



## CFSA69594P / CFSA69594P1

## **5G Ceiling Mount DAS Antennas Datasheet**

CFSA69594P and CFSA69594P1 are low-PIM, indoor, wideband, omnidirectional low-profile ceiling mount DAS antennas. Designed to provide pattern coverage that is optimized for indoor coverage requirements at 698-960 MHz and 1690-5925 MHz for 5G, 4G/LTE and older cellular networks. Applicable for environments where wide-angle coverage is necessary for a successful wireless deployment, while maintaining desired in-building aesthetics.

## **FEATURES AND BENEFITS**

- 5G sub-6 GHz networks including C-Band, CBRS, LAA •
- Ultra-low profile
- Ultra-low and optimized PIM rating less than -163 dBc •
- Mounts directly and easily to ceiling tile or hard ceilings · Plenum rated cable
- Radome is paintable using commonly available spray paints (must not contain metal)
- UL94-V0 flammability rating

ELECTRICAL SPECIFICATION											
Operating Frequency (MHz)	698- 824	824- 894	880- 960	1350- 1550	1690- 1880	1850- 1990	1910- 2200	2300- 2700	3300- 4000	4000- 4200	5150- 5925
VSWR - Avg	<1.3:1	<1.2:1	<1.4:1	<1.3:1	<1.2:1	<1.2:1	<1.2:1	<1.3:1	<1.4:1	<1.4:1	<1.4:1
VSWR - Max	<1.7:1	<1.7:1	<1.7:1	<2.0:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<1.7:1	<2.5:1	<2.0:1
Peak Gain - Average (dBi)	3.2	3.0	2.6	3.8	5.2	5.4	5.3	5.2	3.7	3.8	4.4
Peak Gain (dBi)	3.7	3.4	3.2	4.5	5.4	5.6	5.6	5.6	4.3	4.1	4.9
PIM - 2x20W - Ave (dBc)	<-166					<-163	<-164		-		
PIM - 2x20W - Max (dBc)	< -150							-			
Nominal Impedance (Ohms)	-50										
Max Power - Ambient 25°C (W)	50										
Polarization	Linear - Horizontal										
Azimuth Beamwidth	360°, Omnidirectional										

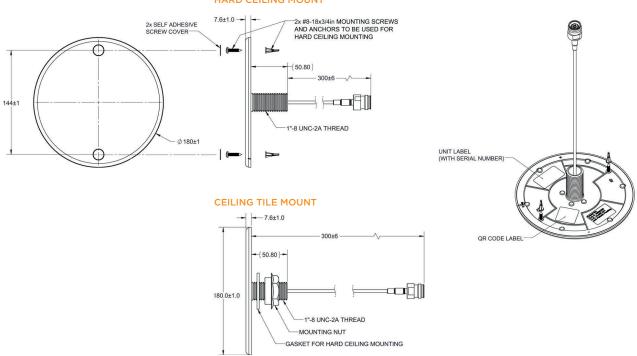
MECHANICAL SPECIFICATION	
Dimensions - height x diameter - mm (in.)	7.6 × 180 (0.30 × 7.09)
Weight - g (oz.)	240 (8.47)
Ports	1
Cable Length / Connector (cm)	Standard 30 cm, available Type N (female) and 4.3-10 (female)
Radome	PC, UL94-V0 (White)
Mounting	Ceiling mount (flush mount with screws or anchors)

ENVIRONMENTAL SPECIFICATION			
Operating Temperature – °C (°F)	-30 to +70°C (-22 to +158°F)		
Storage Temperature - °C (°F)	-40 to +85°C (-40 to +185°F)		
Flammability Rating	UL94-V0		
Material Substance Compliance	RoHS Compliant		
Standard for Safety: Fire and Smoke (Plenum)	Plenum UL 444		

PART NUMBER	CABLE LENGTH	CONNECTOR	MOUNTING	PACKAGING
CFSA69594P-30NF	30 cm (12 in.)	Type N-Female	Ceiling Tile	Unit
CFSA69594P-30D43F	30 cm (12 in.)	4.3-10 Female	Ceiling Tile	Unit
CFSA69594P-B30NF	30 cm (12 in.)	Type N-Female	Ceiling Tile	Bulk (16 Pack)
CFSA69594P-B30D43F	30 cm (12 in.)	4.3-10 Female	Ceiling Tile	Bulk (16 Pack)
CFSA69594P1-30NF	30 cm (12 in.)	Type N-Female	Hard Ceiling	Unit
CFSA69594P1-30D43F	30 cm (12 in.)	4.3-10 Female	Hard Ceiling	Unit
CFSA69594P1-B30NF	30 cm (12 in.)	Type N-Female	Hard Ceiling	Bulk (16 Pack)
CFSA69594P1-B30D3F	30 cm (12 in.)	4.3-10 Female	Hard Ceiling	Bulk (16 Pack)

