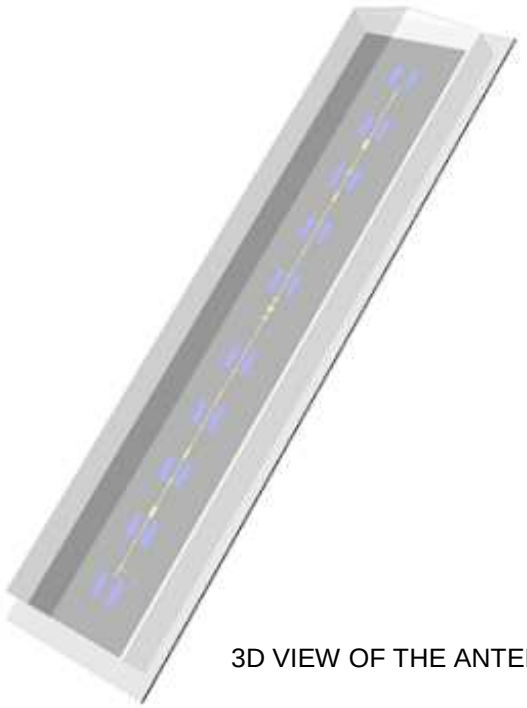
TetraAnt_Pro_sector_family

9 models available



3D VIEW OF THE ANTENNA

FAMILY MAIN FEATURES:

- FOR PROFESSIONAL APPLICATION
- 2.4 or 5 GHz
- H or V POLARIZATION
- HIGH POLARIZATION PURITY - EXTREMELY EFFICIENT FOR POLARIZATION DIVERSITY SYSTEMS
- 14 to 17 dBi
- 60 to 160* deg. FOR 3DB HORIZONTAL HPBW
- VERY WIDEBAND
- VERY GOOD VSWR
- RSLL - SUPPRESSED SIDELOBE LEVELS
- ZERO_SQUINT
- 5 YAERS GUARANTEE
- PATENTS PENDING - IMPORTANT INFORMATION

RED - important_feature

Elboxrf has released a brand new family of advanced sector antennas,TetraAnt_Pro - developed using leading 2.5D and 3D EM tools as well as the sofisticated mesurement equipment - by the same person who designed in 2004/2005 bestselling TetraAnt sectors and panels - Przemyslaw Fert, principial electrical engineer, who also is the company founder and owner. (Visit www.elboxrf.com to learn more about ELBOXRF™)

The TetraAnt family of antennas were found by clients as an excellent choice because of their electrical and mechanical parameters and extraordinary overall parameters consistency over the years. There is no measured difference in quality between antennas manufactured in 2005 and now - the only difference you can find is the serial number and the date of manufacture.
And - as for any humans product, that was found excellent - the TetraAnt series, sectors and directional panels were widely "cited" by individuals and even companies. But never equalled.

Now, after developing and patent work, new antennas to occur - the TetraAnt_Pro antennas family using developed in house proprietary and patented technology.

New antennas family features high cross-polarization rejection in the whole band 5.15 - 5.95GHz, that suppress the orthogonal polarized signal at least 30dB, great realized gain and the gain flatness and the exceptional range of horizontal HPBW; from 60 deg, by 120 deg. and even 160 deg. Of course, antennas have suppressed sidelobe levels - RSLL, like other ELBOXRF™ antennas.

TetraAnt_Pro - the advanced 5/2 GHz sector antennas.

