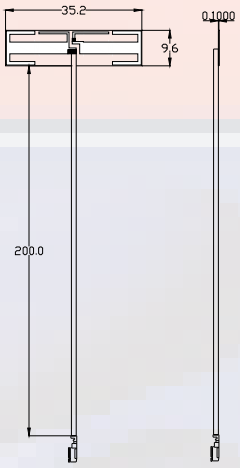
2,4-4,9/5,8 GHz DIPOLE ANTENNA

Part Number 639_200_UFL/2

Applications

- Networking
- Telemetry



Main features

- Wide band
- No need of ground plane
- Adhesive
- Easy to integrate
- Dipole structure
- Flexible on polymide

Main Specifications

Parameter/ Frequency Band	2,4-2,5 GHz	5,1-5,8 GHz
Peak Gain (dBi)	1,4	1,2
Total radiated Efficiency	>58%	>47%
VSWR (*)	<2,0	<2,0
Imp. (Ohm)	50	50
Polarization	Linear	Linear

Dimensional data

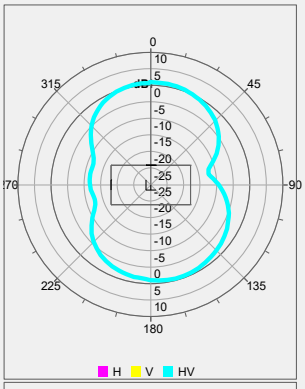
Parameter	Data
Dimensions	35x9,6 mm
Cable Type	microcoax 1.13
Cable length	200mm
Connector Type	U.FL
Mounting	Adhesive
Substrate	0,1 mm polymide

2,4-4,9/5,8 GHz DIPOLE ANTENNA

Part Number 639_200_UFL/2

Data Pattern

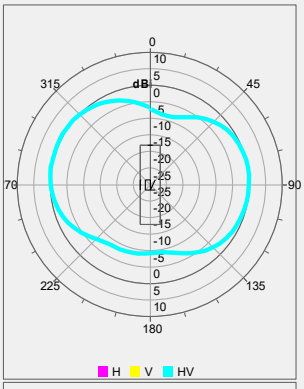
YZ Gain 2400 MHz



Gain (dBi)
YZ Plane Totals - 2400 MHz

Pol	Min	Max	Avg	Dir
H	-17,6	0,8	-3,3	4,1
V	-26,3	-11,1	-14,4	3,2
HV	-12,6	0,9	-3,0	3,9

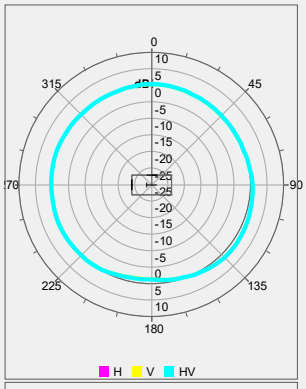
ZX Gain 2400 MHz



Gain (dBi)
ZX Plane Totals - 2400 MHz

Pol	Min	Max	Avg	Dir
H	-18,8	0,4	-3,4	3,8
V	-16,3	-6,4	-9,8	3,4
HV	-9,3	0,5	-2,5	3,0

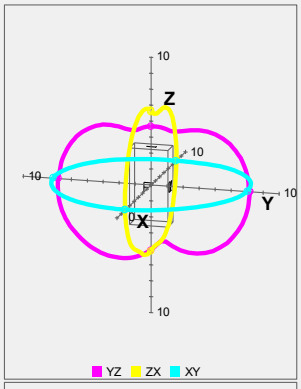
XY Gain 2400 MHz



Gain (dBi)
XY Plane Totals - 2400 MHz

Pol	Min	Max	Avg	Dir
H	-35,1	-11,1	-14,7	3,6
V	-1,6	1,4	0,0	1,3
HV	-1,2	1,4	0,2	1,2

3D Gain 2400 MHz



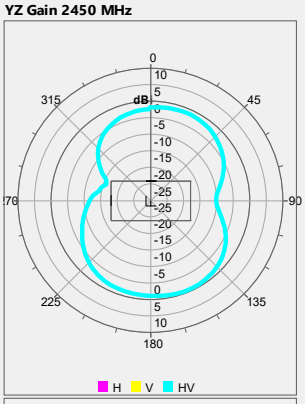
Gain (dBi)
3 Plane Totals - 2400 MHz

Pol	Min	Max	TIG	Dir
HV	-12,6	1,4	-1,6	2,9
HV			69,8%	

[new]

