

WAVE FRONTIER TOROIDAL T55 / T90



TOROIDAL

It is developed by toroidal formula while other existing satellite antennas apply parabolic formula. Signals reflected twice through the main reflector and sub reflector form a focal line along the bottom of the main reflector and it makes TOROIDAL function as a multi-beam antenna. It passed the satellite antenna performance test conducted by Coram Engineering, USA. It is able to replace several single-beam antennas because it receives couples of broadcast & communication satellites at the same time.

It is applicable world-wide.

SPECIFICATIONS

Model		TOROIDAL 55	TOROIDAL 90
Main Reflector	Height	53.2 cm	96.7 cm
	Width	66.8 cm	108.6 cm
Sub Reflector	Height	25.3 cm	36.1 cm
	Width	49.7 cm	83.6 cm
Reception Frequency		10.70 - 12.75 GHz	10.70 - 12.75 GHz
Antenna Gain (at 12.5 GHz)		35.95dB (at 0deg, Atzimuth) 35.40dB (at 20deg, Atzimuth)	40.10dB (at 0deg, Atzimuth) 39.20dB (at 20deg, Atzimuth)
Atzimuth (at Tilt 0deg)		+/- 30 deg (Total 60 deg)	+/- 25 deg (Total 50 deg)
LNB Installation		1 - 10 EA	1 - 16 EA
Efficiency		70% - 82%	65% - 80%
Polarization		Linear & Circular	Linear & Circular
Material		Galvanized Steel	Galvanized Steel
Finish Coating		Polyester Powder Coating	Polyester Powder Coating
Color		White-Gray, Dark Gray	White-Gray, Dark Gray
Operating Temperature		-30°C / +60°C	-30°C / +60°C
Relative Humidity		0% - 90%	0% - 90%
Damage Winds		65 m/sec	60 m/sec
Operating Winds		50 m/sec	45 m/sec

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1	Astra 2	28.0 E
2	Kopernikus	23.5 E
3	Astra 1	19.0 E
4	Eutelsat W2	16.0 E
5	Hotbird	13.0 E
6	Eutelsat W1	10.0 E
7	Eutelsat W3	7.0 E
8	Sirius	4.0 E
9	Thor	1.0 W
10	Telecom 2C	4.5 W
11	Telecom 2D	8.0 W
12	Express 3A	11.0 W
13	Telstar 12	15.0 W
14	Intelsat 901	18.0 W

Fazit (Originaltextwiedergabe aus TeleSatellit Ausgabe 10-11/2001)

Die TOROIDAL-90 ist eine wirkliche Innovation. Gerade wenn man mehrere Ku-Band-Satelliten östlich und westlich der eigenen Südposition empfangen möchte, ist sie selbst der billigsten Drehanlage überlegen. LNBs kosten heute sehr wenig Geld und so werden sich preislich beide Anlagen-Typen angleichen. Bei der TOROIDAL entfällt jede Mechanik, die irgendwann ihren Geist aufgibt. Noch wichtiger ist die fehlende Geräuschentwicklung. Und kommt mal ein neuer Satellit im Einzugsbereich hinzu, so ist man für etwa 20 Euro fürein LNB dabei. Vorausgesetzt natürlich, man hat den richtigen DiSEqC-Schalter. Hervorragend ist die Verarbeitung der Antenne. Die Installation ist denkbar einfach und die Ausrichtung ist eine Sache von einigen Minuten. Ein deutliches Plus gegenüber einer Polarmount-Antenne.

