

x-pol tetra panel antenna

tetracube

customized for your needs





tetracube x-pol panel antenna

380 - 470 MHz

Electrical specifications

Frequency range : 380 – 470 MHz
Input impedance : 50 Ω
V.S.W.R. : < 1.5
Isolation between channels : > 20 dB
Polarization : ±45°
Gain : 5.5 dBi
Half-power beam width: : 105°
Front-to-back ratio : >25 dB
Lightning protections : DC grounded
Continuous max power per input : 500 W
Intermodulation IM3 : <-150 dBc
(2x43 dBm carrier)
Operating temperature : -50°C ÷ 70°C
Radome material : Taramid B280
Antenna elements : Stainless steel

Enviromental conditions

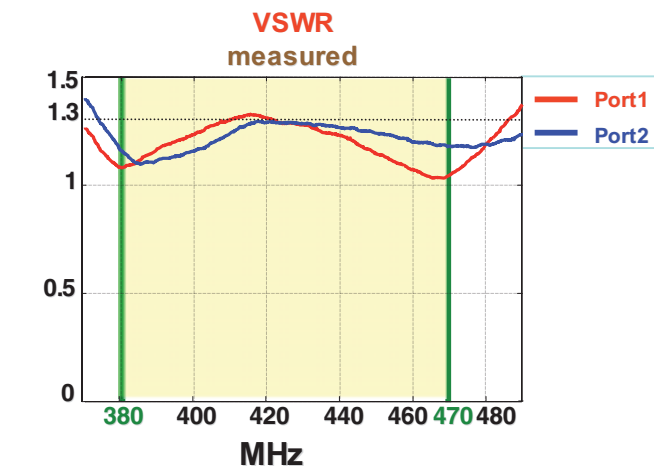
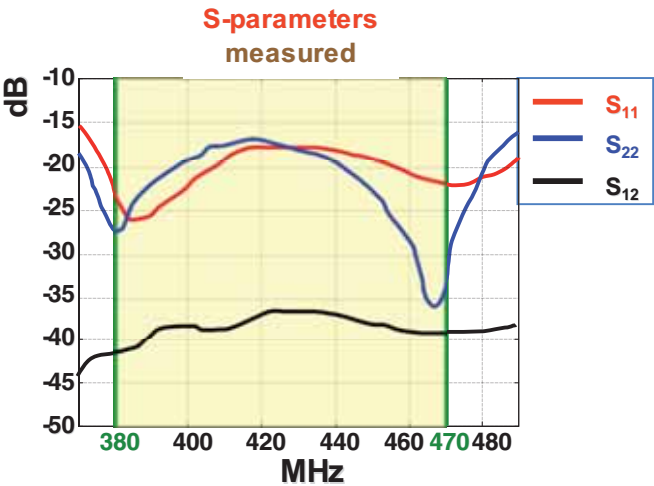
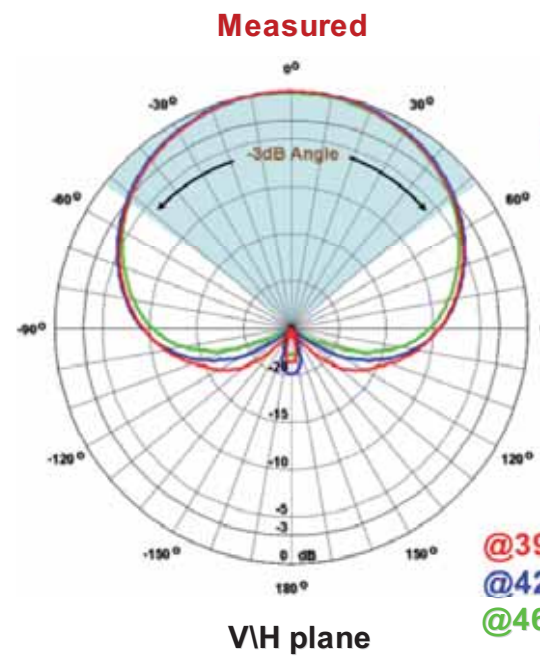
Designed to operate on the environmental conditions as described in ETS 300 019-1-4.

