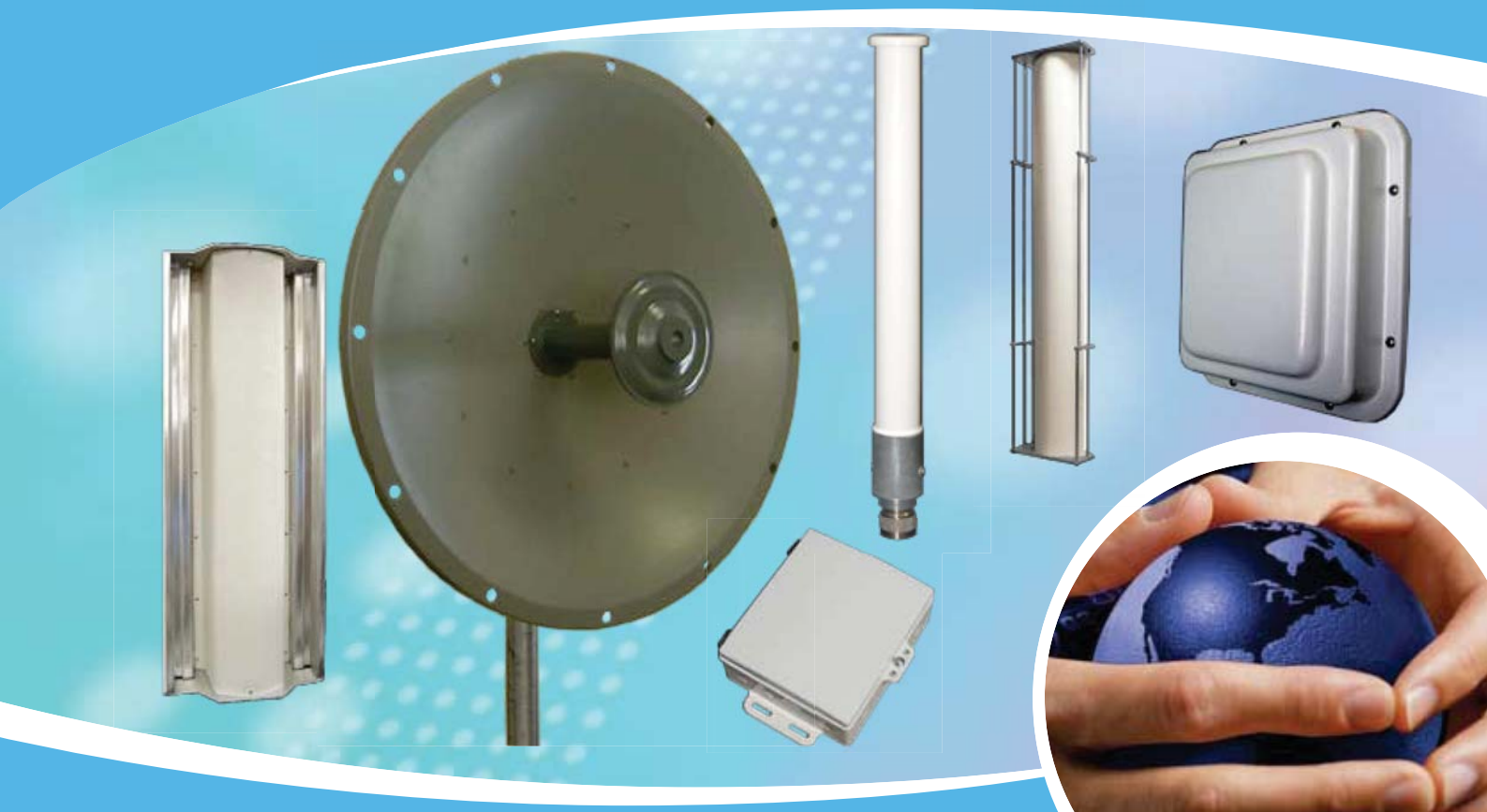
Laird
TECHNOLOGIES®



global solutions :
local support™

WiMax Antennas

Laird Technologies is the world-leader in the design and supply of customized performance-critical products for wireless and other advanced electronic applications. Laird Technologies partners with its customers to help find solutions for applications in various industries such as:

Network Equipment
Telecommunications
Data Communications
Automotive Electronics
Computers
Aerospace
Military
Medical Equipment
Consumer Electronics

Laird Technologies offers its customers unique product solutions, dedication to research and development and a seamless network of manufacturing and customer support facilities located all across the globe.

global solutions : local support .

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Laird Technologies WiMax Antennas

Laird Technologies' world class engineering teams utilize proprietary, state-of-the-art design tools to create antenna products that maximize total system performance and user satisfaction. Laird Technologies' base station, backhaul, fixed and mobile client, vehicular and in-building antennas consistently offer the industries best value proposition. The Wimax base station product line features antennas that easily meet ETSI's most stringent compliance standards while still being competitively priced.

Here are just some of the benefits you will enjoy using Laird Technologies base station sector antennas:

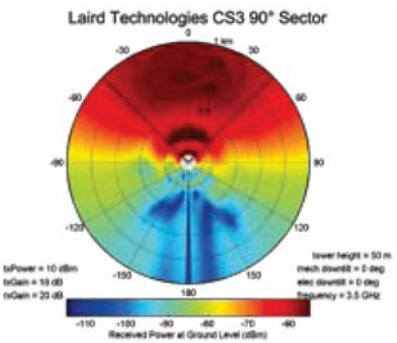
- Maximum spectral efficiency
  - Allows you to reutilize channels in the next over-adjacent sector antenna
- Reduced crosstalk
- Reduced interference, improved S/N ratio, improved C/I ratio
- Most uniform energy distribution across the entire coverage area
  - Reduces system overhead compensating for nulls and hot spots in the coverage area
  - Offers highest quality of service (QOS) and subscriber satisfaction

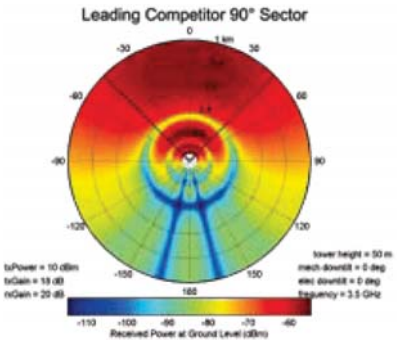
Base Station antennas typically feature maximum null fill to ensure client antennas see consistent gain close to the tower and extending out towards the horizon.

