



Smart Technology. Delivered.

# Telecom-Indoor Distributed Antenna Systems (iDAS)

Laird Indoor Distributed Antenna Systems (iDAS) are performance engineered to deliver single and multiple carrier signals in buildings where continuous, seamless, and robust wireless coverage is critical for efficient and effective operations.





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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, organizations, 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 Telecom – Indoor Distributed Antenna Systems (iDAS)

Customers depend on and demand ubiquitous wireless phone service both outside and inside buildings and Wireless Service Providers have a vested interest in meeting those expectations. Indoor Distributed Antenna Systems (iDAS) are designed to deliver near ubiquitous wireless service inside high density private and public locations such as malls, office buildings, stadiums, hospitals, subways, airports and similar facility applications. Wireless service providers are aggressively expanding their in-building coverage to meet customer demand for seamless mobility. Some in-building wireless projects require support for a single Wireless Service Provider and others require multiple air interfaces, known as host-neutral systems. Laird designs and manufactures customized, performance-critical products for both single and multiple Wireless Service Provider air interface applications.

## Depend on Laird

Laird's Telecom - iDAS wireless antennas are particularly applicable for environments where aesthetics and wide-angle coverage are necessary for successful wireless deployment. Their surprisingly small size allows the antennas to be hidden almost anywhere, providing flexible installation options for most commercial, government, industrial, and entertainment venue in building applications.

## Benefits of Telecom – iDAS Technology

Some benefits of using Laird's Telecom - iDAS antennas include:

- Low profile aesthetically neutral packaging
- Multiple ceiling mounting options
- Multi-band operation
- Performance optimized using Laird Technologies proprietary RF optimization tools

# Telecom - iDAS Antennas

## Squint™ Omnidirectional Indoor Panels

Antennas that feature an omnidirectional pattern while focusing energy where it is most desired. Unique pattern characteristics mitigate multipath issues. The products feature:

- Ceiling mount vertically polarized
- Omnidirectional while focusing energy where it is most desired.
- Unique pattern characteristics mitigate multi-path issues
- Single and multi-band models
- Integrated coaxial pigtails can be customized in length and connector for the app
- 50 watt power rating



• SQ1852PG12NF

PART NUMBER	FREQUENCY (MHz)	BANDWIDTH(DEG)		VSWR	GAI (dBi)	DIMENSIONS(mm)		
		EL	AZ			LENGTH	WIDTH	HT
SQ8243P12NF	824-896	-	360	1.5:1	3.5	254	127	38
SQ8803P12NF	880-960	-	360	1.5:1	3.5	254	127	38
SQ8962P12NF	896-940	-	360	1.5:1	3.5	254	127	38
SQ9023P12NF	902-928	-	360	1.5:1	3.5	254	127	38
SQ1852PG12NF	1850-1990	-	360	1.5:1	3.5	102	102	22
SQ2403PG12NF	2400-2500	-	360	1.5:1	2.5	102	102	22

1. Part numbers above are completed with the addition of the cable length and connector (e.g. SQ185PG12NF implies 12" of cable terminated in a TypeN female connector)

2. Connector/cable configurations can be customized to meet requirements  
3. Vehicular application

## Omnidirectional Indoor Panels

Omnidirectional single and dual port panel antennas that are well suited for indoor applications where a small foot print is required. The products feature:

- Low profile designs
- Single and multi-band models
- Extremely uniform and symmetrical pattern characteristics
- Integrated coaxial pigtails can be customized in length and connector for the app



• SL80173WP

PART NUMBER	FREQUENCY (MHz)	BANDWIDTH (DEG)		VSWR	GAIN (dBi)	DIMENSIONS (mm)		
		EL	AZ			LENGTH	WIDTH	HT
SL82184P <sup>3</sup>	824-896/1850-1990	-	360	2.0	4.0	152.4	152.4	31.75
SL88174P	880-960/1710-1880	-	360	2.0	4.0	152.4	152.4	31.75
SL80173WP	880-960/1710-1880/ 1920-2170	70/60/60	360	2.0	3.0	152.4	152.4	31.75
SL8025WP	806-960/1710-2170/ 2400-2500	55/50/60	360	2.0	3.0	152.4	152.4	31.75
SL17182P <sup>3</sup>	1710-1755/1850-1990/ 2110-2155	65	360	2.0	2.0	152.4	152.4	31.75

1. Part numbers above are completed with the addition of the cable length and connector (e.g. SL80173WP10SM implies 12" of cable terminated in a SMA male connector)

2. Connector/cable configurations can be customized to meet requirements  
3. Dual port antenna designs

## Microsphere™

Antennas that feature an omnidirectional pattern, and suited to a variety of uses including handheld devices, in-building systems, or other applications where mobility is a factor. The products feature:

