertainty using a coverage factor, k=2.

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