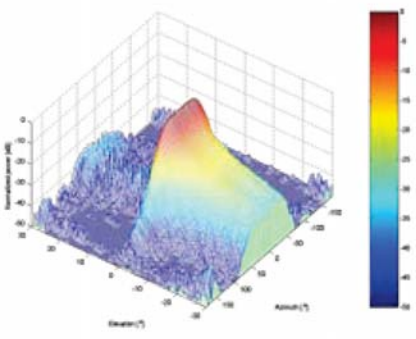
Laird Technologies worldwide engineering teams, using proprietary artificial intelligence antenna design software, create antenna designs with the tightest patterns and highest gain in the most compact package. If custom designs are needed to meet a particular specification or application, the Laird Technologies global design teams are ready to assist you in meeting your specific requirements.

With Laird Technologies' proven expertise in high volume and low cost manufacturing , the product line exhibits a good value/performance ratio. Manufacturing sites located in North America, Asia and Europe offer global support and localized manufacturing to meet specific customer needs.

We have included in this catalog only our most popular WiMax antennas. If you have an antenna requirement that does not appear in this short form catalog, please contact your representative to help find the exact antenna to meet your needs.







Example of coverage uniformity (cosecant^2)

Base Station Antennas

Laird Technologies WiMax Base Station Antennas are available in 700MHz, 2300-2700MHz, 3300-3800MHz and 4900-5850MHz. They come in two basic types; Sectorized and Omnidirectional . The high gain sector antennas are available with horizontal beamwidths of 45, 60, 90 and 120 deg. In addition, there is a field adjustable beamwidth model available for ultimate system flexibility.

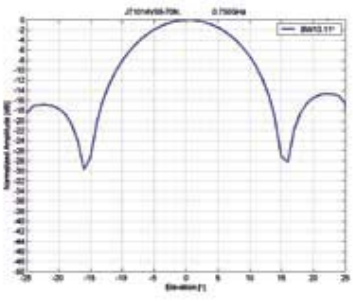
The antennas are capable of handling up to at least 10W of RF power and come standard with an N Female connector. Input Impedance is 50 ohms.

The sector antennas include pole mount tilt brackets which typically accommodate 1.5" to 4" diameter poles while providing at least 10 deg of mechanical downtilt. Typical wind survival rating is 136mph. All antennas are DC grounded for impulse suppression.

Operational Temperature is -40 to +70 deg C.

700MHz 60° Sector Antenna

- 60° Beam-width
- 16dBi gain
- Low sidelobes

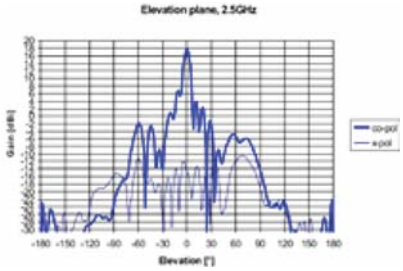


Specifications:	Part Number: J71014V00-N
Frequency Range	710-790 MHz
Gain	16 dBi
VSWR	< 1.5:1
Polarization	Vertical
Azimuth beamwidth	60°
Elevation beamwidth	14°
Sidelobe Supression	> 16dB
Front -to-back Ratio	> 32dB
Dimensions	65" x 13" x 12" (1651 x 330 x 305mm)

ETSI CS Dual Slant 2.5GHz Sector Antenna

- 65° Beamwidth, dual slant 45° polarization
- 17dBi gain, low sidelobes
- Meets ETSI EN 301.525 CS pattern specifications
- Maximum null fill below horizon

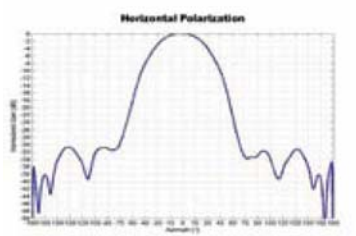
Specifications:	Part Number: J23017S00-65N
Frequency Range	2300-2700 MHz
Gain @ 2.5GHz	17 dBi
VSWR	< 1.8:1
Polarization	+45° and -45°
Port to Port Isolation	>25 dB
Azimuth beamwidth	65°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	> 20dB
Front -to-back Ratio	>35 dB
Dimensions	40" x 7" x 4" (1016 x 178 x 102mm)



ETSI CS Dual Polarity 2.5GHz Sector Antenna

- Available in 60° or 90° beamwidths
- Up to 18dBi gain, low sidelobes
- Meets ETSI EN 301.525 CS pattern specifications
- Maximum null fill below horizon

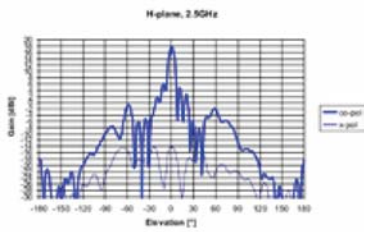
Specifications:	Part Number: J2301xD00-xxN
Frequency Range	2300-2700 MHz
Gain (dBi) @ 2.5GHz	18 (60°), 16 (90°)
VSWR	< 1.8:1
Polarization	Dual : Vertical and Horizontal
Port to Port Isolation	> 25dB
Azimuth beamwidth	60° or 90°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	> 30dB
Front -to-back Ratio	> 30dB
Dimensions	40" x 16" x 8" (1016 x 406 x 203mm)



ETSI CS HPOL 2.5GHz Sector Antenna

- Available in 60° and 90° beamwidths
- Up to 17.5dBi gain, low sidelobes
- Meets ETSI EN 301.525 CS pattern specifications
- Maximum null fill below horizon

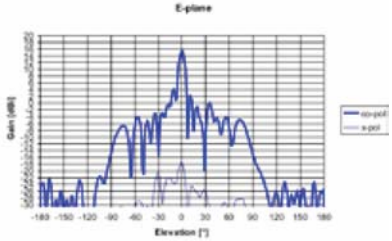
Specifications:	Part Number: J2301xH00-xxN
Frequency Range	2300-2700 MHz
Gain (dBi) @ 2.5GHz	17.5(60°), 16.5 (90°)
VSWR	< 1.8:1
Polarization	Horizontal
Azimuth beamwidth	60° or 90°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	>20dB (60°), >30dB (90°)
Front -to-back Ratio	>30dB (60°), >35dB (90°)
Dimensions	40" x 8" x 4" (1016 x 203 x 102mm)