- Surprisingly small size allows for an invisible solution for most apps
- The field pattern is vertically polarized and toroidal, providing omnidirectional coverage in any plane around the long axis of the antenna
- 50 watt power rating



if850 microsphere



if8519 microspheres\_LT



If900 900 MHz microsphere

MODEL	PART NUMBER	FREQUENCY(MHz)	VSWR	GAIN (dBi)	DIMENSIONS(mm)		
					LENGTH	WIDTH	HT
IF850-SF00	CAF95952	806-960	2.0	3.0	114	86	2.5
IF8519-SF00	CAF94135	806-896/1850-1990	1.5	3.0	159	136	2.5
IF9018-SF00	CAF94126	880-960/1710-1880	1.5	3.0	129	156	2.5
IFMULT-SF002	CAF94362	806-960/1710-1990/ 1920-2170	2.0	3.0	112	138	2.5
IFULTRA-SF00	CAF94895	806-960/1710-1990/ 1920-2170/2400-2500	2.5	1.8 3.6 3.0 2.9	179	80	1.7
3G/4G MicroSphere	CFS69271	698-806/ 824-960/ 1710-1880/1850-1990/ 1920-2170/2100-2500/ 2500-2700	2.1	1.5 3.0 3.0 4.5	100	164	1.6
3G/4G MicroSphere	CFS69271-FNF	698-806/ 824-960/ 1710-1880/1850-1990/ 1920-2170/2100-2500/ 2500-2700	2.1	1.5 3.0 3.0 4.5	100	164	1.6
3G/4G MicroSphere	CFS69271-FSMAF	698-806/ 824-960/ 1710-1880/1850-1990/ 1920-2170/2100-2500/ 2500-2700	2.1	1.5 3.0 3.0 4.5	100	164	1.6

• Comes with SMA (f) connector 2. Can be configured with Type N(f), SMA(f) R-SMA(f)

## LTE In Building Wireless

Antennas applicable for environments where aesthetics and wide angle coverage are necessary for successful wireless deployment. Their surprisingly small size allow the antennas to be hidden almost anywhere, providing an invisible solution for most applications. The products cover:

- Broadband global solutions (698-2700 MHz)
- Localized solutions that operate in the 698-806 band.
- Localized solutions that cover the 2500-2695 band.



PART NUMBER	FREQUENCY (MHz)	ANTENNA TYPE	PATTERN TYPE	BEAMWIDTH		VSWR	GAIN (dBi)	POLARIZATION	DIMENSIONS(mm)			CONNECTOR TYPES	MOUNT STYLE	POWER RATING
				EL°	AZ°				LENGTH	WID	HT			
IN800/2700-5	806-860 / 1710-2700	Panel	Omnidirectional	90	360	1.5	3.0	Vertical	186	87	-	Type N(f)	Ceiling	50W
CMD69273	698-960 / 1710-2700	2-port MIMO	Omnidirectional	-	360	2.0	3-4/ 5.0-5.6	Vertical	219	-	44	2-Type N(f)	Ceiling	10W
CMD69273P-FNF	698-960 / 1710-2700	2-port MIMO	Omnidirectional	-	360	2.0	3-4/ 5.0-6.9	Vertical	219	-	44	2- Type N(f)	Ceiling	50W
CMD69273P-30F	698-960 / 1710-2700	2-port MIMO	Omnidirectional	-	360	2.0	3-4/ 5.0-6.9	Vertical	219	-	44	2- Type N(f)	Ceiling	50W
CMD69273P-46NF	698-960 / 1710-2700	2-port MIMO	Omnidirectional	-	360	2.0	3-4/ 5.0-6.9	Vertical	219	-	44	2- Type N(f)	Ceiling	50W
CMS69273	698-960 / 1575 / 1710-2700	Panel	Omnidirectional	90	360	2.0	1.0 / 3.0	Vertical	199	-	86	Type N(f)	Ceiling	25W
CMS69273S	698-960 / 1575 / 1710-2700	Panel	Omnidirectional	90	360	2.0	1.0 / 3.0	Vertical	199	-	86	Type N(f)	Ceiling w/ threaded stem	25W
CMS69273P	700/850/900/1800/1900/ 2300/2400/2500	Low PIM 2-port MIMO	Omnidirectional	-	360	2.0	3.1/3.1/2.8/ 5.9/4.5/4.3/ 5.9/6.9	Linear H/V	219	-	44	2-Type N(f)	Ceiling	50W
PAS69278P-FNF	698-960 / 1710-2700	Dual Port Panel	Directional	55/70	50/80	2.0	7.5-9.0 5.7-9.5	Slant ± 45°	295	295	82	2-Type N(f)	Wall / Mast	10W
PAS69278P-46NF	698-960 / 1710-2700	Dual Port Panel	Directional	55/70	50/80	2.0	7.5-9.0 5.7-9.5	Slant ± 45°	295	295	82	2-Type N(f)	Wall / Mast	10W
PAV69278I	698-960 / 1710-2700	Panel	Directional	64/51	75/63	2.0	8.0	Vertical	249	249	61	Type N(f)	Wall	50W
PAV69278PI	698-960 / 1710-2700	Low PIM Panel	Directional	64/51	75/63	2.0	8.0	Vertical	249	249	61	Type N(f)	Wall	50W
SL69273PT	Port1: 698- 806/1710- 2170 Port2: 824- 894/1850-1990 Port3: 2500-2700	3-port Panel	Omnidirectional	-	360	2.0	3.0 / 2.0/2.0	Vertical	216	-	44	Type N(m)	Ceiling	5W



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