



Smart Technology. Delivered.™

Enterprise & Small Office Antenna Solutions

Laird designs and manufactures customized, performance-critical products for wireless and other advanced electronics applications.





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About Laird

Laird is a global technology business focused on enabling wireless communication and smart systems, and providing components and systems that protect electronics. Laird operates through two divisions, Wireless Systems and Performance Materials. Wireless Systems solutions include antenna systems, embedded wireless modules, telematics products and wireless automation and control solutions. Performance Materials solutions include electromagnetic interference shielding, thermal management and signal integrity products. As a leader in the design, supply and support of innovative technology, our products allow people, organisations, machines and applications to connect effectively, helping to build a world where smart technology transforms the way of life. Custom products are supplied to major sectors of the electronics industry including the handset, telecommunications, IT, automotive, public safety, consumer, medical, rail, mining and industrial markets. Providing value and differentiation to our customers through innovation, reliable fulfilment and speed, Laird PLC is listed and headquartered in London, and employs over 9,000 people in more than 58 facilities located in 18 countries.

A Brief Introduction to WLAN

WLAN is a short-range computer-to-computer wireless data communications network that provides a connection to the Internet through an access point. The wireless network presents the user with wireless access, along with the ability to be mobile within the local coverage area while still being connected to the network.

Depend on Laird

Laird Enterprise and Small Office antennas are particularly applicable for environments where aesthetics and wideangle coverage are necessary for successful wireless deployment. Their surprisingly small size allows the antennas to be hidden almost anywhere, providing an invisible solution for most applications. Some benefits of using Laird's Enterprise and Small Office antennas include:

- Uniformity of coverage pattern
- Multi-band operation
- Spatial and polarization diversity
- Small packaging

External Antennas

Indoor/Outdoor

These antennas are designed for WLAN access point system applications, and can be used in either indoor or outdoor environments.