ETSI CS VPOL 2.5GHz Sector Antenna

- Available in 60°, 90° and 120° beamwidths
- Up to 17.5dbi gain, low sidelobes
- Meets ETSI EN 301.525 CS pattern specifications
- Maximum null fill below horizon

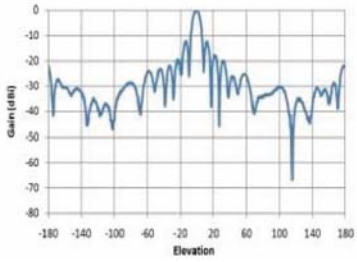
Specifications:	Part Number: J2301xV00-xxN
Frequency Range	2300-2700 MHz
Gain (dBi) @ 2.5GHz	17.5 (60°), 16.5 (90°), 15.5 (120°)
VSWR	< 1.8:1
Polarization	Vertical
Azimuth beamwidth	60°, 90° or 120°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Suppression	>20dB (60°), >28dB (90°), >35dB (120°)
Front -to-back Ratio	>30dB (60°), >35dB (90°), >35dB (120°)
Dimensions	40" x 8" x 4" (1016 x 203 x 102mm)



Standard VPOL 2.5GHz Sector Antenna

- Available in 45°, 60°, 90° and 120° beamwidths
- Up to 20dBi gain
- Stainless steel scissor bracket for up to 2" dia pole

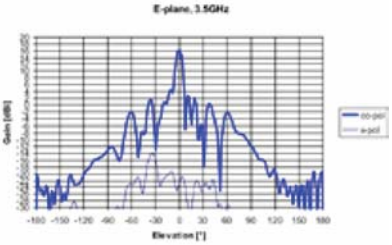
Specifications:	Part Number: SA24-xxx-xx-WB
Frequency Range	2300-2700 MHz
Gain (dBi) @ 2.5GHz	20 (45°), 17 (60°), 17 (90°), 16 (120°)
VSWR	< 1.5:1
Polarization	Vertical
Azimuth beamwidth	45°, 60°, 90° or 120°
Elevation beamwidth	8°
Front -to-back Ratio	> 21 dB
Dimensions	34" x 7" x 3" (864 x 178 x 76mm)



Variable Beam-Width VPOL 3.5GHz Sector Antenna

- Field adjustable beamwidth 45°, 60°, 90° and 120°
- Up to 18.5dBi gain, low sidelobes
- Meets ETSI EN 302.085 CS2 pattern specifications
- Maximum null fill below horizon

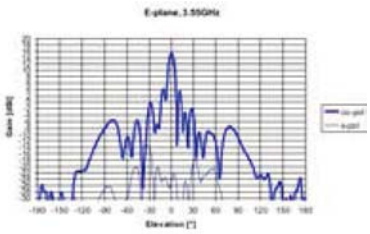
Specifications:	Part Number: J33114V00-AN
Frequency Range	3300-3800 MHz
Gain (dBi) @ 3.5GHz	18.5 (45°), 17.5 (60°), 16 (90°), 15 (120°)
VSWR	< 1.7:1
Polarization	Vertical
Azimuth beamwidth	Adjustable: 45°, 60°, 90°, 120°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	>8dB (45°), >17dB (60°), >26dB (90°), >30dB (120°)
Front -to-back Ratio	>35dB (45°, 60°, 90°), >30dB (120°)
Dimensions	28" x 7" x 3" (711 x 178 x 76mm)



ETSI CS3 High Performance VPOL 3.5GHz Sector

- Available in 60°, 90° or 120° beamwidths
- Up to 17dBi gain, low sidelobes
- Meets ETSI EN 302.085 CS3 pattern specifications
- Maximum null fill below horizon

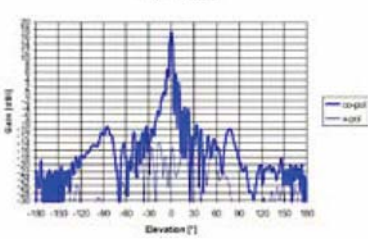
Specifications:	Part Number: J3301xV01-xxxN
Frequency Range	3300-3800 MHz
Gain (dBi) @ 3.5GHz	17 (60°), 16 (90°), 15 (120°)
VSWR	< 1.8:1
Polarization	Vertical
Azimuth beamwidth	60°, 90° or 120°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	>25 (60°), >28 (90°), >35 (120°)
Front -to-back Ratio	>35dB
Dimensions	30" x 6" x 3" (762 x 152 x 76mm)



ETSI CS3 High Gain VPOL 3.5GHz Sector Antenna

- Available in 60°, 90° or 120° beamwidths
- Up to 20dBi gain, low sidelobes
- Meets ETSI EN 302.85 CS3 pattern specifications
- Maximum null fill below horizon

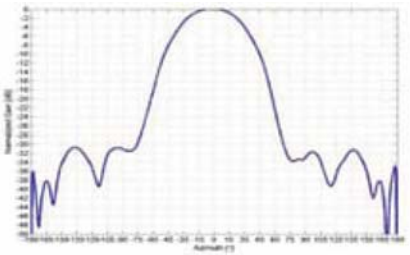
Specifications:	Part Number: J342xxV01-xxxN
Frequency Range	3400-3800 MHz
Gain (dBi)	20 (60°), 18.5 (90°), 17.5 (120°)
VSWR	< 1.7:1
Polarization	Vertical
Azimuth beamwidth	60°, 90° or 120°
Elevation beamwidth	3.5°
Null Fill	Down to -25°
Sidelobe Supression	>25 (60°), >28 (90°), >35 (120°)
Front -to-back Ratio	>35dB
Dimensions	52" x 6" x 3" (1321 x 152 x 76mm)



Dual Polarity 3.5GHz Sector Antenna

- Available 60° & 90° beamwidths
- Up to 18 dBi gain, low sidelobes
- Meets ETSI EN 302.085 CS3 pattern specifications
- Maximum null fill below horizon

