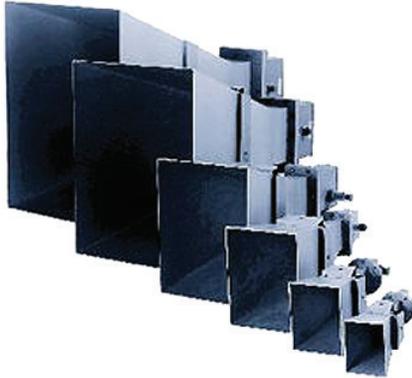


ANTENNA MODEL 3160



MODEL 3160

- Constant Antenna Factor Over Frequency
- Complete with Feed, Waveguide, Mount
- Increased Power Dissipation
- Optimal Beam Width
- Low VSWR

ETS-Lindgren's Model 3160 Standard Gain Horns cover a multi-octave bandwidth of 1 GHz to 40 GHz. All models in the series are linearly polarized, have medium gain, optimum half power beamwidth (equal in both horizontal and vertical planes), and low VSWR. Antenna factors are constant throughout the entire operating frequency range. Comparisons of measured versus computed gain have been found to be within +/- 0.5 dB. ANSI C63.4 recommends the use of standard gain horn antennas as a reference standard above 1 GHz.

While the coaxial feed allows power input of up to 550 W (Models 3160-01, 02, 03), higher power input is possible by removing the detachable feed and direct mounting the flange to an amplifier waveguide port.

Electrical Specifications

Model	Frequency	E-Plane	H-Plane	Maximum Continuous Power
3160-01	0.96 GHz – 1.46 GHz	26	27	550 W
3160-02	1.12 GHz – 1.70 GHz	26	26	550 W
3160-03	1.70 GHz – 2.60 GHz	27	27	550 W
3160-04	2.60 GHz – 3.95 GHz	26	27	250 W
3160-05	3.95 GHz – 5.85 GHz	26	27	250 W
3160-06	5.85 GHz – 8.20 GHz	24	25	250 W
3160-07	8.20 GHz – 12.40 GHz	26	26	250 W
3160-08	12.40 GHz – 18 GHz	26	27	200 W
3160-09	18 GHz – 26.50 GHz	27	27	50 W
3160-10	26.50 GHz – 40 GHz	27	27	10 W

Electrical Specifications

Model	Antenna Factor	Gain	Typical Field Strength	Pattern Type	Polarization
3160-01	15.4 dB (1/m)	16.5 dBi	700 V/m	Directional	Linear
3160-02	16.9 dB (1/m)	16.3 dBi	700 V/m	Directional	Linear
3160-03	20.6 dB (1/m)	16.3 dBi	650 V/m	Directional	Linear
3160-04	23.7 dB (1/m)	16.7 dBi	500 V/m	Directional	Linear
3160-05	27.3 dB (1/m)	16.7 dBi	500 V/m	Directional	Linear
3160-06	29.9 dB (1/m)	17.1 dBi	500 V/m	Directional	Linear
3160-07	33.5 dB (1/m)	16.9 dBi	500 V/m	Directional	Linear
3160-08	37.1 dB (1/m)	16.7 dBi	435 V/m	Directional	Linear
3160-09	40.3 dB (1/m)	16.8 dBi	220 V/m	Directional	Linear
3160-10	43.5 dB (1/m)	17 dBi	100 V/m	Directional	Linear

ANTENNA MODEL 3160

Physical Specifications

Model	Connectors	Waveguide Type	Weight	Width	Depth	Height
3160-01	Type N Female	WR-770	25.00 kg (55.12 lb)	63.22 cm (24.89 in)	103.25 cm (40.65 in)	47.50 cm (18.70 in)
3160-02	Type N Female	WR-650	10.00 kg (22.05 lb)	53.44 cm (21.04 in)	88.29 cm (34.79 in)	40.18 cm (15.82 in)
3160-03	Type N Female	WR-430	4.55 kg (10.03 lb)	34.65 cm (13.64 in)	64.14 cm (25.25 in)	26.65 cm (10.49 in)
3160-04	Type N Female	WR-284	2.27 kg (5.00 lb)	24.13 cm (9.50 in)	55.25 cm (21.75 in)	18.14 cm (7.14 in)
3160-05	Type N Female	WR-187	1.62 kg (3.57 lb)	16.33 cm (6.43 in)	29.90 cm (11.77 in)	12.24 cm (4.82 in)
3160-06	Type N Female	WR-137	0.80 kg (1.76 lb)	12.24 cm (4.82 in)	29.90 cm (11.77 in)	9.04 cm (3.56 in)
3160-07	Type N Female	WR-90	0.43 kg (0.95 lb)	8.06 cm (3.17 in)	22.63 cm (8.91 in)	6.26 cm (2.46 in)
3160-08	Type N Female	WR-62	0.28 kg (0.62 lb)	5.54 cm (2.18 in)	14.00 cm (5.51 in)	4.27 cm (1.68 in)
3160-09	Type N Female	WR-42	0.11 kg (0.24 lb)	3.84 cm (1.51 in)	10.49 cm (4.13 in)	2.95 cm (1.16 in)
3160-10	Type N Female	WR-28	0.06 kg (0.13 lb)	2.76 cm (1.09 in)	8.69 cm (3.42 in)	2.15 cm (0.85 in)