14/04/2020 11.11.24

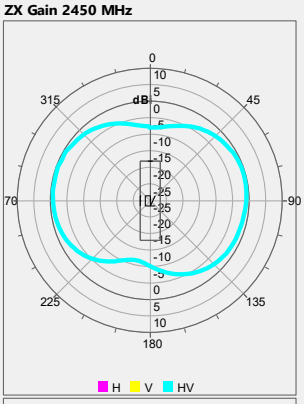
YZ Gain 2450 MHz



Gain (dBi)
YZ Plane Totals - 2450 MHz

Pol	Min	Max	Avg	Dir
H	-21,5	-0,8	-4,2	3,4
V	-27,4	-10,3	-13,3	3,0
HV	-15,8	-0,6	-3,7	3,1

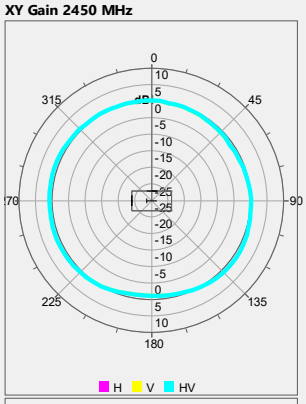
ZX Gain 2450 MHz



Gain (dBi)
ZX Plane Totals - 2450 MHz

Pol	Min	Max	Avg	Dir
H	-20,3	-0,7	-4,1	3,4
V	-14,4	-5,8	-9,4	3,5
HV	-11,4	-0,4	-3,0	2,5

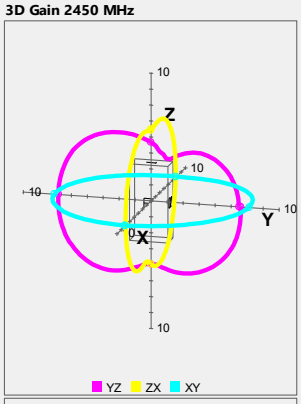
XY Gain 2450 MHz



Gain (dBi)
XY Plane Totals - 2450 MHz

Pol	Min	Max	Avg	Dir
H	-34,6	-10,9	-15,0	4,1
V	-1,5	0,9	0,1	0,9
HV	-1,2	0,9	0,2	0,8

3D Gain 2450 MHz



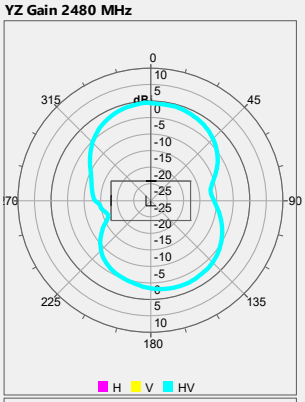
Gain (dBi)
3 Plane Totals - 2450 MHz

Pol	Min	Max	TIG	Dir
HV	-15,8	0,9	-1,7	2,7
HV			67,3%	

[new]

14/04/2020 10.48.12

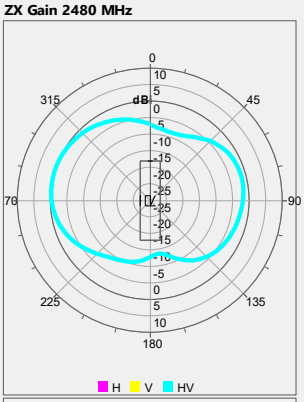
YZ Gain 2480 MHz



Gain (dBi)
YZ Plane Totals - 2480 MHz

Pol	Min	Max	Avg	Dir
H	-20,9	-0,6	-5,0	4,4
V	-30,6	-9,9	-14,7	4,8
HV	-16,5	-0,5	-4,5	4,1

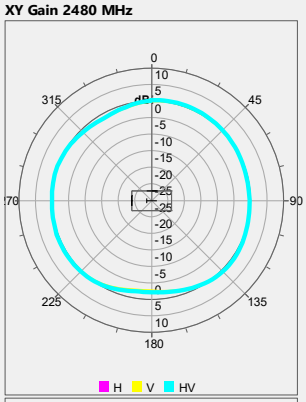
ZX Gain 2480 MHz



Gain (dBi)
ZX Plane Totals - 2480 MHz

Pol	Min	Max	Avg	Dir
H	-22,5	-0,3	-4,8	4,5
V	-14,8	-8,1	-10,2	2,1
HV	-13,6	0,1	-3,7	3,8

