



ADVANCED TECHNICAL MATERIALS, INC.

49 Rider Avenue, Patchogue, NY 11772

Tel: 631 289-0363 • Fax: 631 289-0358

Web: www.atmmicrowave.com

e-mail: atm@atmmicrowave.com

Certificate Number 6856EA

Certificate Of Calibration

The Antenna(s) has been individually calibrated using the following standard procedure(s):

ARP-958 and/or IEEE 291 and /or ANSI C63.5

Calibration Traceability: All measurement instrumentation traceable to the National Institute of Standards and Technology (NIST)

Calibration is IAW ANSI/NCSL Z540-1-1994 and ISO 17025

NIST Numbers: DCV 811/24944-92, ACV 521/234615, Ω 811/250891

Dimensional 821/253616-94, WWW Boulder, CO

Calibration Uncertainty: +/- 1dB

Environment: Temperature: 72 Degrees Fahrenheit
Humidity: 52% (non-condensing)

Manufacturer	Model Number	Serial Number	Date of Calibration
ATM	90-442-6/CAL	G097203-01	14-Mar-06

Re-Certification Date: 1 year from calibration date

Calibration Equipment Used

	Model Number	Serial Number	Calibration Due Date		Model Number	Serial Number	Calibration Due Date
[X]	HP-8563E	3551A04250	23-Sep-06	[]	HP-85620A	01282	12-Jan-07
[]	HP-85644A	3407A00167	25-May-06	[]	HP-3325A	1625A00598	2-May-06
[X]	HP-8673D	2747A00701	12-Jan-07	[]	HP-8620C	1604A00368	2-May-06
[]	HP-11970A	2332A02615	12-Jan-07				
[]	M-AD1020P	0216	12-Jan-07				

Antenna Condition

Pre Calibration:		Post Calibration:	
In tolerance	[]	Meets all specs	[X]
Out of tolerance	[]	Limited specs	[]
Repair required	[]	Other	[]
Repair performed	[]		

Special Limitations: _____

David Habermann
Quality Control Manager



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Horizontal Polarization (Far-Field)

3 Meter Calibration, Horn Antenna

Model: 90-442-6/CAL Serial Number: G097203-01 Date: 14-Mar-06

Frequency (MHz)	Antenna Factor (dB/m)	Gain (dBi)	Gain (Numeric)
8200	29.89	18.63	72.96
8300	29.73	18.89	77.51
8400	29.66	19.07	80.74
8500	29.76	19.08	80.85
8600	29.64	19.30	85.07
8700	29.56	19.47	88.57
8800	29.70	19.44	87.86
8900	29.71	19.53	89.68
9000	29.63	19.70	93.33
9100	29.80	19.62	91.69
9200	29.85	19.67	92.70
9300	29.73	19.88	97.34
9400	29.90	19.81	95.70
9500	29.95	19.86	96.72
9600	29.95	19.94	98.64
9700	30.03	19.95	98.87
9800	30.00	20.08	101.75
9900	30.05	20.11	102.66
10000	30.21	20.03	100.76
10100	30.22	20.12	102.71
10200	30.00	20.41	110.00

Add antenna factor plus cable loss to receiver reading in dBuV to convert to field intensity in dBuV/meter. Calibrate per SAE ARP-958 and/or ANSI C63.5 and/or IEEE 291



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3 Meter Calibration, Horn Antenna

Model: 90-442-6/CAL Serial Number: G097203-01 Date: 14-Mar-06

Frequency (MHz)	Antenna Factor (dB/m)	Gain (dBi)	Gain (Numeric)
10300	30.05	20.46	111.08
10400	30.13	20.46	111.13
10500	30.09	20.58	114.28
10600	30.39	20.37	108.79
10700	30.17	20.66	116.46
10800	30.29	20.62	115.40
10900	30.42	20.57	114.08
11000	30.25	20.83	120.97
11100	30.54	20.61	115.11
11200	30.29	20.95	124.31
11300	30.24	21.07	127.90
11400	30.24	21.15	130.22
11500	30.36	21.10	128.82
11600	30.40	21.13	129.79
11700	30.52	21.09	128.67
11800	30.35	21.33	135.88
11900	30.42	21.33	135.94
12000	30.38	21.45	139.63
12100	30.50	21.40	138.06
12200	30.49	21.48	140.65
12300	30.57	21.48	140.51
12400	30.48	21.64	145.78

Add antenna factor plus cable loss to receiver reading in dBuV
to convert to field intensity in dBuV/meter. Calibrate per
SAE ARP-958 and/or ANSI C63.5 and/or IEEE 291