

DAS SOLUTIONS



Clarity™
Transparent Antenna

Maker Of Clarity™ Transparent Antennas!

DAS Solutions for Emerging Networks : Today's communication networks are evolving at an amazing pace. The challenge is to future-proof DAS designs to reduce network equipment churn. PulseLarsen is here to supply you with the antenna solutions that your network carrier and public safety system implementers are, or soon will be, requesting from you. See our new solutions covering:

- T-Mobile's Band 71
- Citizen's Broadband Radio Service (CBRS)
- First Net, Band 14
- Best in Class PIM
- 5th Generation "5G" Networks
- License Assisted Access (LAA)
- All-Band (UHF - 6GHz) Solutions
- SISO and MIMO Solutions

Clarity™ Product Family



■ Clarity™ Transparent Antenna with bent stem



■ Clarity™ Transparent Antenna

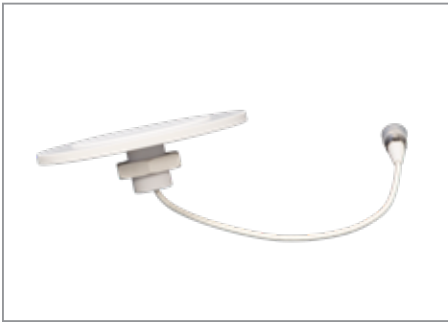


■ Clarity™ White Antenna

ULTRA-THIN CLARITY™ ANTENNAS

Clarity™ Series	Pulse Part Number	Freq, MHz	PIM Rating, dBc	Connector
Ultra-Thin Clear	DASUTCC500NF	608-960/1695-2200/2300-2700MHz, Antenna only	-155	N Female w/500mm pigtail
Ultra-Thin Clear	DASUTCCR500NF	608-960/1695-2200/2300-2700MHz, with Reflector	-155	N Female w/500mm pigtail
Ultra-Thin Clear	DASUTCC5004310	608-960/1695-2200/2300-2700MHz, Antenna only	-155	4.3-10 DIN Female w/500mm pigtail
Ultra-Thin Clear	DASUTCCR5004310	608-960/1695-2200/2300-2700MHz, with Reflector	-155	4.3-10 DIN Female w/500mm pigtail
Clarity	DASUTCCACC1	Reflector	N/A	N/A
Ultra-Thin White	DASUTWC500NF	608-960/1695-2200/2300-2700MHz Antenna Only	-155	N Female w/ 500mm pigtail
Ultra-Thin White	DASUTWCR500NF	608-960/1695-2200/2300-2700MHz, with Reflector	-155	N Female w/ 500mm pigtail
Ultra-Thin White	DASUTWC5004310	608-960/1695-2200/2300-2700MHz Antenna Only	-155	4.3-10 DIN Female w/500mm pigtail
Ultra-Thin White	DASUTWCR5004310	608-960/1695-2200/2300-2700MHz, with Reflector	-155	4.3-10 DIN Female w/500mm pigtail
Bent-Stem, Ultra-thin, Clear	DASUTLC500NF	608-960/1695-2200/2300-2700MHz	-155	N Female w/ 500mm pigtail
Bent-Stem, Ultra-thin, Clear	DASUTLC5004310	608-960/1695-2200/2300-2700MHz	-155	4.3-10 DIN Female





“SKINNY” ANTENNA FAMILY: For 4G / 5G carrier-grade installations

No stem, for simple, low profile installations in space constrained environments

Part No. Configuration	Coverage	Frequency, MHz	PIM, dBc	Connector, Color	Size
DASLPP5GNF SISO Ceiling Mount	4G / 5G B71 (T-Mobile) CBRS	617-960 / 1710-2700 / 3300-4200 MHz	-152	N-Female , White	7.05 inch dia. X 0.39 inch depth (179 dia. X 10 mm)
DASLPP5G4310 SISO Ceiling Mount	4G / 5G B71 (T-Mobile) CBRS	617-960 / 1710-2700 / 3300-4200 MHz	-152	4.3-10, White	7.05 inch dia. X 0.39 inch depth (179 dia. X 10 mm)



All-Band 4G / 5G LTE Antenna covering B71(T-Mobile), CBRS, and LAA (License Assisted Access) bands.

■ DASLTE500NFMIMO

Configuration	Part Number	Frequency, MHz	PIM Rating	Connector	Color	Size (inch / mm)
MIMO 4G / 5G LTE	DASLTE500NFMIMO	617-960/1710-2170/2300-2700/3400-3800/4900-5925 MHz	-155dBc	N-Female	White	Height 4.72 / 120 Length 8.73/222 Width 6.73/171

Note: DASLTE5004310MIMO with 4.3-10 Connector coming soon. Contact Factory for details

Aesthetically pleasing and low profile antennas!