The following antennas are available. Please note, that only some antennas are in the stock.				
MODEL	**BAND [GHZ]**	**POLARIZATION**	**HPBW [DEG] @ -3dB**	**GAIN [dB]**
TETRAANT_PRO 5 60 17 V	5	V	60	17
TETRAANT_PRO 5 90 16 V	5	V	90	16
TETRAANT_PRO 5 120 15 V	5	V	120	15
TETRAANT_PRO 5 160 14 V	5	V	160*	14
TETRAANT_PRO 5 60 17 H	5	H	60	17
TETRAANT_PRO 5 90 16 H	5	H	90	16
TETRAANT_PRO 5 110 15 H	5	H	110	15
TETRAANT_PRO 2 90 14 V	2	V	90	14
TETRAANT_PRO 2 120 12 V	2	V	120	12

* 180°. at -6 dB

TetraAnt_Pro_sector_family

9 models available

ANTENNA NAME | FREQUENCY | HOR. HPBW | GAIN | POLARIZATION

TETRAANT_PRO_5_60_17_V

Specifications in tables are common for all family members.
The following parameters will be show in details, as figures, for the each antenna model:

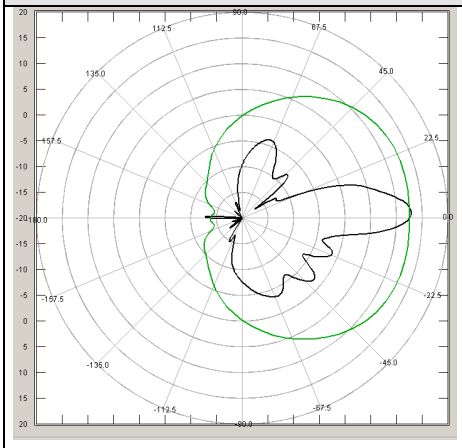
1. Copol_Pattern_Horizontal see Fig. 1
2. Copol_Pattern_Vertical see Fig. 1
3. Sidelobe_Suppresion see Fig. 1
4. Front _to_Back_Ratio see Fig. 1
5. Crosspolar_Patterns see Fig. 3
6. VSWR see Fig. 2
7. Gain_Flatness see Fig. 4

Please note that all characteristics reflect real parameters at important points of the band. They worth a hundred words to the experienced eye.
But if you have additional questions, please ask the designer: fert@elboxrf.com

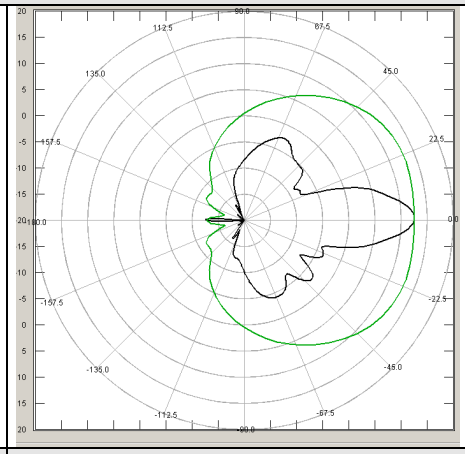
Electrical Specifications		
Frequency band		5150 - 5950 MHz
Nominal impedance		50 Ω
VSWR		Fig. 2
Realized Gain and Gain Flatness		Fig. 4
Squint error		0 deg.
Polarization		Linear, vertical or horizontal
Half Power Beamwidth - HPBW,	Horizontal	Fig. 1
Half Power Beamwidth - HPBW,	Vertical	Fig. 1
Sidelobe suppresion		Fig. 1
Front/Back ratio		Fig. 1
Crosspolar rejection		Fig. 3
Lightning protection		DC grounded

Mechanical Specifications		
Technology	microstrip	
Input Connector	N, Female	
Dimensions	475x116x40 mm, with the connector	
Radome	White UV resistant plastic	
Base	High strength aluminum alloy	
Construction	Completely weatherproof	
Mounting Kit	On the kit, allows elevation adjust.	The pipe diameter: 20 – 50 mm
Antenna Weight	0.8 - 1 kg, depends on the model	Incl. the mounting kit
Packing	Carton, 10x13x55 cm	1.05 - 1.20 kg ready to shipment