Mechanical specifications

Type of connection : 2x7/16 female
Dimensions : 270x270x192 mm
Weight : 2.8 Kg
Wind load (@ 150 Km/h)
Frontal : 100 N
Lateral : 95 N
Rearside : 110 N



Radiation Pattern for ±45° Polarization

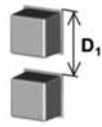


Configuration Type

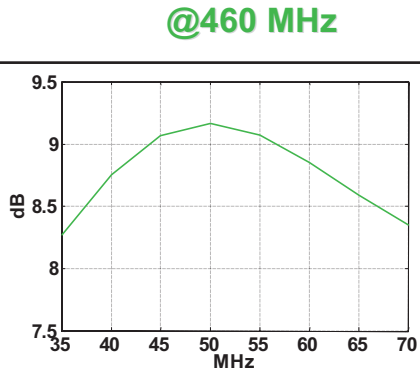
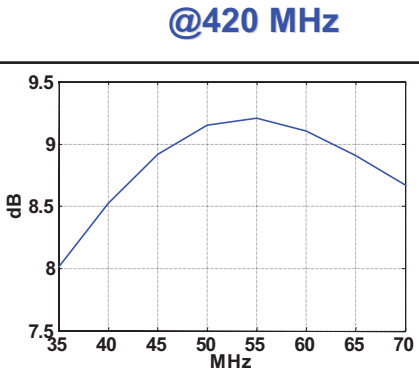
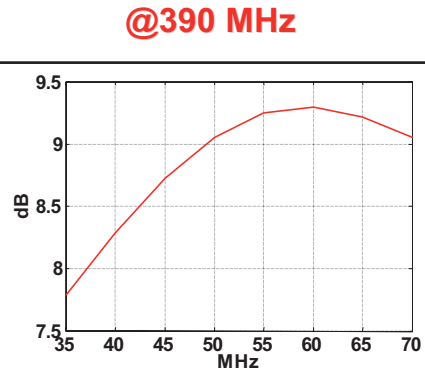
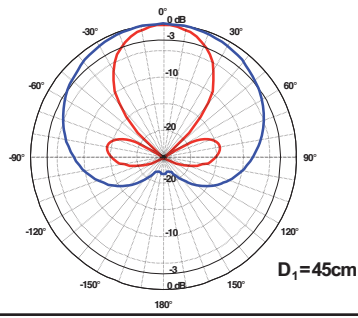
Radiation Pattern

Variation of the Max Gain with the elements distance

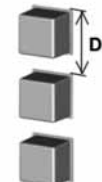
2x1 CONFIGURATION



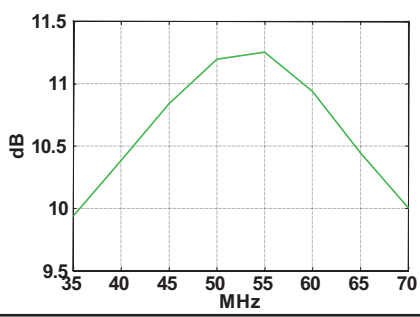
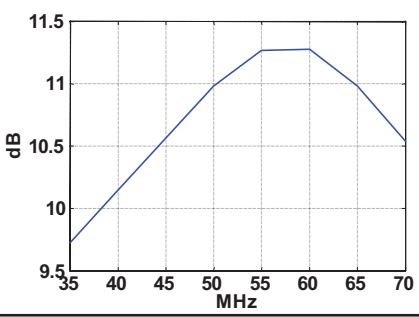
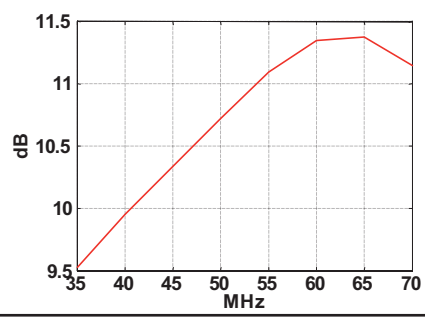
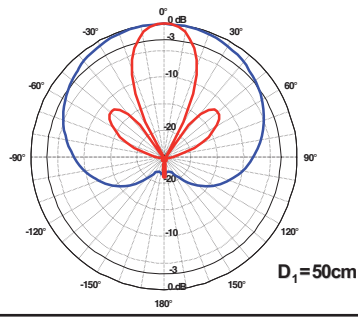
Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	35 - 50 cm
Gain (dBi)	8 - 9	8 - 9.5	8.5 - 9.5	Length	62 - 77 cm
HPBW _h (deg)	108°	110°	110°	Width	27 cm
HPBW _v (deg)	55° - 45°	53° - 36°	50° - 36°		



