





# **CMX69273P**

698 to 960 MHz/1690 to 2700 MHz Low PIM 2-port MIMO Ceiling Mount Antenna

# LOW PIM 2-PORT MIMO MULTI-BAND CEILING MOUNTED OMNIDIRECTIONAL ANTENNA

The Patent Pending CMX69273P is an indoor, broadband, Low PIM 2-port MIMO omnidirectional ceiling mount antenna. It is designed to provide pattern coverage that is optimized for indoor requirements at 698-960 MHz and 1695-2700 MHz frequency bands. The individual antenna elements are designed to radiate a pattern that has been specifically shaped to provide optimal radiation within a coverage zone.

#### **FEATURES**

- · Low Profile aesthetically neutral housing
- Mounts directly and easily to ceiling tile
- Performance optimized using Laird proprietary RF optimization tools
- Excellent flame retardancy rating
- Two radiating elements optimized for indoor applications
- Multiple mounting options for a variety of
- ceiling configurations
- QR Code (Quick Response) label for easy to antenna performance data access
- RoHS compliant
- · Supports AWS-3 Frequency Band

#### **BENEFITS**

- Complete cellular 3G/4G LTE data communication at each antenna port
- Low PIM performance minimizes interference and improves in building wireless network coverage and capacity
- Attractive, compact design and form factor ideal for indoor solution applications
- Full plenum rating allows for above ceiling installations

#### **MARKETS**

- Indoor Distributed Antenna Systems
- Wireless Service Providers
- Small cells Building Operators offices & meeting rooms
- Hospitality hotels & casinos
- Transportation airport, bus, & train terminals
- Retail stores & indoor pedestrian malls
- Education libraries & museums

#### **CEILING MOUNTS**



(TILE FLUSH MOUNT) Standard



Part # HKIT-CMX-001 (ABOVE CEILING TILE MOUNT)



Part # HKIT-CMX-002 (HARD CEILING EXTENSION MOUNT)



Part # HKIT-CMX-003 (HARD CEILING TILE FLUSH MOUNT)



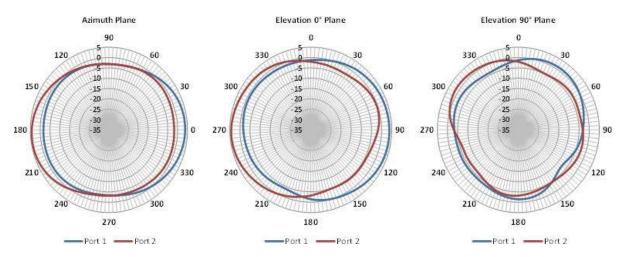
Part # HKIT-CMX-004
(ABOVE CEILING MOUNT)

PARAMETER	SPECIFICATION								
Frequency Bands, MHz	698-806	824-894	880-960	1690-1710	1780-1880	1850-1990	1910-2170	2300- 2500	2500- 2700
Peak Gain, dBi (Typ)	4.3	4.1	4.1	2.1	3.3	2.9	2.6	2.8	3.1
Peak Gain, dBi (Max)	4.6	4.3	4.3	3.2	3.8	3.4	3.0	3.7	3.7
VSWR (Typ)	<1.5:1	<1.3:1	<1.3:1	<1.3:1	<1.3:1	<1.3:1	<1.3:1	<1.2:1	<1.5:1
VSWR (Max)	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1
Isolation, dB (Typ)	< -21	< -19	< -17	< -22	< -22	< -23	< -25	< -29	< -30
Isolation, dB (Max)	< -16	< -16	< -16	< -16	< -16	< -16	< -16	< -16	< -16
PIM, 3rd Order, 2 x 20W (Typ)	<-154 dBc					<-153 dBc			
PIM, 3rd Order, 2 x 20W (Max)	<-150 dBc					<-150 dBc			
Nominal Impedance	50 Ω								
Max Power	50 Watts (@ ambient temp of 25oC, 77oF)								
Polarization	Linear H/V for each radiator								
Radome	PC / ABS, UL94 V-O (White)								
Mounting	Ceiling mount (drywall or tile flush mount), above ceiling								
Dimensions (diameter x height)	250 mm x 49 mm ( 9.84" x 1.9" )								
Weight	Approximately 0.60 kg ( 1.32 lbs.)								
Storage Temperature (°C)	-40° C to +85° C (-40oF to 185oF)								
Operational Temperature (°C)	-30° C to +70° C (-22oF to 158oF)								
Standard for Safety: Information Technology Equipment	UL/CSA/EN/IEC/CB-Scheme 60950-1 Certified								
Standard for Safety: Fire and Smoke (Plenum)*	UL 2043 Listed								
Flammability Rating (Radome)	UL 94V0 Materials								
Material Substance Compliance	RoHS Compliant								

