

DAS

Distributed Antenna Systems

For Cellular/LTE, Wi-Fi/WLAN
and LMR frequency bands



Laird[™]

Industry Leading Innovation

The market for Distributed Antenna Systems (DAS) is growing rapidly- from \$7.75 billion back in 2017, to a projected \$13.74 billion by 2023¹. This growth is expected across markets such as public sector, enterprises, healthcare, and industrial. DAS demand is driven by increasing mobile data traffic, the proliferation of connected devices due to the Internet of Things (IoT), the rising need for spectrum efficiency, and the need for extended network coverage and connectivity everywhere.

Laird continues to lead the industry with DAS innovation, being the first in the industry to introduce:

- 2-port and 4-port low profile MIMO antennas
- QR bar code antenna specification label
- Ultra low-profile antennas in the CBRS bands (for SISO and MIMO).

Laird is developing new products for future-proof DAS and small cell installations for both cellular and public safety networks.

¹ Distributed Antenna System (DAS) Market by Offering, marketsandmarkets.com, 2018

Laird's DAS Antenna Portfolio - By Type

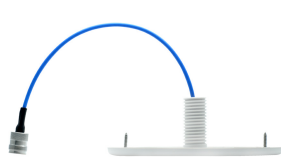
For a complete listing, visit www.lairdtech.com/antennas

MIMO- 2-Port, Low PIM, OMNI DAS Antennas



Antenna Model	CMD69273P	CFD69383P
Style	Low Profile Circular 2-Port	Ultra Low Profile Circular 2-Port
Dimensions (Diameter x Height)	8.6" x 1.7"	9.84" x 0.3"
Thickness	Low Profile (best performance)	Lowest Profile (good performance)
Frequency Bands (MHz)	698-960/1710-2700	698-960/1350-1550/1690-4000
VSWR	< 1.7:1	< 1.4:1
Gain (dBi)	3.9	3.8
Polarization at each port	Vertical & Horizontal	Linear, Horizontal
PIM, Third Order, 2 x 20W	< -154 dBc	< -158 dBc

SISO, Low PIM, Omnidirectional DAS Antennas



Antenna Model	CFSA69383P	CFS60383P	CLS69273P
Style	Ultra-Low Profile Circular	Ultra-Low Profile Rectangular	Low-Profile Circular
Dimensions (Diameter x Height)	7.1" x 0.3"	7.1" x 4.6" x 0.3"	9.84" x 1.87"
Thickness	Lowest Profile (good performance)	Lowest Profile (good performance)	Low Profile (better performance)
Frequency Bands (MHz)	698-960/1350-1550/1690-4000	600-960/1350-1550/1690-3800	698-960/1695-2700
VSWR	< 1.2:1	< 1.5:1	< 2.0:1
Gain (dBi)	3.5	3.6	2.6
Polarization at each port	Horizontal	Horizontal	Vertical
PIM, Third Order, 2 x 20W	< -160 dBc	< -156 dBc	< -156 dBc

Laird's DAS Antenna Portfolio - By Type (Continued)

Low PIM, Directional DAS Antennas



Antenna Model	PAV69278PO	PAS69278P
Style	SISO Outdoor	2-Port MIMO Indoor/Outdoor
Dimensions (Diameter x Height)	9.82" x 9.8" x 2.41"	11.6" x 11.6" x 3.2"
IP Rated	IP67	IP55
Frequency Bands (MHz)	698-960 / 1710-2700	698-960 / 1710-2700
VSWR	< 1.8:1	< 2.0:1
Gain (dBi)	7.6	9.1
Polarization at each port	Vertical	Slant ±45°
PIM, Third Order, 2 x 20W	< -150 dBc	< -151 dBc

MIMO, 4-Port, Low PIM, Omnidirectional DAS Antennas



Antenna Model	CMQ69273P
Style	Low Profile Circular 4-Port
Dimensions (Diameter x Height)	2.9" x 2.2"
Thickness	Average Profile (good performance)
Frequency Bands (MHz)	698-960 / 1710-2700
VSWR	< 1.8:1
Gain (dBi)	.4
Polarization at each port	Linear
PIM, Third Order, 2 x 20W	< -154 dBc

Laird designs and manufactures all DAS antennas in-house, enabling the delivery of the best quality, low PIM, DAS solutions that are stocked locally for our customers. Each antenna is tested for compliance and must pass post-production S-parameter and PIM testing before being packaged for shipment, ensuring reliability and quality. Laird labels each antenna with a QR code that captures and can display critical production data.



WWW.LAIRDTECH.COM/ANTENNAS