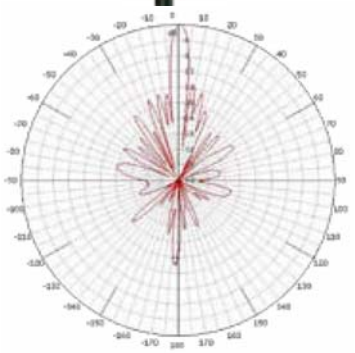
Specifications:	Part Number: J3301xD00-xxN
Frequency Range	3300-3800 MHz
Gain (dBi) @ 3.5GHz	18 (60°), 16 (90°)
VSWR	< 1.8:1
Polarization	Dual : Vertical and Horizontal
Azimuth beamwidth	60° or 90°
Elevation beamwidth	7°
Null Fill	Down to -25°
Sidelobe Supression	> 30 dB
Front -to-back Ratio	> 20 dB
Dimensions	28" x 11" x 6" (711 x 279 x 152mm)



Standard HPOL 3.5GHz Sector Antenna

- 90° Beamwidth
- 16dBi Gain
- Stainless steel scissor bracket

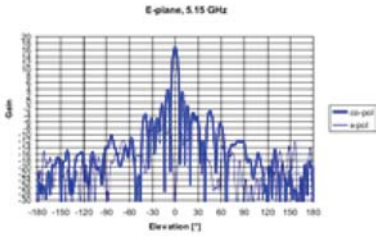
Specifications:	Part Number: SAH35-90-16
Frequency Range	3400-3600 MHz
Gain @ 3.5GHz	16 dBi
VSWR	< 1.5:1
Polarization	Horizontal
Azimuth beamwidth	90°
Elevation beamwidth	6.5°
Front -to-back Ratio	> 16 dB
Dimensions	36" x 5" x 3" (914 x 127 x 76mm)



ETSI CS1 VPOL 5GHz Sector Antenna

- 90° beamwidth
- 16.5dBi gain
- Meets ETSI EN 302.085 CS1 pattern specifications
- Maximum null fill below horizon

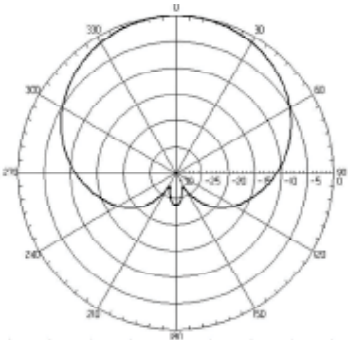
Specifications:	Part Number: S4901790PNF
Frequency Range	4900-5850 MHz
Gain	16.5 dBi
VSWR	< 2.0:1
Polarization	Vertical
Azimuth beamwidth	90°
Elevation beamwidth	5.5°
Null Fill	Down to -25°
Sidelobe Supression	>20dB
Front -to-back Ratio	>25dB
Dimensions	25" x 2" x 3" (635 x 51 x 76mm)



Standard HPOL 5GHz Sector Antenna

- Available in 90° and 120° beamwidths
- Up to 17dBi gain
- Stainless steel tilt bracket for up to 2" dia pole

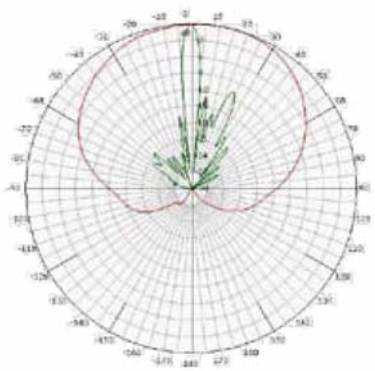
Specifications:	Part Number: SAH58-xxx-xx-WB
Frequency Range	5400-5850 MHz
Gain (dBi)	17 (90°), 16 (120°)
VSWR	< 1.5:1
Polarization	Horizontal
Azimuth beamwidth	90° or 120°
Elevation beamwidth	6°
Front -to-back Ratio	> 25 dB
Dimensions	22" x 5" x 3" (559 x 127 x 76mm)



Standard VPOL 5GHz Sector Antenna

- Available in 90° and 120° beamwidths
- Up to 17dBi gain
- Stainless steel tilt bracket for up to 2" dipole

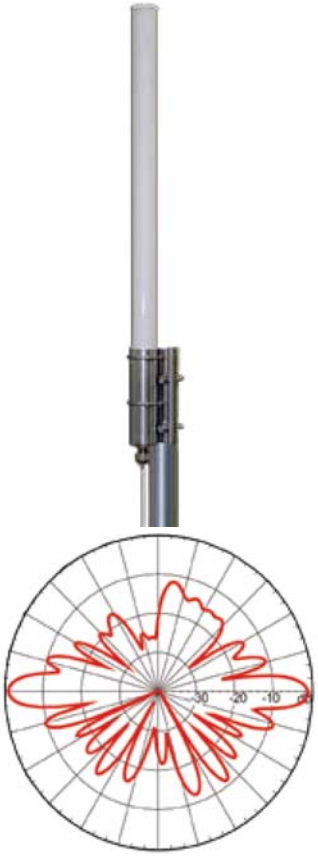
Specifications:	Part Number: SA58-xxx-xx-WB
Frequency Range	5470-5850 MHz
Gain (dBi)	17 (90°), 16 (120°)
VSWR	< 1.5:1
Polarization	Vertical
Azimuth beamwidth	90° or 120°
Elevation beamwidth	7°
Front -to-back Ratio	> 21 dB
Dimensions	22" x 5" x 3" (559 x 127 x 76mm)



Wide Band VPOL 3.5GHz Omni Antenna

- 9 dBi symmetrical gain
- Slim profile (1.75") and light weight (1.2 lb)
- 36" Pigtail cable with various connector choices