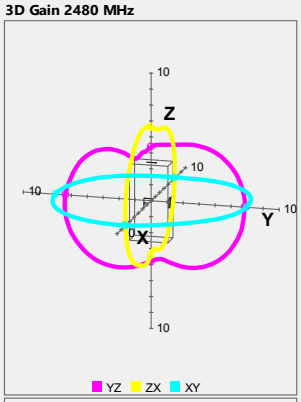
XY Gain 2480 MHz



Gain (dBi)
XY Plane Totals - 2480 MHz

Pol	Min	Max	Avg	Dir
H	-33,8	-11,2	-15,4	4,2
V	-2,7	0,6	-0,3	0,9
HV	-2,2	0,6	-0,2	0,8

3D Gain 2480 MHz



Gain (dBi)
3 Plane Totals - 2480 MHz

Pol	Min	Max	TIG	Dir
HV	-16,5	0,6	-2,4	3,0
HV			57,9%	

[new]

14/04/2020 11.22.44

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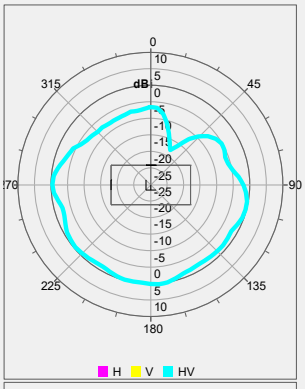
2,4-4,9/5,8 GHz DIPOLE ANTENNA

Part Number 639_200_UFL/2

Patterns

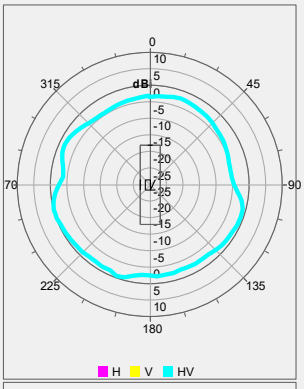
YZ Gain 5100 MHz



Gain (dBi)
YZ Plane Totals - 5100 MHz

Pol	Min	Max	Avg	Dir
H	-21,2	0,2	-3,0	3,2
V	-28,8	-9,4	-15,7	6,3
HV	-17,9	0,3	-2,7	3,0

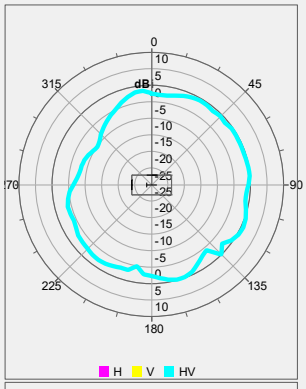
ZX Gain 5100 MHz



Gain (dBi)
ZX Plane Totals - 5100 MHz

Pol	Min	Max	Avg	Dir
H	-21,1	-2,7	-7,1	4,4
V	-18,9	-0,6	-4,1	3,6
HV	-5,2	0,0	-2,3	2,3

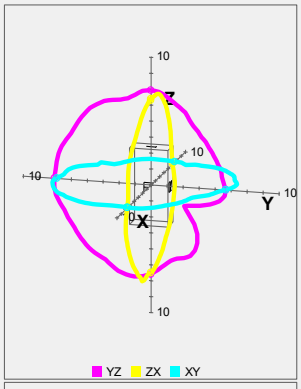
XY Gain 5100 MHz



Gain (dBi)
XY Plane Totals - 5100 MHz

Pol	Min	Max	Avg	Dir
H	-27,0	-4,6	-8,5	3,9
V	-12,3	0,5	-3,5	4,0
HV	-10,1	0,7	-2,3	3,0