■ PSIBVHF and PSIBVU78
NEW PSIBVU78IP **weather proof** model available

■ Installed Condition: PSIBVHF and PSIBVU78

■ PSUTWCNF

■ P-Thinity

VHF and UHF In-Building Antennas!

PUBLIC SAFETY DAS PRODUCTS							
Application	Frequency, MHz	Series	Part Number	PIM Rating	Connector	Color	Size (inches / mm)
UHF + 700/800	380-570; 698-960	Clarity™ -Pearl	PSUTWCNF	N/A	N-Female	White	12.3" (311mm) Diameter. 0.37" (9.5mm) Below ceiling
VHF	132-174	V-Thinity™	PSIBVHF	N/A	N-Female	White	15.0x15.0 inch (380x380mm) Below Ceiling: 0.060 inch (1.5mm)
VHF + UHF + 700/800	132-174; 380-570; 700-960	V-Thinity™	PSIBVU78	N/A	N-Female	White	15.4 x 13.6 inch (391 x 346mm) Below Ceiling: 0.06 inch (1.5mm)
NEW! VHF + UHF + 700/800 (WeatherProof)	132-174; 380-570; 700-960	V-Thinity™ IP65	PSIBVU78IP	N/A	N-Female	White	15.4 x 13.6 inch (391 x 346mm) Below Ceiling: 0.06 inch (1.5mm)
NEW! 700 / 800 Bands, Low Profile	698 - 960 MHz	P-Thinity™	PSDASLPNF	N/A	N-Female	White	7.05 inch dia. X 0.39 inch depth (179 dia. X 10 mm)





■ PSDASxx Series Top View

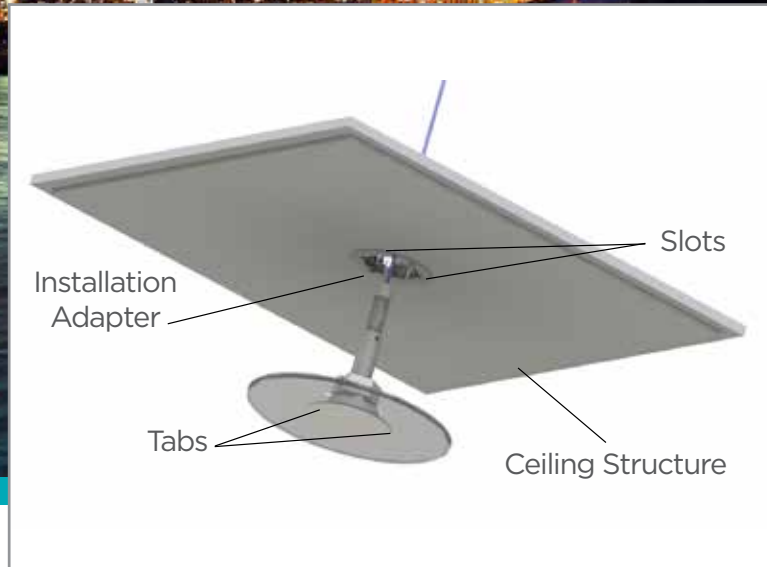


■ PSDASxx Series Bottom View

PUBLIC SAFETY + CARRIER COMBO DAS PRODUCT

Application	Frequency, MHz	Series	Part Number	PIM Rating	Connector	Color	Size (inches / mm)
UHF (Tetra) + 3G/4G LTE (or WiFi)	380-520; 698-960; 1710-2700; 4900-6000	5Bar	PSDAS4310F	N/A	4.3-10	White	11.3 Dia x 5.4 Tall (288mm Dia. X 136mm Tall)
UHF (Tetra) + 3G/4G LTE (or WiFi)	380-520; 698-960; 1710-2700; 4900-6000	5Bar	PSDAS4310FP	-150dBc (@2x20 watts)	4.3-10	White	11.3 Dia x 5.4 Tall (288mm Dia. X 136mm Tall)
UHF (Tetra) + 3G/4G LTE (or WiFi)	380-520; 698-960; 1710-2700; 4900-6000	5Bar	PSDASNF	N/A	N-Female	White	11.3 Dia x 5.4 Tall (288mm Dia. X 136mm Tall)
UHF (Tetra) + 3G/4G LTE (or WiFi)	380-520; 698-960; 1710-2700; 4900-6000	5Bar	PSDASNFP	-150dBc (@2x20 watts)	N-Female	White	11.3 Dia x 5.4 Tall (288mm Dia. X 136mm Tall)