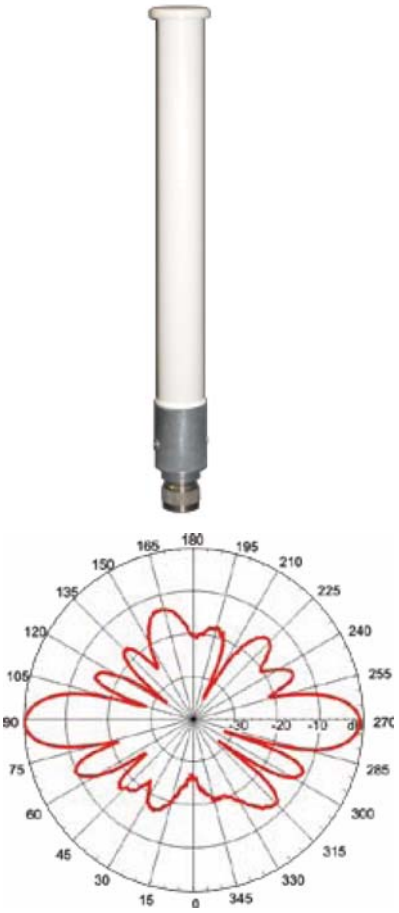
Specifications:	Part Number: S3307BPNF
Frequency Range	3300-3800 MHz
Gain	9 dBi
VSWR	< 1.5:1
Polarization	Vertical
Beamwidth	360° (H), 8° (V)
Dimensions	28" x 1.75" (711 x 45mm)



Wide Band VPOL 5GHz Omni Antenna

- Available in 8dBi and 10dBi gains
- Slim profile (1") and light weight (.5 lb)
- N Male connector for direct connect to equipment

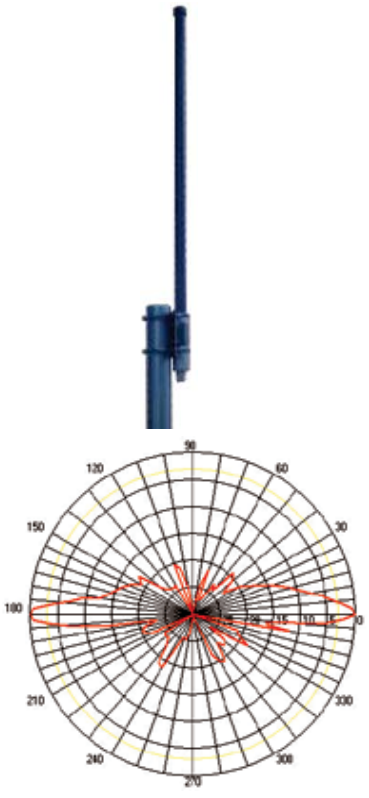
Specifications:	Part Number: S49xxWB
Frequency Range	4900-5850 MHz
Gain	8 dBi or 10 dBi
VSWR	< 2.0:1
Polarization	Vertical
Beamwidth	16° (8dBi), 8° (10dBi)
Dimensions	8dBi = 12" x 1" (305 x 25mm) 10dBi = 20" x 1" (508 x 25mm)



High Gain VPOL 5GHz Omni Antenna

- 12dBi gain
- N Male or N Female connector

Specifications:	Part Number: OD58-12
Frequency Range	5470-5850 MHz
Gain	12 dBi
VSWR	< 1.5:1
Polarization	Vertical
Beamwidth	360° (H) , 7° (V)
Dimensions	28" x 1" (711 x 25mm)



Backhaul Antennas

Laird Technologies WiMax backhaul antennas are available in 3300-3800MHz and 4900-5850MHz. They come in two basic types; Solid Dish and Grid Dish. Backhaul antennas are used for long distance point to point links of high bandwidth data streams. The solid dish antennas are available in single polarity or dual polarity and a 2' diameter or 3' diameter dish depending on customer gain requirements. There is a radome available for added protection from the elements and also to reduce wind loading.

The advantages of the solid dish include better front-to-back and reduced side lobes for better immunity to interference. The 5GHz solid dishes meet the strictest ETSI TS5 pattern specifications. The advantage of the grid dish is lighter weight, very low wind loading and lower cost.

The antennas are capable of handling up to at least 100W of RF power and typically come standard with an N Female connector. Input Impedance is 50 ohms.

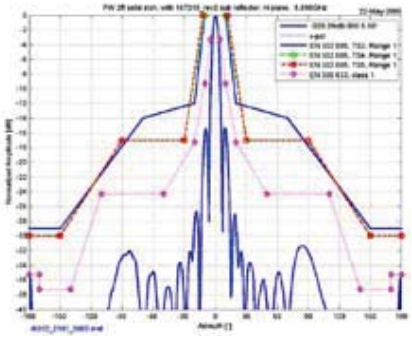
The antennas include pole mount tilt brackets which typically accommodate 1.5" to 4" diameter poles while providing at least 10 deg of mechanical downtilt. Typical wind survival rating is 125mph. All antennas are DC Grounded for impulse suppression.

Operational Temperature is -40 to +70 deg C.

ETSI TS5 5GHz Wide Band Solid Dish Antenna

- 29 or 32 dBi gain
- Meets strictest ETSI EN 302.085 TS5 pattern specifications
- Meets ETSI EN 300.833 class 1 specifications
- Single polarity (H or V) and dual polarity (H and V)

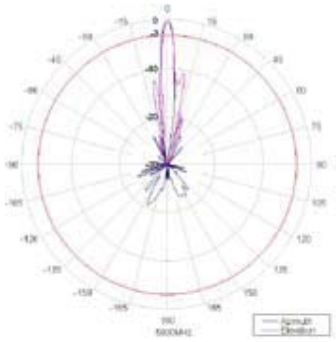
Specifications:	Part Number: HDDA5W-xx-xx
Frequency Range	4940-5850 MHz
Gain (dBi)	29 (2'), 32 (3')
VSWR	< 1.8:1
Polarization	Vertical or Horizontal or Dual Polarity
Beamwidth	6° (29dBi), 4° (32dBi)
Sidelobe Suppression	> 32 dB
Front -to-back Ratio	> 32 dB
Cross Pole Rejection	> 32 dB
Dimensions (dia)	29dBi = 26" (660mm), 32dBi = 37"(940mm)



5GHz Wide Band Grid Dish Antenna

- 21. 25 or 28 dbi gain
- Horizontal or vertical polarity
- Patented ultra low wind loading design

