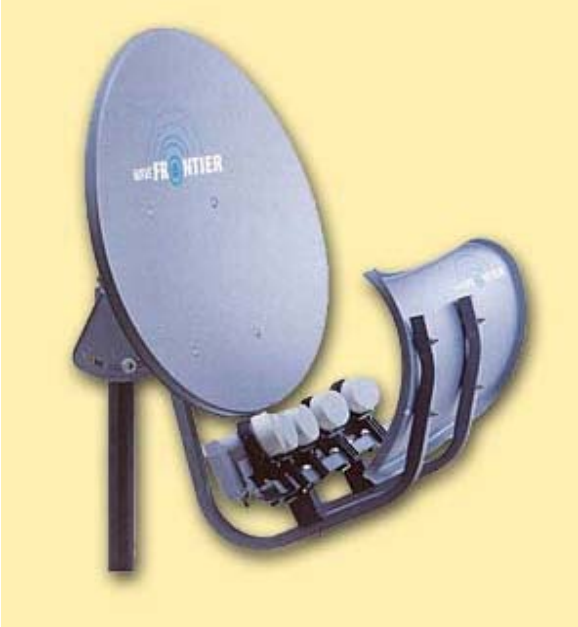
Test Results for the TOROIDAL 55 & 90 cm

TOROIDAL 55 Dual Reflector Antenna. A maximum of 10 LNB's can be installed across an azimuth range of +/-15° for a total of 30°. What this means is that in UK reception guaranteed for nearly every satellite from the Astra 2. 28° East position to Telecom 2A at 8° West.



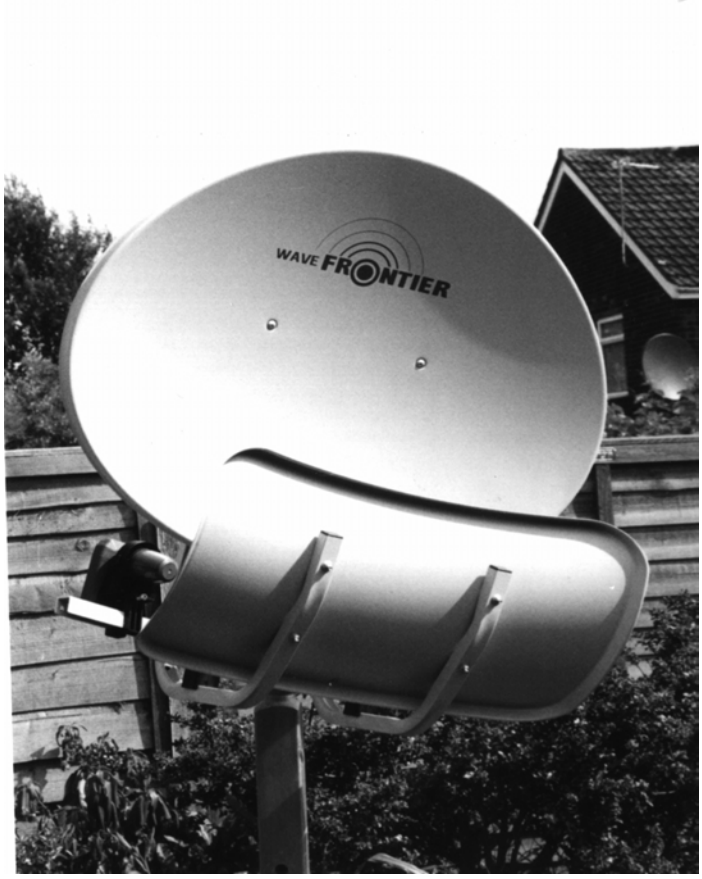
Results obtained from **TOROIDAL 55** in Camberley Surrey. Lat 51.20N Long 00.50 W. LNB's Type ALPS BSNE8-601B, NF=0.7dB typ.
Test equipment Televes MTD 120. (By R.Miles, Race Communications Ltd.)

Satellite	Band & Pol	Freq	Power dBuv	C/N dBuv
Telecom 2C 5 west	High V	12.585	68.1	20.6
Sirius 2-3 5 east	High V	12.265	68.1	20.0
Hotbird 13 east	Low v	11.366	72.0	20.6
	Low H	11.390	71.4	20.3
	High V Digital	12.673	71.0	13.7
	High H Digital	12.654	68.0	14.0
Astra 19 east	Low V	10.818	71.2	19.0
	Low H	10.964	71.3	20.1
	High V Digital	12.051	73.0	17.0

	High H Digital	12.109	72.8	18.0
Astra 2A/ 28 east	High V Digital	12.207	68.0	12.0
	High H Digital	12.032	70.0	14.0

The assembly of the Toroidal 55 was a matter of about 20 mins and all fitted together with out any problems, the Toroidal comes with well documented instructions and to work out the elevation and tilt it is just a matter of placing a template over the satellites that you wish to view, I set Hotbird 13 deg as my center satellite form there it was just a matter of placing the other LNB onto the supporting arm at the position as per the template. At first I had small feed LNB's, which gave signal noise, but after an e-mail to the manufactures tech dept. it was found necessary to fit LNB with feeds of 50 mm or more. The overall results via a Global 4 way DiSEqC switch in to an Echostar 3000 IP plus a SKY Digibox were found to be very good with sparkle free analogue pictures from all tested satellite.

Digital signals were good from transponders that would normally require up to 70 cms. Overall the Toroidal 55 proved to be the answer to a Multi-satellite installation when a mix of channels are required from a number of satellites, due to the twin reflector all LNB's are in focus as is not the case with a twin sat dish arrangement. The TOROIDAL 55 will take up to 5 LNB's at 3 deg spacing and a azimuth of +/- 20 deg of the center satellite. .



Note the amount of tilt on the dish, this is to account for the elevation angles between satellites 55 cm
LNB's aligned for Telecom 5 west to Astra 2 at 28 deg east. These LNB's were changed for wider feed type later.

TOROIDAL 90 Dual Reflector Antennas. A maximum of 14 LNB's can be installed across an azimuth range of +/-25° for a total of 50°. What this means is that in UK reception guaranteed for nearly every satellite from the Europe star 47° East position to Telecom 2A at 8° West.

Results obtained from **TOROIDAL 90cm** Sunningdale Berkshire. Lat 51.N Long 00.47 W. LNB's Type ALPS BSNE8-601B, NF=0.7dB typ.
Test equipment Televes MTD 120. (By R.Miles, Race Communications Ltd.)

Satellite	Band & Pol	Freq	Power dBuv	C/N dBuv
Telecom 2C 5 west	High V	12.585	72.8	24.5
Sirius 2-3 5 east	High V	12.265	74.1	23.6
Hotbird 13 east	Low V	11.366	74.0	24.0
	Low H	11.390	73.2	23.3
	High V Digital	12.673	73.8	15.6
	High H Digital	12.654	71.8	16.0
Astra 19 east	Low V	10.818	75.5	23.3
	Low H	10.964	74.6	22.3
	High V Digital	12.051	75.2	21.0
	High H Digital	12.109	76.3	21.7
Astra 2A/ 28 east	High V Digital	12.207	77.3	18.0
	High H Digital	12.032	78.0	19.2