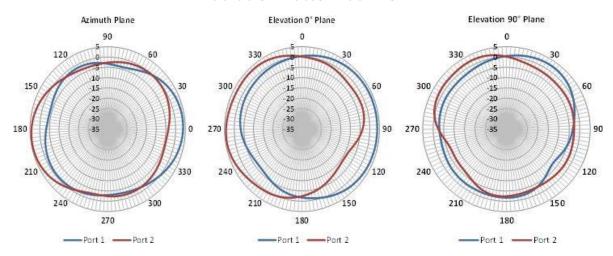
MODEL NUMBER	CABLE LENGTH	CONNECTOR
CMX69273P-30NF	30 cm, (12"), cable	Dual Type N Female
CMX69273P-30D41F	30 cm, (12"), cable	Dual Type 4.1-9.5 Female
CMX69273P-30D43F	30 cm, (12"), cable	Dual Type 4.3-10 Female

# **RADIATION PATTERNS**

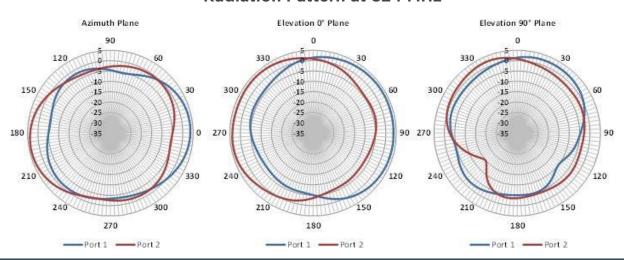
# **Radiation Pattern at 698 MHz**



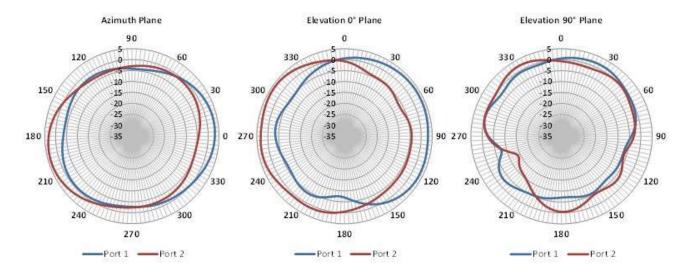
# **Radiation Pattern at 746 MHz**



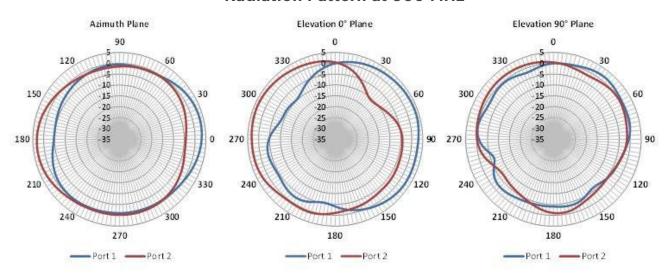
# **Radiation Pattern at 824 MHz**



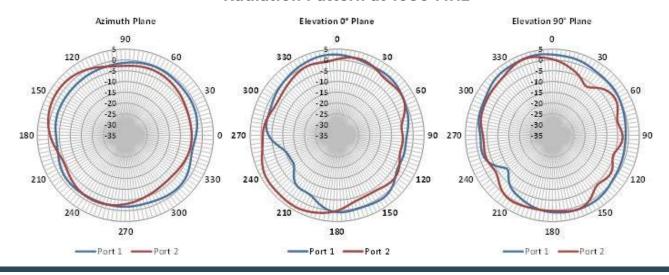
# **Radiation Pattern at 880 MHz**



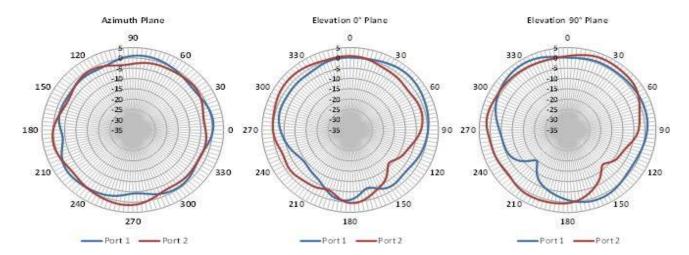
#### **Radiation Pattern at 960 MHz**



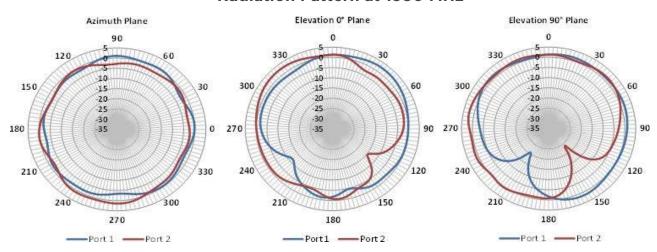
#### **Radiation Pattern at 1680 MHz**



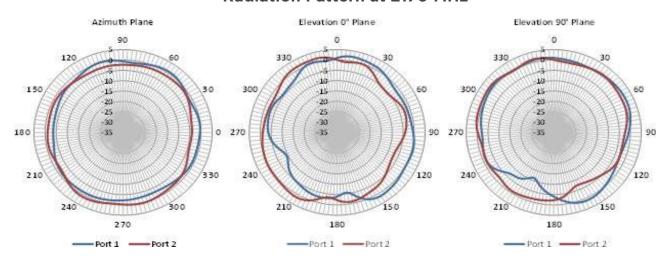
# **Radiation Pattern at 1880 MHz**



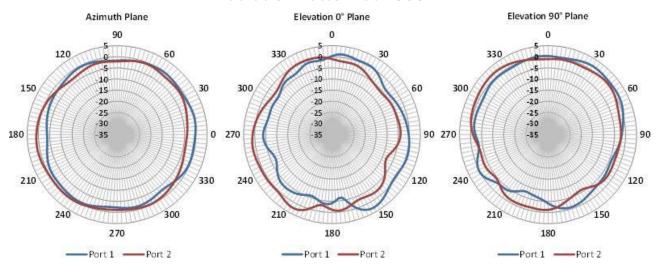