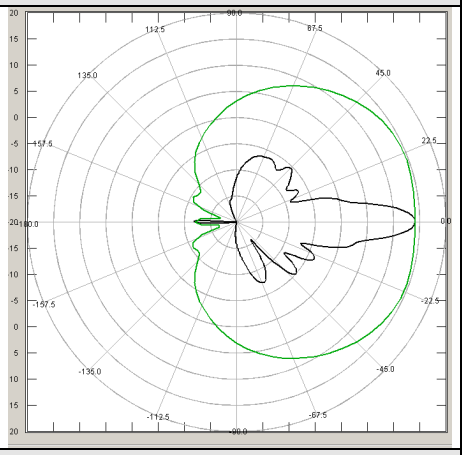
TETRAANT_PRO_5_120_15_V



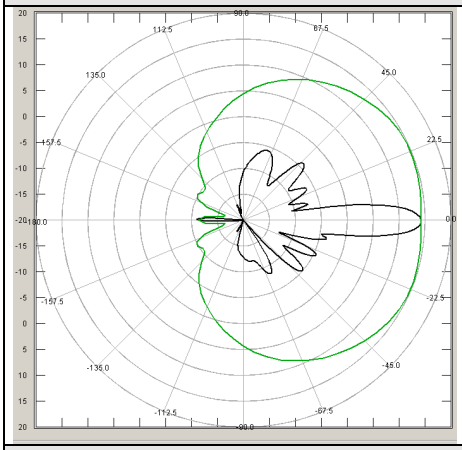
4.9 GHz HPBW: H=100°, V=12°



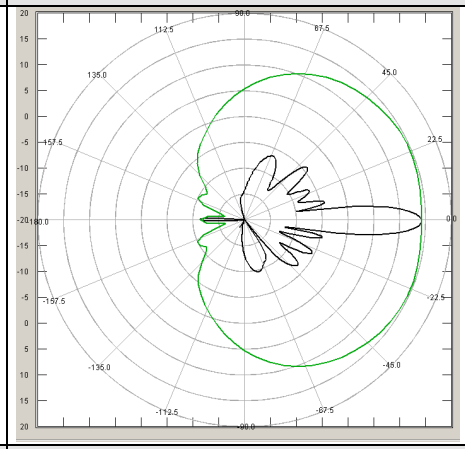
5.15 GHz HPBW: H=100°, V=11°



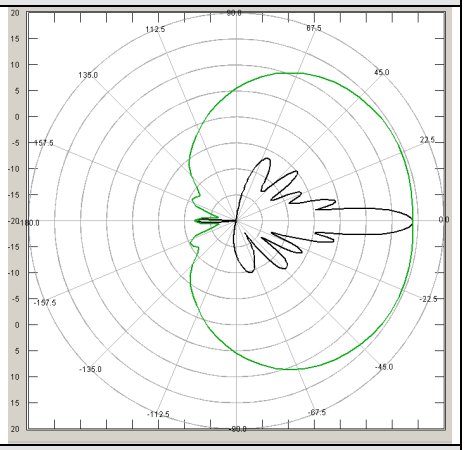