• S2403BPXa



• S24493BPX



• S2307MP



• S51514WP



• SR2405135D



• Antenna Portable Vehicular EXR2400-TNRP

PART NUMBER	FREQUENCY (MHz)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
Omnidirectional Stick Antennas									
S2403BPX	2.4- 2.5 GHz	5.2	<1.5:1	Vertical	360	32	Beam, mast, ceiling	292 x 25	Multiple choices (pigtail)
S2403BP	2.4- 2.5 GHz	5.2	<1.5:1	Vertical	360	38	Mast	292 x 25	Multiple choices (pigtail)
S2406BP	2.4- 2.5 GHz	8	<1.5:1	Vertical	360	13	Mast	630 x 25	Multiple choices (pigtail)
S2406BF	2.4-2.5 GHz	8	<1.5:1	Vertical	360	14	Direct	514 x 23	N(m), N(f)
S5153WBPX	5.1-5.85 GHz	6	2:1	Vertical	360	17	Beam, mast, ceiling	292 x 25	Multiple choices (pigtail)
S5158WBPX	5.1-5.85 GHz	10	2:1	Vertical	360	8	Beam, mast, ceiling	490 x 25	Multiple choices (pigtail)
S4906WBF	4.9-5.85 GHz	8	2:1	Vertical	360	16	Direct	280 x25	N(m), N(f)
S4908WBF	4.9-5.85 GHz	10	2:1	Vertical	360	8	Direct	495 x 25	N(m), N(f)
S24493BPX	2.4-2.4 & 4.9-5.85 GHz	6/7	2:1	Vertical	360	25/17	Beam, mast, ceiling	630 x 25	Multiple choices (pigtail)
S24493WBF	2.4-2.4 & 4.9-5.85 GHz	6/7	2:1	Vertical	360	25/17	Direct	655 x 25	N(m), N(f)
S24512BPX	2.4-2.4 & 4.9-5.85 GHz	3/6	2:1	Vertical	360	50/18	Beam, mast, ceiling	245 x 25	Multiple choices (pigtail)
OC51505H	5.150-5.875 GHz	5	2:1	Horizontal	360	29	Direct	200 x25	N(m), N(f)
OC51505	5.150-5.875 GHz	5	2:1	Vertical	360	29	Direct	200 x 25	N(m), N(f)
OC51510H	5.150-5.875 GHz	10	2:1	Horizontal	360	9.5	Direct	451 x 25	N(m), N(f)
OC24006H	2.4-2.5 GHz	6	2:1	Horizontal	360	25	Direct	328 x 25	N(m), N(f)
OC24005	2.4-2.5 GHz	5	1.7:1	Vertical	360	30	Direct	296 x 25	N(m), N(f)
Directional Panel Antennas									
S2307MP	2.4- 2.5 GHz	7.5	1.5:1	Vertical	65	60	Wall, mast	144 x 97 x 38	Multiple choices (pigtail)
S2408P	2.4- 2.5 GHz	8	<1.5:1	Vertical	65	60	Wall	152 x 152 x 32	Multiple choices (pigtail)
S2401240P	2.4- 2.5 GHz	12	<1.5:1	Vertical	40	35	Wall	152 x 152 x 32	Multiple choices (pigtail)
S51514WP	5.15-5.875 GHz	14	2:1	Vertical	31	27	Wall, mast	102 x 102 x 35	Multiple choices (pigtail)
S49014WP	4.9-5.99 GHz	14	2:1	Vertical	29	26	Wall, mast	102 x 102 x 35	Multiple choices (pigtail)
S24497P	2.4-2.5 & 4.9-5.85 GHz	7	<2.5:1	Vertical	68	66	Wall, mast	102 x 102 x 35	Multiple choices (pigtail)
PDQ244915	2.4-2.5 & 4.9-5.95 GHz	10.7/13.4	<1.5:1/ <2.0:1	2-Ports Vertical 2-Ports Horizontal	V-Pol 48/21 H-Pol 50/21	V-Pol 48/18 H-Pol 47/27	Wall, mast	373 x 411.4 x 35.8	4x- Type N-Female
Directional Sector Antennas									
SR2405135D	2.4- 2.5 GHz	5	<1.5:1	Vertical	135	55	Wall, mast	152 x 76 x 50	Multiple choices (pigtail)
S240790P	2.4- 2.5 GHz	7	<1.5:1	Vertical	90	60	Wall, mast	155 x 118 x 25	Multiple choices (pigtail)
SR24011120D	2.4- 2.5 GHz	11	<1.5:1	Vertical	120	13	Wall	76 x 584 x 51	Multiple choices (pigtail)
S2401290P	2.4- 2.5 GHz	12	2:1	Vertical	90	10	Wall	80 x 656 x 30	Multiple choices (pigtail)
SR49120DA	4.9-5.9 GHz	11	2:1	Vertical	120	15	Wall, mast	26 x 242 x 26	Multiple choices (pigtail)
SR249120D	—	5	2:1	Vertical	120	65	Wall	55 x 131 x 35	Multiple choices (pigtail)
Dipole Antennas									
WTS series	2.4-2.5 & 4.9-5.8 GHz	2.1/2.6	2:1	Linear	360	—	Direct	95 x 9.3	Multiple choices
WTC series	2.4-2.5 & 4.9-6 GHz	2/3.7	<2:1	Linear	360	—	Direct	100 x 11	Multiple choices
WCR series	2.4- 2.5 GHz	1-2	<2:1	Linear	360	—	Direct	100 x 11	Multiple choices
WRR Series	2.4- 2.5 GHz	1.3	<2:1	Linear	360	—	Direct	100 x 11	Multiple choices
WTL series (low cost dipole)	2.4-2.5 & 4.9-5.85 GHz	2.6	<2:1	Linear	360	—	Direct	96 x 10	Multiple choices
EXR2400 series	2.4- 2.5 GHz	2.6	<2:1	Linear	360	—	Direct	140	Multiple choices
Heptaband series	824-960 MHz, 1.575, 1.71-2.17, 2.4-2.5 GHz	1-3	<2.5:1	Linear	360	—	Direct	161 x 9.3	Multiple choices



External Antennas

Indoor

WLAN indoor antennas that have a uniformity of pattern wireless signal, multi-band operation, spatial and polarization diversity, small and aesthetic packaging, multiple connector choices, as well as UL plenum-rated cable and materials.