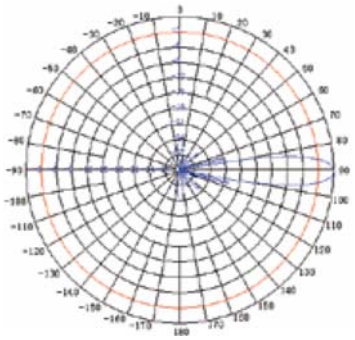
Specifications:	Part Number: GD5W-xx
Frequency Range	4940-5850 MHz
Gain (dBi)	21 (1'), 25 (2'), 28 (3')
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	10° (21dBi), 6° (25dBi), 4° (28dBi)
Front -to-back Ratio	20 dB Typ
Dimensions	21dBi = 12" x 16" (305 x 406mm) 25dBi = 17" x 24" (419 x 610mm) 28dBi = 29" x 36" (724 x 914mm)



3.5GHz Solid Dish Antenna

- 25 or 28 dBi gain
- Horizontal or vertical polarity
- Low side lobes and good front-to-back ratio

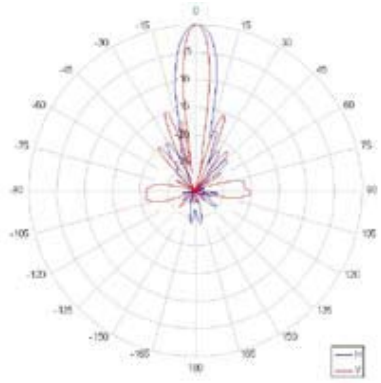
Specifications:	Part Number: DA35-xx
Frequency Range	3300-3600 MHz
Gain (dBi)	25 (2'), 28 (3')
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	10° (25dBi), 8° (28dBi)
Sidelobe Suppression	> 20 dB
Front -to-back Ratio	> 32 dB
Cross Pole Rejection	> 28 dB
Dimensions (dia)	25dBi = 26" (660mm), 28dBi = 37"(940mm)



3.5GHz Grid Dish Antenna

- 17, 20 or 25 dBi gain
- Horizontal or vertical polarity
- Patented ultra low wind loading design

Specifications:	Part Number: GD35-xx
Frequency Range	3400-3600 MHz
Gain (dBi)	17 (1'), 20 (2'), 25 (3')
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	15° (17dBi), 10° (20dBi), 7° (25dBi)
Front -to-back Ratio	20 dB Typ
Dimensions	17dBi = 12" x 16" (305 x 406mm) 20dBi = 17" x 24" (419 x 610mm) 25dBi = 29" x 36" (724 x 914mm)



Notes:

Client Antennas

Laird Technologies WiMax client antennas are available in 700MHz, 2300-2700MHz, 3300-3800MHz and 4900-5850MHz. Client antennas are used to connect a remote site, such as a business or home, to a base station. Some features of client antennas are:

- Indoor or outdoor mounting
- Aesthetically pleasing design
- Low wind loading

The client antennas from Laird Technologies offer the customer a wide variety of options.

The antennas are capable of handling up to at least 10W of RF power and typically come standard with a pigtail and a variety of connector options to connect to various client radios. Input Impedance is 50 ohms.

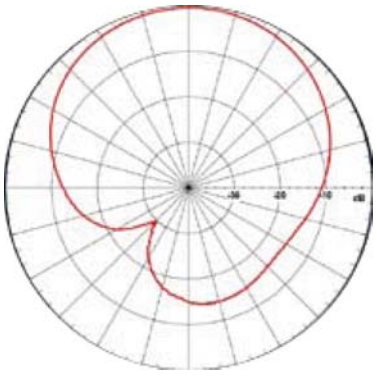
The antennas include pole mount tilt brackets which typically accommodate 1.5" to 2" diameter poles while providing at least 10 deg of mechanical downtilt. Wall mount brackets are also available for mounting indoors. Typical wind survival rating is 125mph. All antennas are DC Grounded for impulse suppression.

Operational Temperature is -40 to +70 deg C.

700MHz 6dBi Panel Antenna

- 6 dBi gain in a small form factor
- Articulating suction cup window/wall mount
- Horizontal or vertical polarity
- Unlimited variety of pigtail and connector options

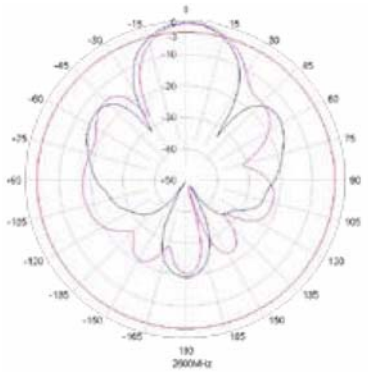
Specifications:	Part Number: S7006PS
Frequency Range	710-750 MHz
Gain	6 dBi
VSWR	< 1.7:1
Polarization	Vertical or Horizontal
Beamwidth	80°
Dimensions	7" x 7" x 1.3" (178 x 178 x 33mm)



2.5GHz Wide Band Radio Compartment Panel

- 15 dBi gain RooTenna®
- Waterproof compartment for radio electronics
- Horizontal or vertical polarity
- All common connector types supported

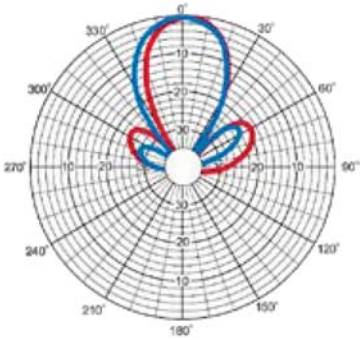
Specifications:	Part Number: R2T24LW-15-xxxx
Frequency Range	2300-2700 MHz
Gain	15 dBi
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	30°
Front -to-back Ratio	> 20 dB
Radio Compartment	9" x 9" x 1.5" (229 x 229 x 38mm)
Outside Dimensions	11" x11" x 3" (279 x 279 x 76mm)



3.5GHz Panel Antenna

- 15dBi gain
- Wall mount – indoor or outdoor
- 12" pigtail with N female connector

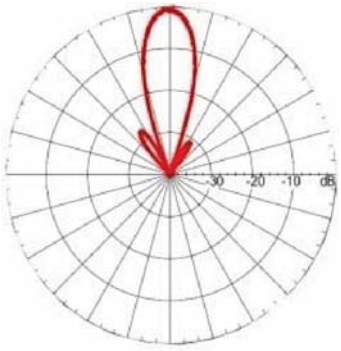
Specifications:	Part Number: S34015P
Frequency Range	3400-3600 MHz
Gain	15 dBi
VSWR	< 1.5:1
Polarization	Vertical
Beamwidth	30°
Front -to-back Ratio	> 20 dB
Dimensions	6" x 6" x 1.25" (152 x 152 x 32)