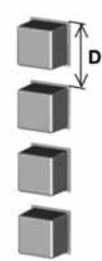
3x1 CONFIGURATION



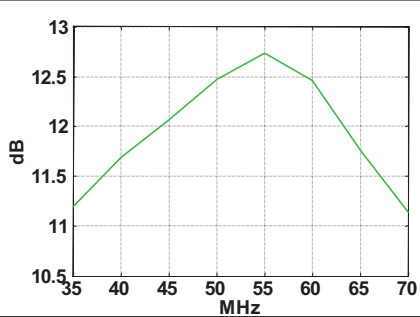
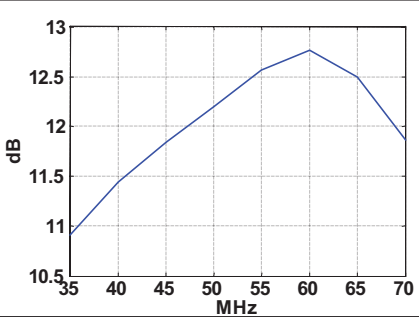
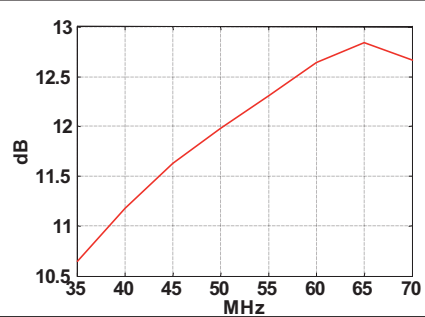
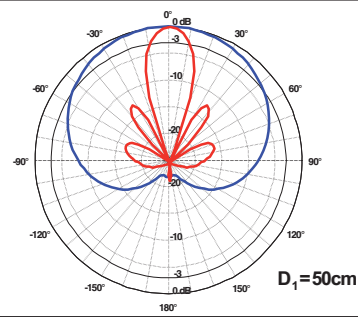
Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	40 - 60 cm
Gain (dBi)	10.5 - 11.5	10.5 - 11.5	10.5 - 11.5	Length	107 - 147 cm
HPBW _h (deg)	108°	110°	110°	Width	27 cm
HPBW _v (deg)	32° - 22°	30° - 20°	28° - 20°		



4x1 CONFIGURATION



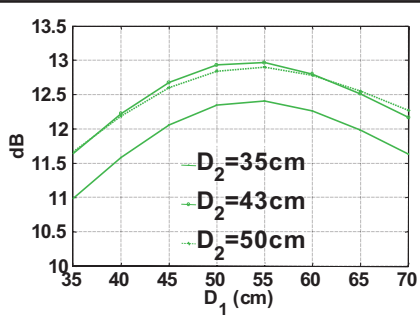
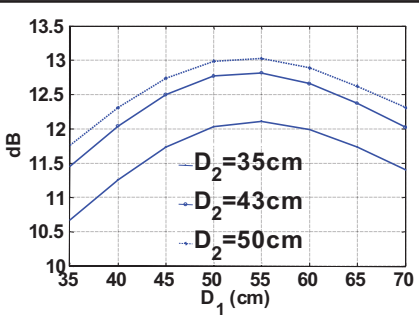
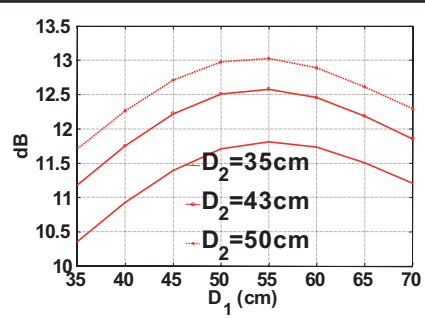
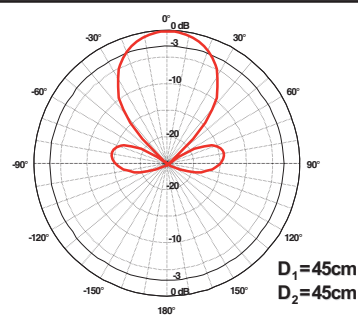
Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	40 - 60 cm
Gain (dBi)	11.5 - 12.5	11.5 - 12.5	11.5 - 12.5	Length	147 - 207 cm
HPBW _h (deg)	108°	110°	110°	Width	27 cm
HPBW _v (deg)	24° - 16°	22° - 16°	22° - 14°		