5.4 GHz HPBW: H=110°, V=10°



5.6 GHz HPBW: H=116°, V=9°



5.85 GHz HPBW: H=130°, V=9°



5.95 GHz HPBW: H=132°, V=8°

Fig. 1 Co-polar radiation in both principal planes: H and V , 40 dB scale

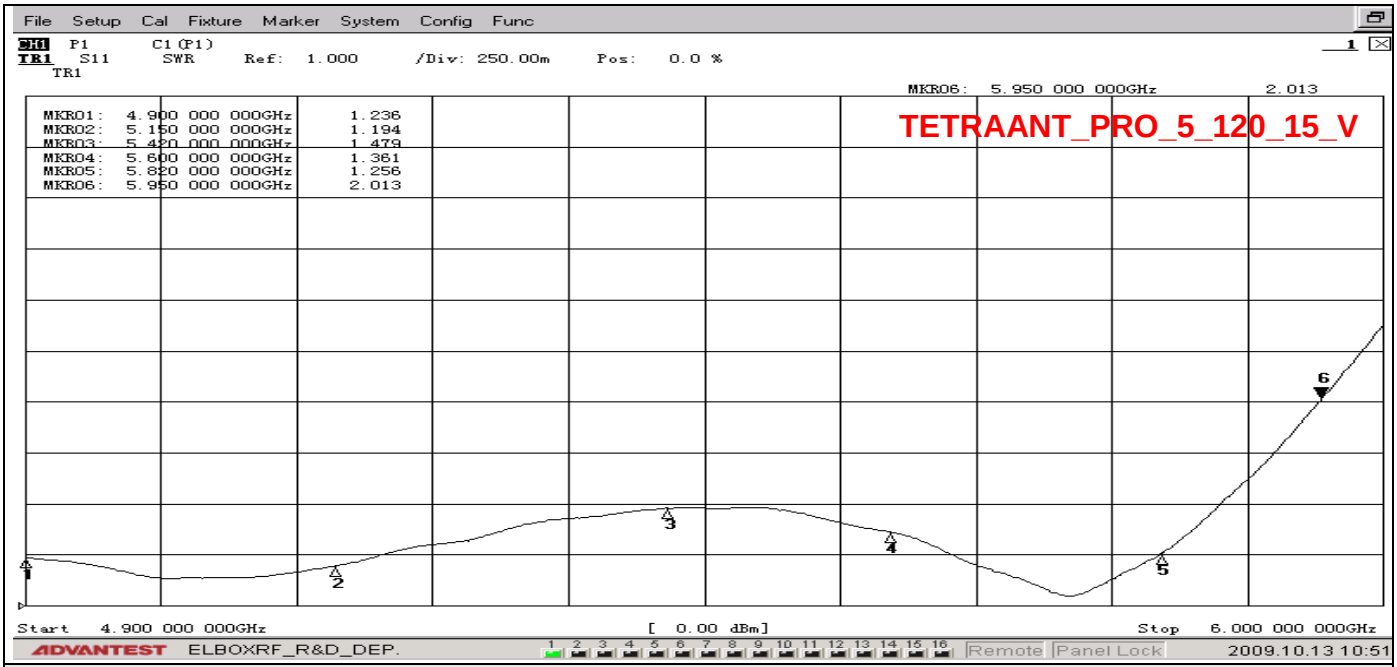
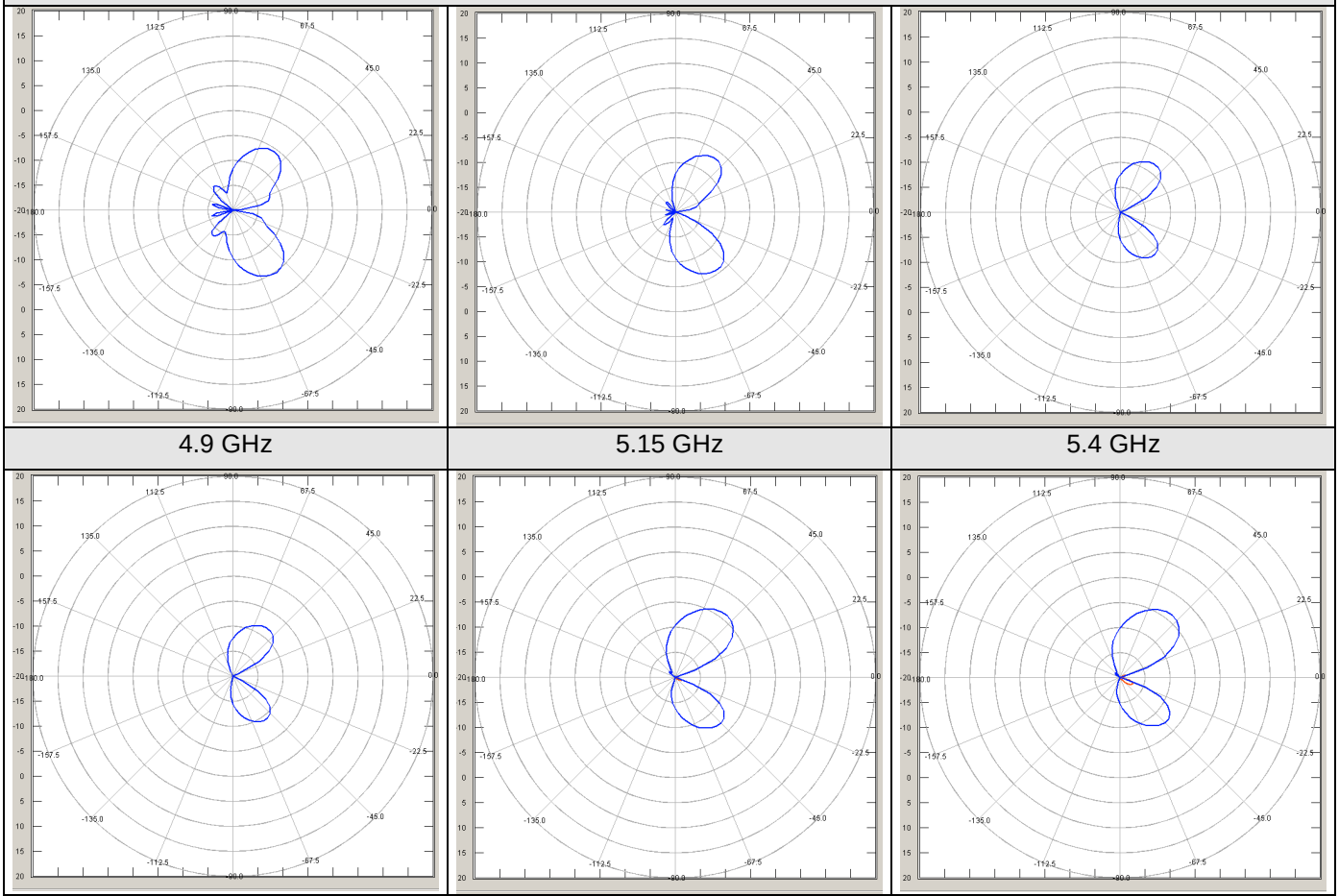