3D Gain 5100 MHz



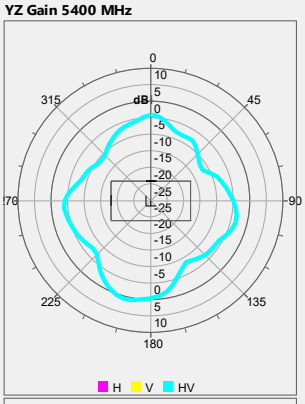
Gain (dBi)
3 Plane Totals - 5100 MHz

Pol	Min	Max	TIG	Dir
HV	-17,9	0,7	-2,5	3,3
HV			55,7%	

[new]

15/04/2020 08.30.20

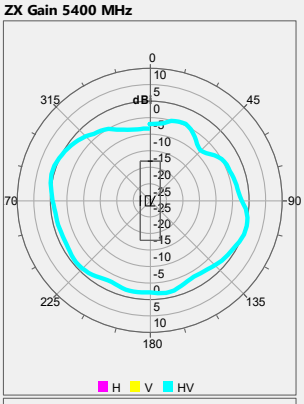
YZ Gain 5400 MHz



Gain (dBi)
YZ Plane Totals - 5400 MHz

Pol	Min	Max	Avg	Dir
H	-30,0	0,7	-5,4	6,2
V	-28,0	-9,4	-15,2	5,9
HV	-11,7	0,9	-5,0	5,9

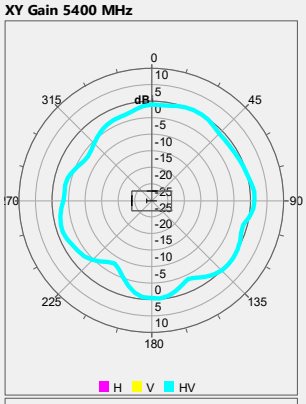
ZX Gain 5400 MHz



Gain (dBi)
ZX Plane Totals - 5400 MHz

Pol	Min	Max	Avg	Dir
H	-27,3	-0,2	-5,1	4,9
V	-21,3	-2,4	-5,6	3,3
HV	-8,5	0,7	-2,4	3,1

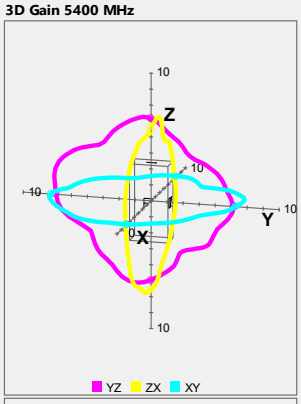
XY Gain 5400 MHz



Gain (dBi)
XY Plane Totals - 5400 MHz

Pol	Min	Max	Avg	Dir
H	-23,0	-4,9	-9,7	4,8
V	-9,5	1,0	-2,5	3,5
HV	-7,9	1,2	-1,7	2,9

3D Gain 5400 MHz



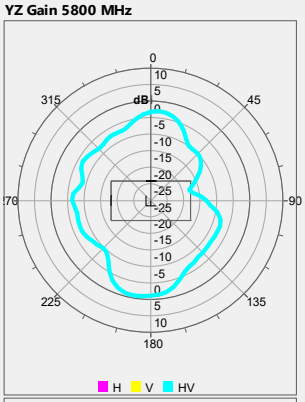
Gain (dBi)
3 Plane Totals - 5400 MHz

Pol	Min	Max	TIG	Dir
HV	-11,7	1,2	-3,2	4,4
HV			47,8%	

[new]

15/04/2020 09.10.48

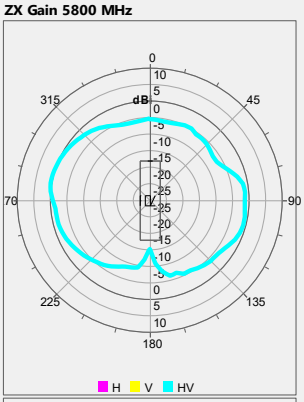
YZ Gain 5800 MHz



Gain (dBi)
YZ Plane Totals - 5800 MHz

Pol	Min	Max	Avg	Dir
H	-26,2	-1,0	-6,4	5,4
V	-29,7	-10,7	-16,5	5,9
HV	-17,8	-0,8	-6,0	5,3