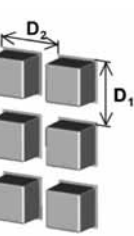
2x2 CONFIGURATION



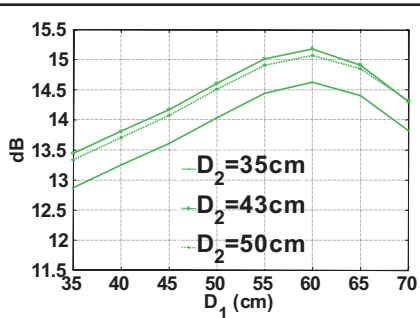
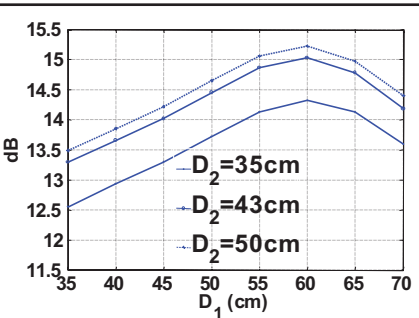
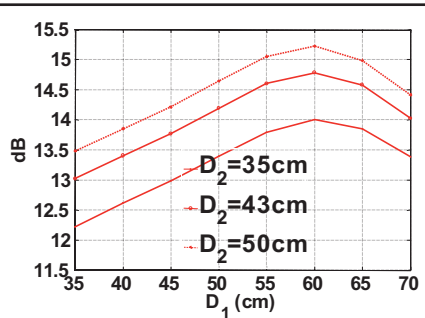
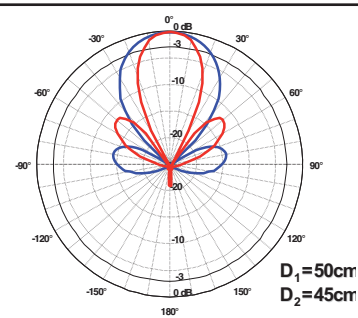
Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	35 - 50 cm
Gain (dBi)	10.5 - 13	10.5 - 13	10.5 - 13	D ₂	35 - 50 cm
HPBW _h (deg)	55° - 40°	53° - 36°	50° - 36°	Length	62 - 77 cm
HPBW _v (deg)	55° - 40°	53° - 36°	50° - 36°	Width	62 - 77 cm



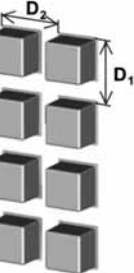
3x2 CONFIGURATION



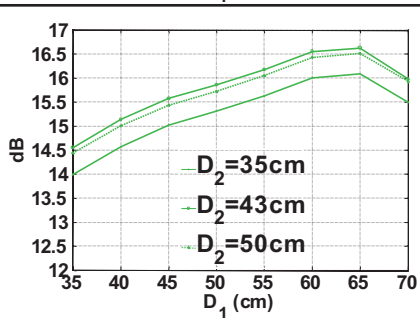
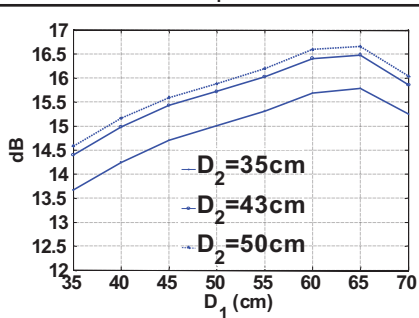
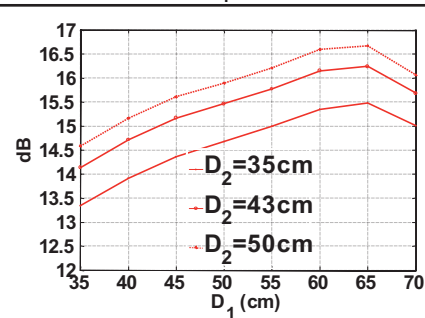
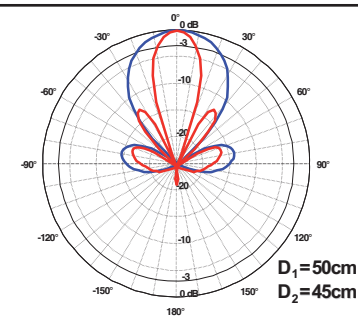
Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	40 - 60 cm
Gain (dBi)	12.5 - 15	13 - 15	13 - 15	D ₂	35 - 50 cm
HPBW _h (deg)	32° - 22°	30° - 20°	28° - 20°	Length	107 - 147 cm
HPBW _v (deg)	32° - 22°	30° - 20°	28° - 20°	Width	62 - 77 cm