#### **Radiation Pattern at 1950 MHz**



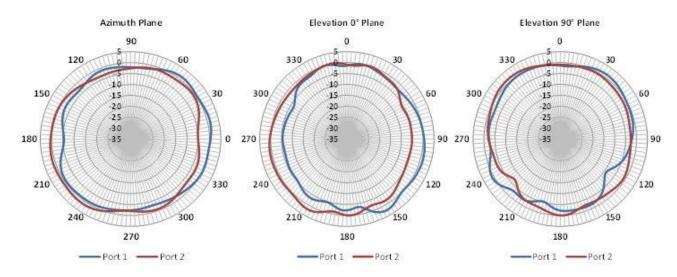
# **Radiation Pattern at 2170 MHz**



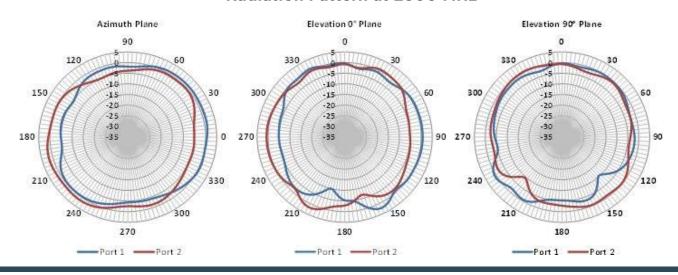
# **Radiation Pattern at 2305 MHz**



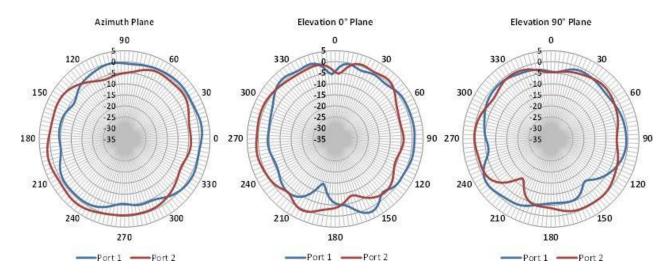
#### Radiation Pattern at 2412 MHz



#### Radiation Pattern at 2600 MHz



#### Radiation Pattern at 2700 MHz



#### TE TECHNICAL SUPPORT CENTER

USA: +1 (800) 522-6752 Canada: +1 (905) 475-6222 Mexico: +52 (0) 55-1106-0800 Latin/S. America: +54 (0) 11-4733-2200 +49 (0) 6251-133-1999 Germany: +44 (0) 800-267666 UK: +33 (0) 1-3420-8686 France: +31 (0) 73-6246-999 Netherlands: China: +86 (0) 400-820-6015

#### te.com

TE Connectivity, TE Connectivity (logo) and Every Connection Counts are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

©2021 TE Connectivity. All Rights Reserved.

12/21 Original