Fig. 2 VSWR, min=1.0 max=3.5 division=0.25 6 markers, from 4.9 to 5.95 GHz

TETRAANT_PRO_5_120_15_V



4.9 GHz	5.15 GHz	5.4 GHz
5.6 GHz	5.85 GHz	5.95 GHz

Fig. 3 Cross-polar patterns for both principal planes: H and V, 40 dB scale

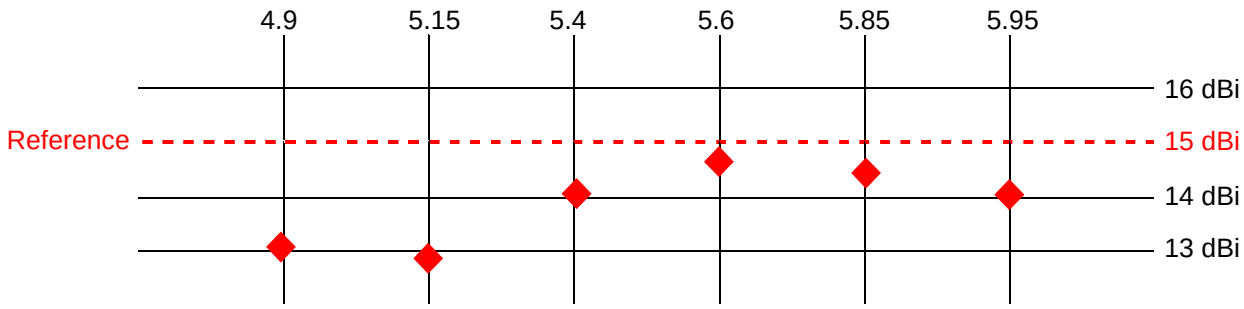


Fig. 4 Realized Gain Flatness - measurement