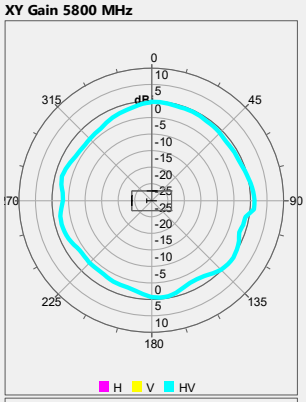
ZX Gain 5800 MHz



Gain (dBi)
ZX Plane Totals - 5800 MHz

Pol	Min	Max	Avg	Dir
H	-26,0	0,0	-5,2	5,2
V	-17,4	-5,6	-8,2	2,6
HV	-15,3	0,4	-3,4	3,8

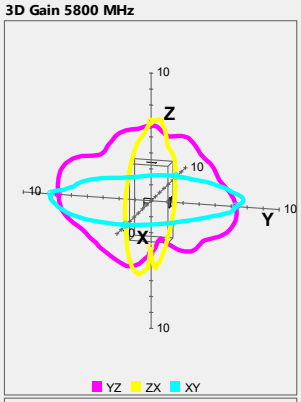
XY Gain 5800 MHz



Gain (dBi)
XY Plane Totals - 5800 MHz

Pol	Min	Max	Avg	Dir
H	-25,1	-5,0	-9,5	4,5
V	-5,4	1,0	-2,2	3,2
HV	-3,9	1,2	-1,5	2,6

3D Gain 5800 MHz



Gain (dBi)
3 Plane Totals - 5800 MHz

Pol	Min	Max	TIG	Dir
HV	-17,8	1,2	-3,6	4,8
HV			43,4%	

[new]

15/04/2020 08.59.56

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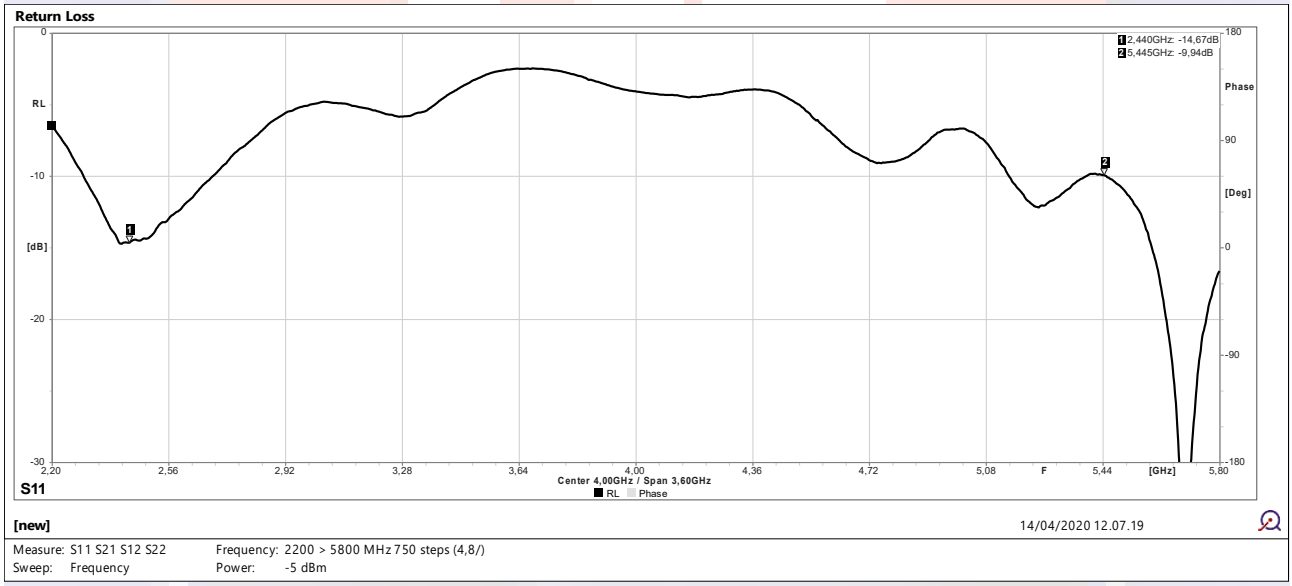
2,4-4,9/5,8 GHz DIPOLE ANTENNA

Part Number 639_200_UFL/2

|s11| diagram



Measure: S11 S21 S12 S22 Frequency: 2200 > 5800 MHz 750 steps (4,8/)
Sweep: Frequency Power: -5 dBm

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