



# GREEN

Broadcasting Solutions

## CIRCULARLY POLARIZED FM BROADCAST ANTENNA

LCX-series





## CIRCULARLY POLARIZED FM BROADCAST ANTENNA

- **General.** The LCX Circularly Polarized Antenna series are designed for FM Broadcast Band ( 87.5 –108 MHz). Each antenna is entirely made with stainless steel and composed of two folded dipoles and a mounting bracket.
- **Broadband.** Suitable for channel or broadband operations with multi-channel combiners.
- **Omni-Directional.** The azimuth pattern is normally circular and can be modified by the mounting structure presence. As an option, the circularity of the horizontal pattern in presence of mounting structure can be factory tested.
- **Antenna systems.** Stacking more antennas it's possible to obtain customized patterns, increase the gain and the power handling capacity according to user requirements. Custom patterns, electrical beam tilt and null fill are available upon request.
- **Disassemblable.** These antennas are disassemblable in order to reduce the shipment and stocking costs.
- **Easy installation.** The standard mounting brackets are designed for instant installation on poles with diameters from 32 mm to 90 mm. Special brackets are available upon request.
- **Water, icing, moisture protection.** The input connector is protected against rain and icing by a special housing. The internal balun is also protected against water, icing and moisture ingress by a sealed housing.
- **State of the art mechanical design.** Employing the finest materials (stainless steel, non-corrosive marine brass, silver plated copper, virgin PTFE) resulting in long life service .
- **Lightning resistance** is guaranteed by the DC ground potential of the entire antenna.

# TECHNICAL CHARACTERISTICS



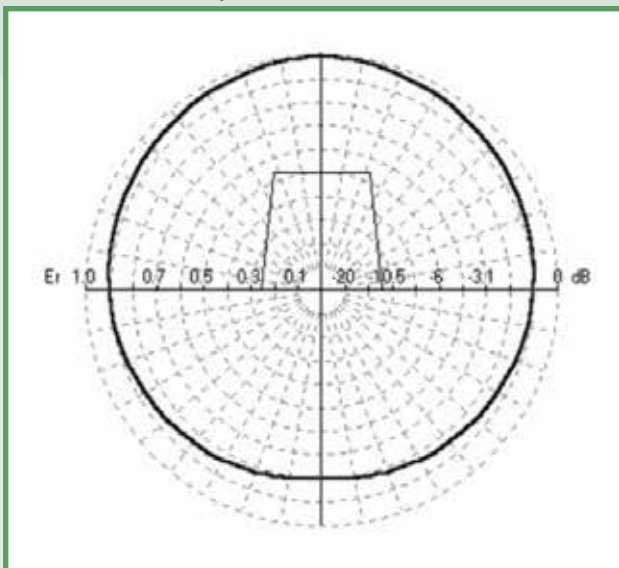
## RF DATA

Frequency Range	87.5 – 108.0 MHz
Bandwidth	Broadband
Polarization	Circular
<b>Connectors:</b>	
LCX 7/16	DIN 7/16"
LCX 7/8	EIA 7/8"
<b>Maximum Power Handling Capability:</b>	
LCX 7/16	1.4 kW
LCX 7/8	3.5 kW
Gain (at mid band, ref. to $\lambda/2$ dipole)	2.15 dBd
VSWR (in the whole band)	< 1.4 : 1
Impedance	50 $\Omega$
<b>Wind load (ref 150 Km/h):</b>	
Frontal	24 Kg
Lateral	38 Kg
Grounding	Via clamps Kg
Vertical Beamwidth (at -3 dB, at mid band)	69°

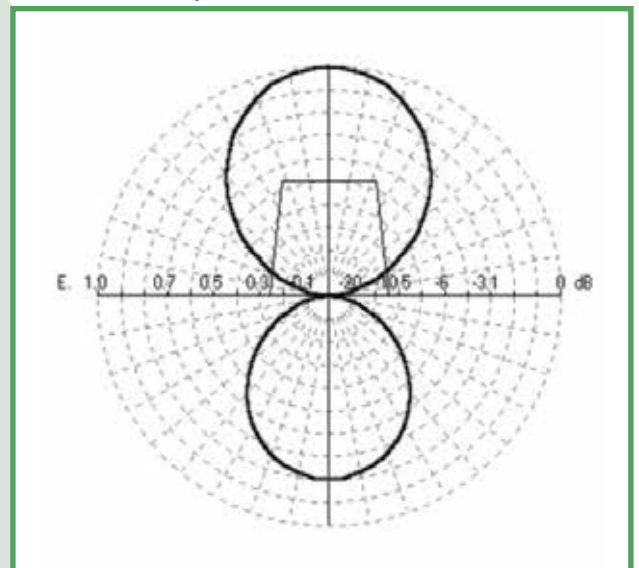
## MECHANICALS

NOTE: Completely detachable to reduce volume and shipping cost	
Materials:	Stainless steel
Pole diameter	32 – 90 mm
Dimensions (HxWxD)	
Mounted	1180x1180x1520 mm
Shipping	220x220x1640 mm
Weight (with pole clamp):	12.8 Kg