Technische Daten

Model		TOROIDAL 55	TOROIDAL 90
Main Reflector	Height	53.2 cm (20.9 in)	96.7 cm (38.1 in)
	Width	66.8 cm (26.3 in)	108.6 cm (42.8 in)
Sub Reflector	Height	25.3 cm (10.0 in)	36.1 cm (14.2 in)
	Width	49.7 cm (19.6 in)	83.6 cm (32.9 in)
Net Weight		6.7kg (14.7 lbs)	14.1 kg (31.0 lbs)
Operating Frequency		10.70 - 12.75 GHz	10.70 - 12.75 GHz
Polarization		Linear & Circular	Linear & Circular
Multi Satellite Arc Range		+/- 20 degree	+/- 20 degree
LNB Installation		1 - 8 EA	1 - 16 EA
Antenna Gain (at 12.5 GHz)		35.7dB (+/- 0.3dB)	39.65dB (+/- 0.45dB)
Recommended Satellite Spacing		4.5 degrees	3 degrees
Reflector Material		Galvanized Steel	Galvanized Steel
Finish Coating		Polyester Powder Coating	Polyester Powder Coating
Operating Temperature		-30°C to 60 (-26F to 140F)	-30C to +60C (-26F to 140F)
Relative Humidity		0% - 90%	0% - 90%
Wind Loading	Operational	80 km/h (50 mph)	80 km/h (50 mph)
	Survival	200 km/h (125 mph)	200 km/h (125 mph)
Acceptable Pole Diameter		42 mm	60 mm

Satellite list for TOROIDAL T55 / T90

Longitude		45.0 E	42.0 E	36.0 E	28.2 E	24.2 E	26.0 E	19.2 E	16.0 E	13.0 E	10.0 E	7.0 E	5.0 E	0.8 W	4.0 W	5.0 W	8.0 W	11.0 W	12.5 W	15.0 W	18.0 W
Satellite		EUROPE-STAR 1	TURKSAT 1C EURASIASAT 1	EUTELSAT SESAT/W4	EUROBIRD, ASTRA 2A/2B/2C	ASTRA 1D	ARABSAT 3A	ASTRA 1B	EUTELSAT W2	HOTBIRD 1	EUTELSAT W1	EUTELSAT W3	SIRIUS 2-3	THOR 2/3	AMOS 1	TELECOM 2C	TELECOM 2D	EXPRESS 3A	EUTELSAT 2 F2	TELESTAR 12	INTELSAT 901
T - 55	London, UK	●	●		●	●		●	●	●			●							●	●
	Paris, FRANCE	●	●		●	●		●	●	●			●			●	●			●	●
	Frankfurt, GERMANY	●			●	●		●	●	●			●	●	●	●	●			●	●
	Vienna, AUSTRIA	●			●	●		●	●	●			●	●	●	●	●			●	●
	Brussel, BELGIUM	●			●	●		●	●	●			●	●	●	●	●			●	●
	Amsterdam, NL	●			●	●		●	●	●			●	●		●	●			●	●
	Luxembourg, LU	●			●	●		●	●	●			●	●	●	●	●			●	●
	Bern, SWITZERLAND	●			●	●		●	●	●			●	●						●	●
	Rome, ITALY	●			●	●		●	●	●			●	●						●	●
	Copenhagen, DENMARK	●			●	●		●	●	●			●	●						●	●
	Oslo, NORWAY	●			●			●	●	●			●	●						●	●
	Stockholm, SWEDEN	●						●	●	●			●	●						●	●
	Helsinki, FINLAND	●						●	●	●			●	●						●	●
	Madrid, SPAIN	●			●	●		●	●	●			●								
T - 90	London, UK	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●
	Paris, FRANCE	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●
	Frankfurt, GERMANY	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Vienna, AUSTRIA	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Brussel, BELGIUM	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Amsterdam, NL	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Luxembourg, LU	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Bern, SWITZERLAND	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Rome, ITALY	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Copenhagen, DENMARK	●		●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Oslo, NORWAY	●		●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Stockholm, SWEDEN	●		●	●	●		●	●	●	●	●	●	●	●	●	●		●	●	●
	Helsinki, FINLAND	●		●	●			●	●	●	●	●	●	●	●	●	●		●	●	●
	Madrid, SPAIN	●		●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	

Satellite list for TOROIDAL T55 / T90