• S2403BH



• ibw ifd2450
Microsphere
Diversity

PART NUMBER	FREQUENCY (MHZ)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
Omnidirectional Stick Antennas									
S2403BH	2.4- 2.5 GHz	5.2	<1.5:1	Vertical	360	38	Mast	292 x 25	Multiple choices (pigtail)
S2406BH	2.4- 2.5 GHz	8	<1.5:1	Vertical	360	13	Mast	292 x 25	Multiple choices (pigtail)
Omnidirectional Panel Antennas									
SQ2403PG	2.4- 2.5 GHz	3.5	<1.5:1	Vertical	360	50	Ceiling Grid	104 x 104 x 22	Multiple choices (pigtail)
SQ2403P	2.4- 2.5 GHz	3.5	<1.5:1	Vertical	360	45	Ceiling	152 x 152 x 32	Multiple choices (pigtail)
SL2402P	2.4- 2.5 GHz	2.5	<1.7:1	Vertical	360	160	Ceiling Grid	51 x 51 x 18	Multiple choices (pigtail)
SQ515WP	5.15-5.875 GHz	2.75	2:1	Vertical	360	50	Ceiling Grid	51 x 51 x 18	Multiple choices (pigtail)
SQ24493P	2.4-2.5 & 4.9-5.99 GHz	2.4/3	2:1	Vertical	360	60	Ceiling Grid	51 x 51 x 18	Multiple choices (pigtail)
SL2453WP	2.4-2.5 & 4.9-5.99 GHz	2.25/4	<2:1	Vertical	360	120/80	Ceiling Grid	51 x 51 x 18	Multiple choices (pigtail)
IF2450 Microsphere	2.4-2.5 GHz	3	2:1	Linear	360	60	Ceiling, Surface	46 x 30 x 2.5	SMA
Directional Panel Antennas									
S2406P	2.4- 2.5 GHz	6	1.7:1	Vertical	70	65	Wall	132 x 97 x 14	Multiple choices (pigtail)
S2307AMP	2.4- 2.5 GHz	7	1.5:1	Vertical	65	60	Wall	144 x 97 x 38	Multiple choices (pigtail)
Directional Yagi Antennas									
S2408MD	2.4- 2.5 GHz	8	<1.5:1	Vertical	66	56	Ceiling	184 x 95 x 51	Multiple choices (pigtail)
Dipole Antennas									
SQ2405DD	2.4- 2.5 GHz	4	<1.5:1	Vertical	87	58	Ceiling	155 x 155 x 35	Multiple choices (pigtail)
IB2450	2.4- 2.5 GHz	5	<1.8:1	Vertical	60	60	Wall	69 x 64 x 20	Multiple choices (pigtail)

Outdoor

WLAN outdoor antennas that are high-gain, weatherproof and UV protected, with plated metal components to prevent corrosion.

PART NUMBER	FREQUENCY (MHZ)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
Omnidirectional Stick Antennas									
FG24005	2.4- 2.5 GHz	5	2:1	Vertical	360	33	Mast	349 x 33	N(f)
FG24008	2.4- 2.5 GHz	8	2:1	Vertical	360	17	Mast	622 x 33	N(f)
Directional Panel Antennas									
S24015P	2.4- 2.5 GHz	14	<1.5:1	Vertical	31	29	Wall, mast	254 x 254 x 38	Multiple choices (pigtail)
S54717P	5.47-5.85 GHz	17	1.5:1	Vertical	17	17	Wall, mast	171 x 171 x 48	Multiple choices (pigtail)
Directional Yagi Antennas									
PC2415N	2.4- 2.5 GHz	14	<1.5:1	Vertical	34	30	Wall, mast	633 x 95 x 38	Multiple choices (pigtail)
YE24007	2.4- 2.5 GHz	10	<2:1	Vertical	33	37	Mast	203 x 76	N(f) (pigtail)
YE490012	5.1-5.8 GHz	14.5	<2:1	Vertical	33	37	Mast	196 x 76	RP-TNC (pigtail)
Directional Sector Antennas									
S4901790P	4.9-5.8 GHz	16	<2:1	Vertical	90	5.5	Mast	635 x 51 x 76	N(f)



• PC2415NA

Vehicular

Antennas that are mounted to vehicles, and provide true field diversity design which ensures uninterrupted video and data transmissions in urban canyons and rural drop off areas.

PART NUMBER	FREQUENCY (MHZ)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
ETRA24003 Phantom Elite	2.4- 2.5 GHz	3	2:1	Diversity	360	130	Surface	69 x 36	NMO, N
ETRA58003 Phantom Elite	4.9-6 GHz	3	2:1	Diversity	360	130	Surface	69 x 36	NMO, N



• Antenna Vehicular Elites
ETRA8063 ETRA8063P

Special Application Antennas & Accessories

Diversity

Spatial diversity antennas which produce a high degree of energy that is radiated into the desired coverage area in a very predictable and repeatable manner.



• IFD2450

PART NUMBER	FREQUENCY (MHZ)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
S2402DS	2.4- 2.5 GHz	2	<1.7:1	Vertical	360	80	Ceiling grid	133 x 70 x 19	Multiple choices (pigtail)
S24493DS	2.4- 2.5 & 4.9-5.9 GHz	3	2:1	Vertical	360	60	Ceiling Grid	156 x 93 x 23	Multiple choices (pigtail)
S2406DSP	2.4-2.5 GHz	6	<1.7:1	Vertical	80	55	Wall, mast	165 x 120 x 20	Multiple choices (pigtail)
S24497PDA	2.4-2.5 & 4.9-5.9 GHz	7	<2.5:1	Vertical	68/52	66/60	Wall, mast	208 x 106 x 35	Multiple choices (pigtail)
IDD2450	2.4-2.5 GHz	5	2:1	Vertical	60	60	Wall	183 x 69 x 25	Multiple choices (pigtail)
IFD2450	2.4-2.5 GHz	3	2:1	Vertical	360	80	Wall	123 x 44 x 11	Multiple choices (pigtail)

MIMO

Antennas that greatly enhance the performance of 802.11n systems with uniform and symmetrical radiation patterns, providing high-level signal density into defined coverage zones.