3.5GHz High Gain Panel Antenna

- 17dBi gain
- Wall mount – indoor or outdoor
- 12" pigtail with N female connector

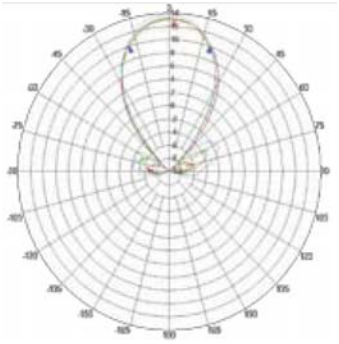
Specifications:	Part Number: S34017P
Frequency Range	3400-3600 MHz
Gain	17 dBi
VSWR	< 1.5:1
Polarization	Vertical
Beamwidth	16°
Front -to-back Ratio	> 35 dB
Dimensions	17" x 17" x 1.25" (152 x 152 x 32)



3.5GHz Panel Antenna

- 13 dBi gain
- Horizontal or vertical polarity
- Pole or wall mount

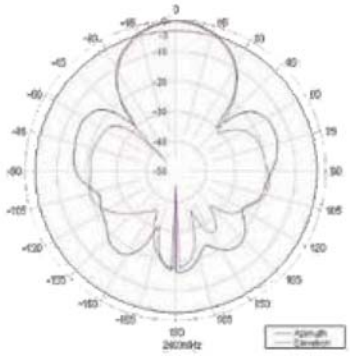
Specifications:	Part Number: PA35-13
Frequency Range	3400-3600 MHz
Gain	13 dBi
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	35°
Front -to-back Ratio	> 20 dB
Dimensions	7.5" x 7.5" x 0.8" (190 x 190 x 20mm)



Die Cast Enclosure Panel Antenna

- Available in 2400-2700, 3300-3800 and 4940-5850MHz
- NEMA 6 waterproof compartment for radio electronics
- All common connector types supported
- Pole or wall mount
- Dual band 2.4/5.8GHz model also available

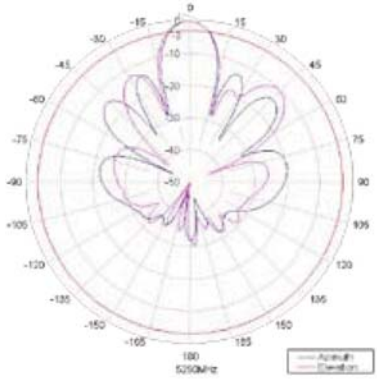
Specifications:	Part Number: DCE-ANT-xxxx-xxxx
Frequency Range	2400-2700, 3300-3800, 4940-5850 MHz
Gain (dBi)	12 (2.5GHz), 16 (3.5GHz), 19 (5GHz)
VSWR	< 1.5:1
Polarization	Vertical
Interior Space	7.125" x 6.125" x 2" (181 x 156 x 51mm)
Outside Dimensions	10" x 7.1" x 2.25" (254 x 180 x 57mm)



5GHz Wide Band Radio Compartment Panel

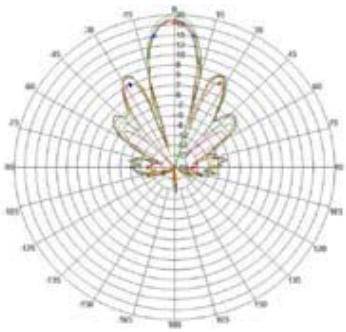
- 19 dBi gain RooTenna®
- Waterproof compartment for radio electronics
- Horizontal or vertical polarity
- All common connector types supported
- Dual band 2.4/5.8GHz model also available

Specifications:	Part Number: R2T58LW-19-xxxx
Frequency Range	4940-5850 MHz
Gain	19 dBi
VSWR	< 1.5:1
Polarization	Vertical or Horizontal
Beamwidth	15°
Front -to-back Ratio	> 25 dB
Radio Compartment	9" x 9" x 1.5" (229 x 229 x 38mm)
Outside Dimensions	11" x11" x 3" (279 x 279 x 76mm)



5GHz Panel Antenna

- 19 or 24 dBi gain
- Horizontal or vertical polarity
- Pole or wall mount



Specifications:	Part Number: PA58-xx
Frequency Range	5150-5850 MHz
Gain	19 dBi or 24 dBi
VSWR	< 2.0:1
Polarization	Vertical or Horizontal
Beamwidth	16° (19dBi), 8° (24dBi)
Front -to-back Ratio	> 30 dB
Dimensions	19dBi = 7.5" x 7.5" x 0.8" (190 x 190 x 20) 24dBi = 15" x 15" x 0.8" (390 x 371 x 21)

Notes:

In-Building Antennas

Laird Technologies offers a comprehensive line of WLAN and other in-building antennas including antennas specifically designed for RFID applications. Many of the in-building antennas are WiMax ready with features like:

- Frequencies from 700MHz to 6GHz
- Polarization diversity, spatial diversity
- Dual band , tri-band and ultra wide band
- Beamforming antennas
- Omnidirectional and directional

Vehicular Antennas

Laird Technologies offers a complete line of vehicular antennas for almost any frequency range. The antennas are rugged and aerodynamic and perfectly suited for commercial, public safety and military applications. Types are available that do not require a vehicle ground plane.

- Mobile antennas from 100MHz to 6GHz
- Typically 3dBi gain
- Dual band and tri-band models
- NMO mounts, magnetic or permanent mounts
- Patented Phantom®, Phantom Elite® and traditional mobile
- GPS antennas

Accessories

Laird Technologies accessories are the perfect complement to our antenna systems. Cable assemblies, surge suppressors, lightning arrestors, POE inserters and splitters, wall and rooftop antenna mounts , connector adapters and die cast aluminum enclosures are available.