4x2 CONFIGURATION



Radiaton Features				Physical Dimension	
Freq.	@390MHz	@420MHz	@460MHz	D ₁	40 - 60 cm
Gain (dBi)	14 - 16	14.5 - 16.5	14.5 - 16.5	D ₂	35 - 50 cm
HPBW _h (deg)	55° - 40°	53° - 36°	50° - 36°	Length	147 - 207 cm
HPBW _v (deg)	24° - 16°	22° - 16°	22° - 14°	Width	62 - 77 cm



components for configuration

configuration	tetracube modules	array feeding 2-ways	array feeding 3-ways	array feeding 4-ways	vertical mast	horizontal mast	down - tilt electrical or mechanical	
2x1	2 pcs	2 pcs	---	---	1 pcs type 77	---	---	available
3x1	3 pcs	---	2 pcs	---	1 pcs type 147	---	available	available
4x1	4 pcs	---	---	2 pcs	1 pcs type 207	---	available	available
2x2	4 pcs	---	---	2 pcs	2 pcs type 77	2 pcs type 77	---	available
3x2	6 pcs	2 pcs	2 pcs	---	2 pcs type 147	2 pcs type 77	available	available
4x2	8 pcs	2 pcs	---	2 pcs	2 pcs type 207	2 pcs type 77	available	available

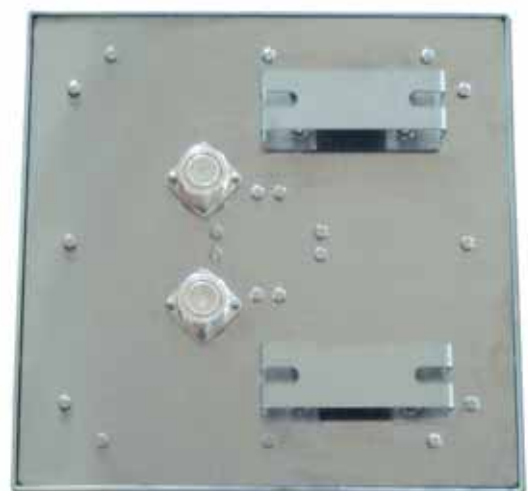


**Our array feeding are IP67,
assembled with high quality
flexible cable.**

**Return Loss (RL) <-22 dB,
Insertion Loss (IL) <0.5 dB
in frequency band 380-470 MHz.**

**All antenna elements are made
in stainless steel with 7/16 silver
plated connectors.**

**Tetracube is equipped with 2
stainless steel clamps.**





Traditional tetra panel antenna
length around 2 meters, 22 Kg
(only antenna, mast not included)



TETRACUBE panel antenna
length around 1.5 meters, 12 Kg
(only antennas; mast not included)

ADVANTAGES OF TETRACUBE Vs. TRADITIONAL PANEL ANTENNA

Tetracube is a smaller smart panel antenna.
Thanks to its own modularity, you can tailor-made antenna on your needs,
by adding more modules.

You can have good performances with smaller dimension,
reducing weight and wind resistance.

This way makes the installation easier.

Thanks to its very large bandwidth, you can reduce the stock in
your storehouse: with a single code, you can cover
all tetra markets: civil; military and transportation.



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