## **MECHANICAL DRAWINGS**

### HARD CEILING MOUNT



## **RADIATION PATTERNS**

## 725 MHz

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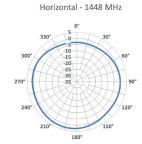
## 850 MHz



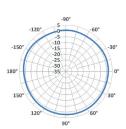
925 MHz



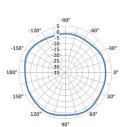
1448 MHz



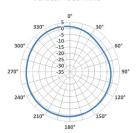
Vertical - 725 MHz



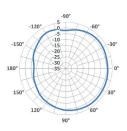
Vertical - 850 MHz



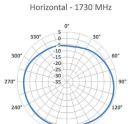
Vertical - 925 MHz



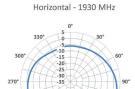
Vertical - 1448 MHz



1730 MHz



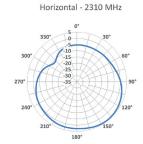
1930 MHz



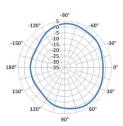
2130 MHz

Horizontal - 2130 MHz

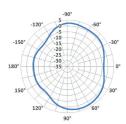
2310 MHz



Vertical - 1730 MHz



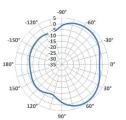
Vertical - 1930 MHz



Vertical - 2130 MHz

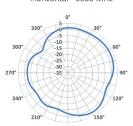


Vertical - 2310 MHz

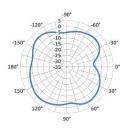


## 3500 MHz

#### Horizontal - 3500 MHz

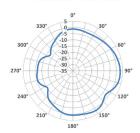


Vertical - 3500 MHz

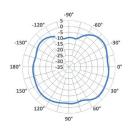


## 4000 MHz

Horizontal - 4000 MHz

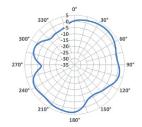


Vertical - 4000 MHz

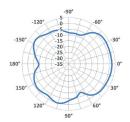


## 5500 MHz

Horizontal - 5500 MHz

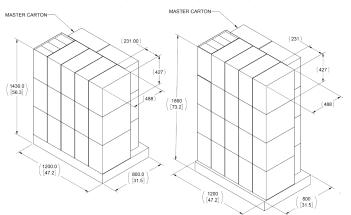


Vertical - 5500 MHz



#### PACKING INFORMATION

#### PACKAGING - INDIVIDUAL CARTON

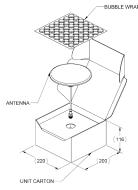


#### AIR SHIPMENT PALLET LAYOUT

BUNITS OF ANTENNA PER MASTER CARTON 7 MASTER CARTON PER LAYER BLAYERS STACK PER PAULET 3 LAYERS STACK PER PALLET TOTAL OF ANTENNA PER PALLET = 168 PCS ESTIMATED FULL PALLET WEIGHT= 96 Kg

#### OCEAN SHIPMENT PALLET LAYOUT

- 8 UNITS OF ANTENNA PER MASTER CARTON 7 MASTER CARTON PER LAYER 4 LAYERS STACK PER PALLET TOTAL OF ANTENNA PER PALLET = 224 PCS ESTIMATED FULL PALLET WEIGHT= 124 Kg

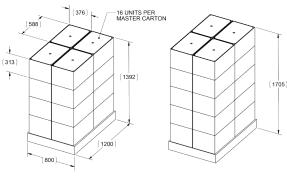


UNIT PACKAGING DETAIL

#### TE TECHNICAL SUPPORT CENTER

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#### PACKAGING - BULK PACK



#### PALLETIZE- FOR AIR SHIPMENT

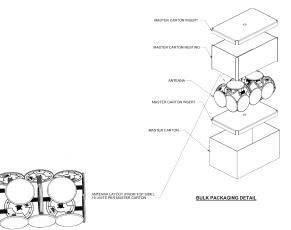
#### PALLETIZE- FOR OCEAN SHIPMENT

#### **BULK PACKAGING INFORMATION**

PALLET (1200 x 800 x 140) MM

FOR AIR SHIPMENT, TOTAL 16 MASTER CARTONS @ 256 UNIT ANTENNAS PER PALLET. ESTIMATED FULL PALLET WEIGHT= 125  $\rm Kg$ 

FOR OCEAN SHIPMENT, TOTAL 20 MASTER CARTONS @ 320 UNIT ANTENNAS PER PALLET ESTIMATED FULL PALLET WEIGHT= 149  $\rm kg$ 



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