



Broadband Linearly Polarized Log Periodic Antennas



FEATURES/BENEFITS:

- **Broadband Coverage with Essentially Constant Gain and Beamwidth**
- **Removable Elements for Portability and Storage**
- **Mounting Kits for Vertical, Horizontal or Slant Linear Polarization**
- **Extremely Rugged Design for Severe Environments**
- **Designed to MIL-E-16400**

TECOM's Family of Log Periodic Antennas are linearly polarized structures covering extremely broad frequency ranges, with essentially constant performance characteristics (i.e., frequency independent). These directional antennas yield an average gain of 7.5 dBi and are ideally suited for direction finding and

surveillance applications. This series of antennas is available in several different models for specific frequency range coverage.

The larger antennas covering the frequency range of 20 MHz to 1,100 MHz are made of aluminum construction with removable elements for ease of assembly and disassembly. Smaller antennas covering 0.5 - 26.5 GHz frequency range are radome enclosed, foam filled and hermetically sealed. These antennas may be used as stand alone or as reflector feeds. The limited phase center excursion affords efficient operation over the whole 0.5 - 26.5 GHz frequency range when used as a reflector feed.

Electrical Performance Specifications

Type Number	Frequency Range	VSWR (Max)	Average Power	Cross Polarization (Typical)	RF Connector	Gain (dBLi)
201174	20 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201003A	30 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201008A	50 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201009A	90 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201010A	150 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201011A	250 - 1100 MHz	2.0:1	200	20 dB	N	7.5 Avg.
201513	0.5 - 18.0 GHz	3.0:1*	5	15 dB	SMA	**
201822	1.0 - 18.0 GHz	3.0:1	5	15 dB	SMA	6.5 Avg.
201822X	1.0 - 26.5 GHz	3.0:1	5	15 dB	SMA	6.5 Avg.

* Over 95% of band ** 3.5 Avg. (0.5 - 4.0) 5.5 Avg. (4.0 - 18.0)

Common Electrical Performance Data

- 1) Polarization: Linear
- 2) 3 dB Beamwidth E-Plane = 65° (nom) H-Plane = 100° (nom)
- 3) F/B Ratio: 20 dB typical
- 4) Impedance: 50 Ohms

Innovative Antenna Solutions

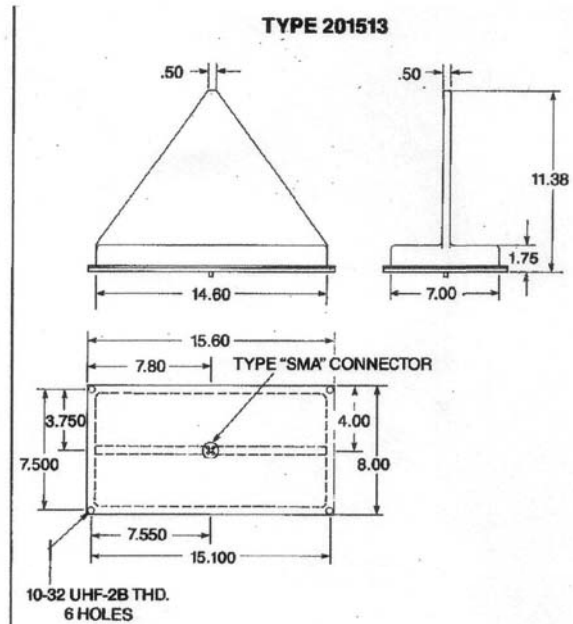
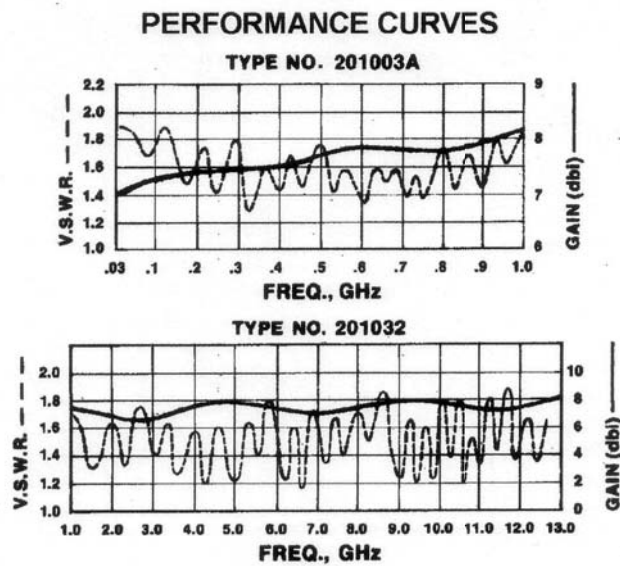


Fig. 4

Mechanical Specifications													
Non-Radome Enclosed													
TYPE NO.	MOUNT CONFIG	"A" DIM (MAX)		"B" DIM (MAX)		"C" DIM (MAX)		"D" DIM (MAX)		"E" DIM (MAX)		WEIGHT	
		IN	M	IN	M	IN	CM	IN	CM	IN	CM	LB	KG
210174	1	339	8.61	300	7.62	6.720	17.06	6.72	17.16	.500 DIA/1.27		200	90.71
201003A	1	242	6.14	202	5.13	6.720	17.06	6.72	17.06	.500 DIA/1.27		110	49.89
201008A	1	169	4.24	140	3.55	6.720	17.06	6.72	17.06	.500 DIA/1.27		40	18.14
201009A	2	83	2.10	70	1.77	2.312	5.87	3.50	8.89	.328 DIA/0.83		12	5.44
201010A	2	54	1.37	41	1.04	2.062	5.23	5.82	14.78	.328 DIA/0.83		8	3.62
201011A	2	33	0.83	25	0.63	2.062	5.23	5.37	13.64	.328 DIA/0.83		5	2.20
Radome Enclosed													
201031	3	16.3	0.41	14.9	0.37	1.8	4.57	5.750	14.50	.875	222	3.6	1.58
201513	4	See Figure 4										3.5	1.58
201822	3	8.6	0.40	8.0	0.20	1.50	3.81	5.750	14.50	.875	222	1.0	0.45