• S2451DBT

PART NUMBER	FREQUENCY (MHZ)	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
S24493TS (3-element)	2.4- 2.5 & 4.9-5.9 GHz	3/4	2:1	Vertical	360	60	Ceiling grid	349 x 33	Multiple choices (pigtail)
S24517PT (3-element)	2.4- 2.5 & 4.9-5.9 GHz	8/10.7	2:1	Diversity	75/77	70/60	Wall, mast	622 x 33	Multiple choices (pigtail)
S245112PT (3-element)	2.4- 2.5 & 4.9-5.9 GHz	109/13.5	<1.5:1	Diversity	45/20	45/20	Wall, mast	411 x 373 x 35.8	Multiple choices (pigtail)
S2451DBT (6-element)	2.4-2.5 & 5.15-5.875 GHz	2.5/6	1.5:1	Diversity	360	75/42	Ceiling grid	219 x 44	Multiple choices (pigtail)

Device

Antennas designed to accommodate the small form factors of WLAN equipment.

PART NUMBER	FREQUENCY	GAIN (dBi)	VSWR	POLARIZATION	BEAMWIDTH 3 DB (DEG)		MOUNT STYLE	DIMENSIONS (mm)	CONNECTORS
					HORIZONTAL	ELEVATION			
NanoBlade	2.4-2.5 & 4.9-6 GHz	3.8/4.5	<2:1	Vertical	360	—	Tape, adhesive, stand-off	51 x 16	Multiple choices (pigtail)
NanoBlue	2.4- 2.5 GHz	2	2:1	Vertical	360	—	Tape, adhesive, stand-off	47.8 x 12.7	Multiple choices (pigtail)
DPuck	2.4-2.5 & 5.15-5.875 GHz	3/4	<1.5:1	Vertical	360	—	PC board	16 x 16 x 6	—
Blackchip	2.4-2.5 & 4.9-6 GHz	2/3	1.5:1	Vertical	360	—	PC board	12 x 6 x 2.5	—
NanoAnt	2.4-2.5 GHz	2	—	Vertical	360	—	PC board	10 x 3 x 4	—
SM24513P (3-element MIMO array)	2.4-2.5 & 5.15-5.875 GHz	2/4	—	Diversity	—	—	Internal	120 x 130 x 9.3	U.FL, RP-SMA (pigtails)

Accessories

Items that can be individually added to specific antennas.



• ALPMT

PART NUMBER	DESCRIPTION
ALLPMT	All purpose pole mount
ALLPMTW	All purpose wall mount
ALLPMTA	All purpose mount for 8 x 13 inch antenna
ALLPMTB	All purpose mount for 4.5 x 6.5 inch antenna
ALLPMTTC	All purpose mount for 4.5 x 6.5 inch antenna
TM905BRK	Tilt mount for SR2411120D and S2401290P sector antennas

Lightning Arrestors

PART NUMBER	DESCRIPTION	CONNECTORS
LAC4N	50-2750 MHz	N
LAC6	100-6000 MHz	N, RP-SMA



• LAC6

What Sets Us Apart

MISSION

A trusted partner delivering technology to the world through innovation, speed, & reliable fulfillment.

VISION

A world where smart technology enables virtually everything to sense, think and communicate; transforming our way of life and empowering us to do more than we can imagine

CULTURE

Working as a global team of talented individuals to make a difference for our employees, business partners and our world

We have an unwavering commitment to being honest and ethical in all situations and treating each other with dignity and respect.

We create an open and engaging environment that thrives on high energy, adaptability and delivering on our commitments.

Laird is a place with great opportunities for personal and professional growth for those who work hard, are willing to learn and deliver results.

29

engineering and manufacturing sites globally

18

customer/market awards in 2013-14

10Bn parts supplied to one client

115+ year heritage

9,000 employees in 50 locations covering 5 continents and 19 countries across the globe



DESIGN



RAPID PROTOTYPING



PRODUCTION



SCALE



SOFTWARE



SYSTEM INTEGRATION



SERVICE



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IAS-BRO-ENTERPRISE AND SMALL OFFICE_0416

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