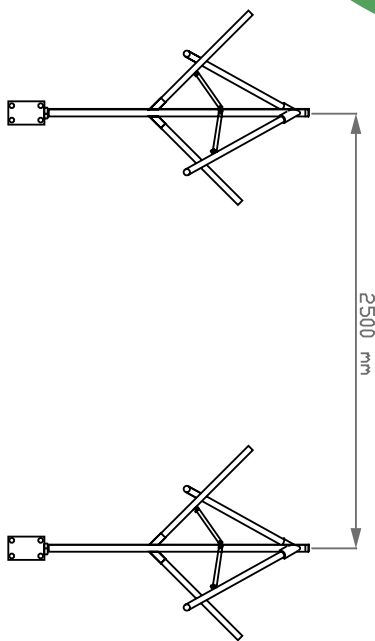
Horizontal pattern



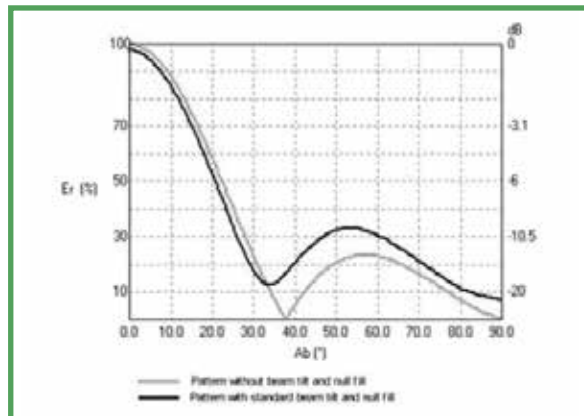
Vertical pattern



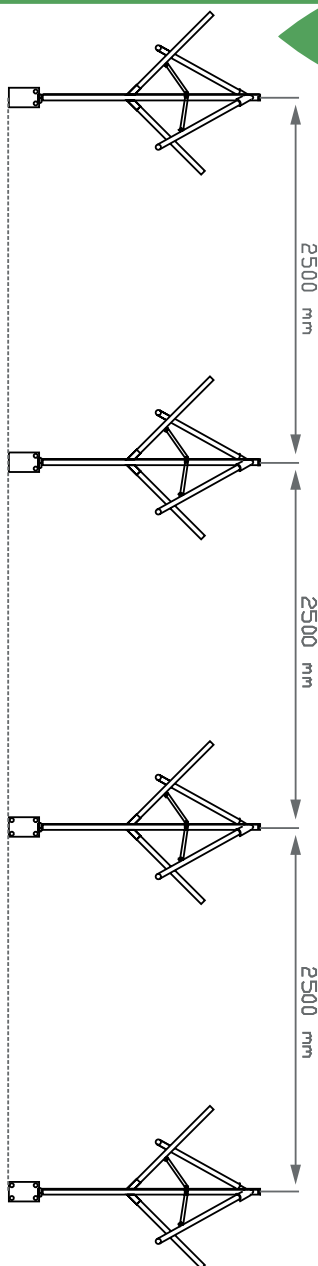
### ANTENNAS ARRANGEMENT



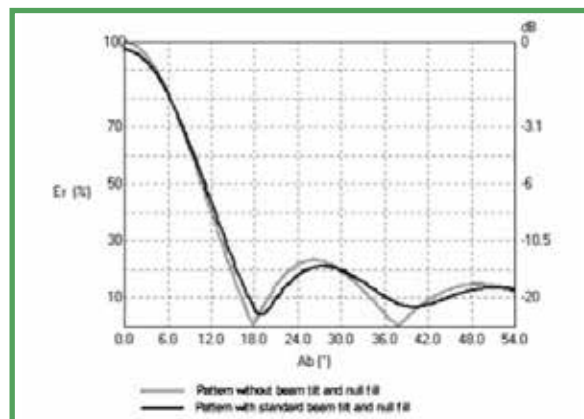
### 2 LCX ANTENNAS -TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN CIRCULAR POLARIZATION



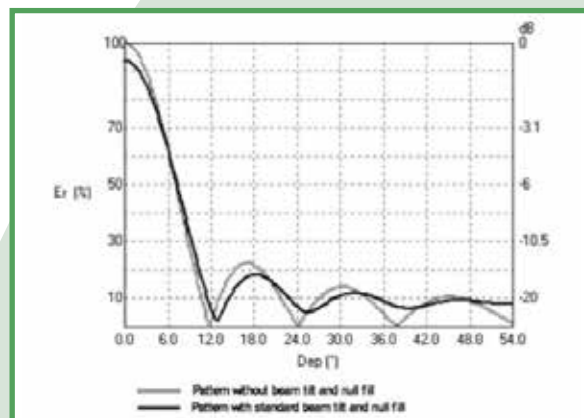
### ANTENNAS ARRANGEMENT



### 4 LCX ANTENNAS -TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN CIRCULAR POLARIZATION



### 6 LCX ANTENNAS -TYPICAL VERTICAL RADIATION PATTERNS AT MID-BAND IN CIRCULAR POLARIZATION



# GENERAL ARRAYS SPECIFICATIONS



MODEL	NUMBER OF ANTENNAS	MAXIMUM POWER (W)	GAIN (dBd)	WEIGHT (Kg)	VERTICAL DIMENSIONS (mt)
LCX 7/16-2	2	2.400	+ 1.7	25.6	3.90
LCX 7/16-3	3	3.600	+ 3.5	38.4	6.40
LCX 7/16-4	4	4.800	+ 4.7	51.2	8.90
LCX 7/16-6	6	7.200	+ 6.5	76.8	12.90
LCX 7/16-8	8	9.600	+ 7.7	102.4	18.90
LCX 7/18-2	2	4.800	+ 1.7	25.6	3.90
LCX 7/18-3	3	7.200	+ 3.5	38.4	6.40
LCX 7/18-4	4	9.600	+ 4.7	51.2	8.90
LCX 7/18-6	6	14.400	+ 6.5	76.8	12.90
LCX 7/18-8	8	19.200	+ 7.7	102.4	18.90



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GREEN B.S. is a trademark of Led Srl  
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