Patented Field Replaceable Ethernet Connector System

- Part number RJ45-ECS
- IP67 rated

Power over Ethernet (POE) Inserters and Splitters

- 16W to 50W models, many different voltages available
- Built in surge supression
- 802.3af compatible

Lightning Arrestors

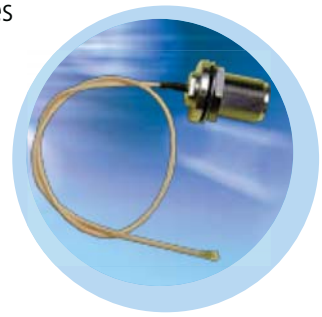
- Gas discharge and ¼ wave DC ground
- Multiple strike capability
- Wide band models DC-6000MHz
- Insertion loss 0.3dB max

Ethernet Surge Supressors

- Compatible with POE equipment
- Protects data and DC power lines

Cable Assemblies

- Standard and custom assemblies
- Low insertion loss
- Qualified to 6GHz

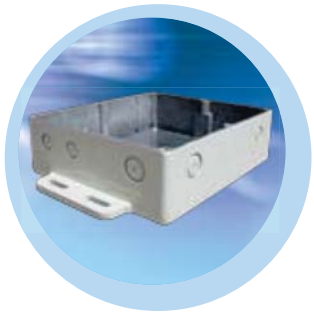


Wall and Roof Antenna Mounts

- Perfect for CPE mounting
- Fixed wall mount
- Adjustable angle roof/wall mount

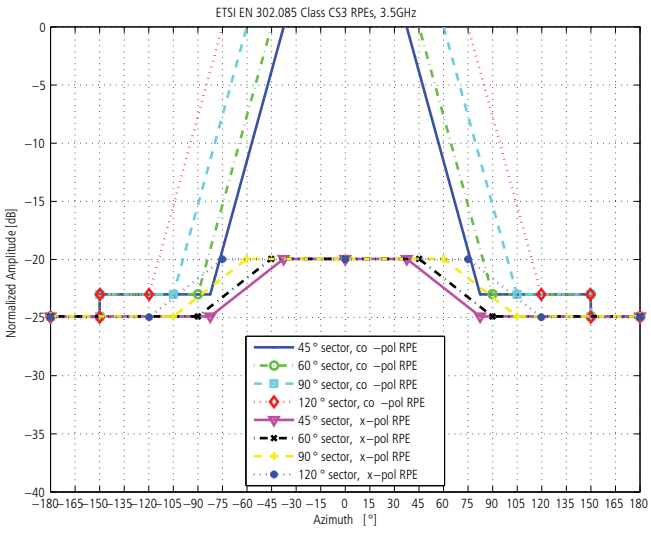
Die Cast Enclosures

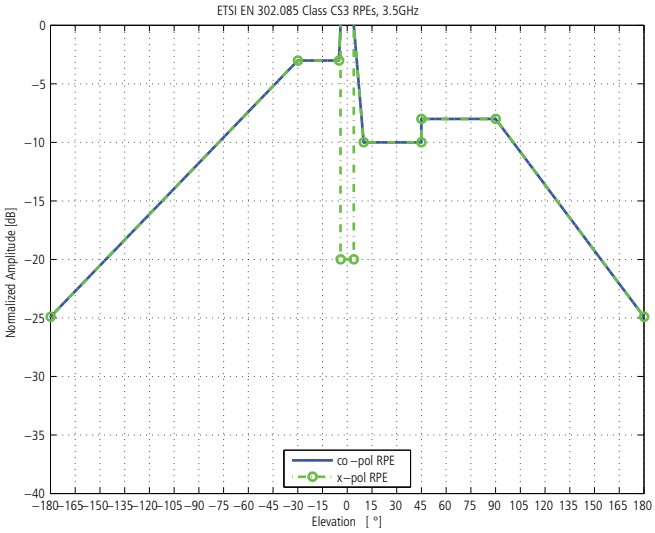
- Perfect for housing outdoor electronics
- Multiple engineered knockouts for flexibility
- NEMA 6 rated

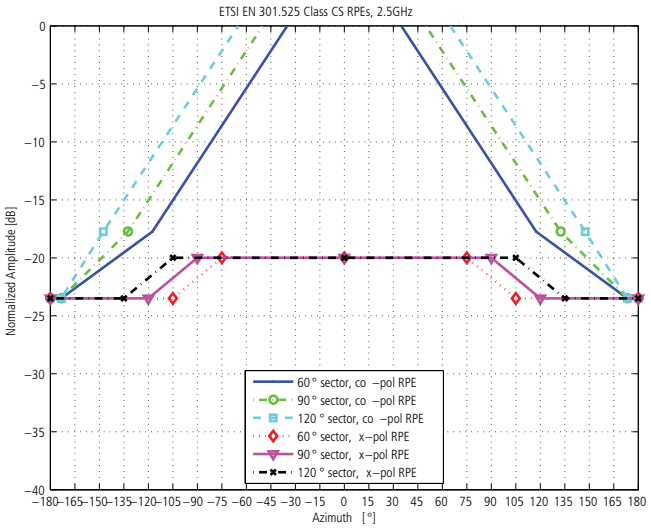


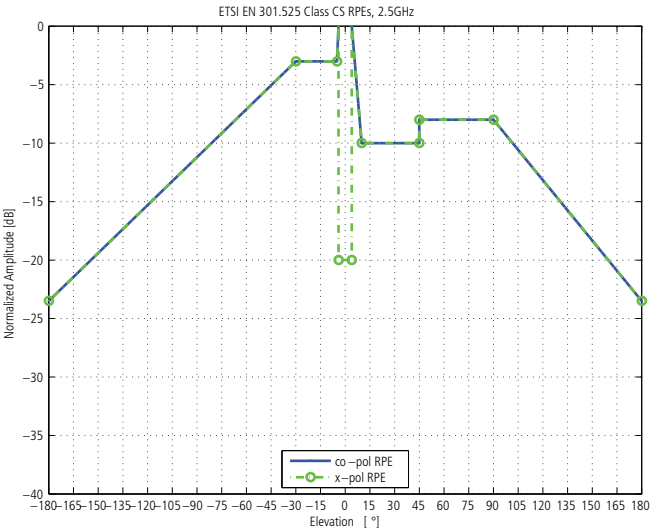
Application Notes

Examples of ETSI Radiation Pattern Envelopes (RPE)









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Laird Technologies partners with its customers to help find solutions for applications in various industries such as aerospace, automotive electronics, computer, consumer electronics, data communications, medical equipment, military, network equipment and telecommunications.

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