■ Typical Assembly using the Clarity Installation Adapter



■ Above-Ceiling Antenna Holder



■ Above-Ceiling Antenna Holder (Shown with Antenna Installed)



■ DAS PIM-Blocker Absorber



■ Clarity Installation Adapter

Items	Part Number	Function	Material Size	Comments
Above-Ceiling Antenna Holder	DASACHOLDER	Support antennas above ceiling tile rails.	Polycarbonate; 618x192x122 mm (24.4x7.6x4.4 inch)	The holder includes snap-in-place brackets for easy installation onto most standard ceiling tile rails. Antennas are robustly held in place so the antennas cannot be disturbed when building tenant moves ceiling tiles and impacts the antenna. The plastic construction ensures PIM is not aggravated unlike competitive ferrous metal holders.
Clarity Installation Adapter	DASCLINSERT	Blind-hole installation of Clarity Antennas.	94 mm dia (3.7 inch dia)	The Installation adapter allows one-sided (blind-hole) installation of Clarity antennas when the building construction does not provide access to the backside of the antenna for installation of the provided nut. Ideal for hardpan, drywall, plank and other architectural ceiling types.
PIM-Blocker Absorber	DASACABSORBER	System PIM Reduction	(19.7 x 19.7 x 2.0 inch)	The PulseLarsen PIM Blocker absorber bag can reduce PIM by as much as 40dB when placed between antennas and the surrounding structure. The PulseLarsen PIM Blocker can also be used to improve isolation in BDA Repeater applications. See Datasheet for more details.





■ Installed Configuration

■ Installed Configuration

■ Frame and Screws

■ Ground Plane

LOW COST MONOPOLE WITH GROUND PLANE SOLUTION

		SLPT White Series Antenna		IceFin™ Series Antenna		Peak Gain*	PIM Rating	Connector	Mechanical Properties
Application	Frequency, MHz	Color	Part Number	Color	Part Number				
700 / 800	698-869	White	SLPT698/869DMNW	Transparent	ICEFIN698/869DMN	3.3 dBi	None	N-Female Direct Mount	1.5" dia x 3.1" tall (38mm dia. X 79 mm tall)
2G / 3G / 4G LTE	698-960 / 1710-2700	White	SLPT698/2170DMNW	Transparent	ICEFINLDMN	3.5 dBi (lower band) 4.95 dBi (upper band)	None	N-Female Direct Mount	1.5" dia x 3.1" tall (38mm dia. X 79 mm tall)

* Gain when using ground plane

Application	Part Number	Mechanical Properties
Ground Plane (for use with above antennas)	ICEFIN-GP	15.75" Dia. X 0.040" thk (400mm Dia. X 1mm thk) Material: Aluminum"
Frame (for use with above antennas)	ICEFIN-F	2.95" Dia. (74.9mm Dia).





OTHER DAS ANTENNAS

3G/4G LTE BATON PART NUMBER	FREQUENCY (MHZ)	HEIGHT (IN/MM)	GAIN (DBI)	CONNECTOR
Single Band Baton Style				
RO17102NM	1710-2170	4.5 / 115	2	N Female
Multi Band Baton Style				
W5067	698 - 960 / 1710 - 2170 / 2400 - 2700	9.1 / 230	1 / 2	N Female
RO8061/21702NF	806-960/1710-2170	8.5 / 216	1 / 2	N Female
RO8061/21702NM	806-960/1710-2170	8.5 / 216	1 / 2	N Male
RO8063/21704NF	806-960/1710-2170	15.3 / 389	3 / 4	N Female
RO8063/21704NM	806-960/1710-2170	15.3 / 389	3 / 4	N Male
W5030	2.4-2.5/5.15-5.875 GHz	6.8 / 173	4 / 6	N Male
Public Safety Antennas	Model Number (**)	Available Frequencies	Gain	Connector
Donor Yagi	YA34xxWN	406 thru 512Mhz	11 dBi	N Female
Donor Yagi	YA5xxW	740 thru 960	11 dBi	N Female
Donor Yagi	YA6xxW	740 thru 960	8 dBi	N Female
Base Station	FB24xx WA	406 thru 470	5.4 dBi	N Female
Base Station	FB3xxx	740 thru 960	5.4 dBi	N Female
Base Station	FB35T900x	902 thru 928	7.2 dBi	N Female

**See specific datasheet for Part Number and coverage frequency.





Pulse Background And Capabilities

We are the maker of precision-engineered ruggedized antennas for public safety markets, as well as extremely high volume, high technology antennas and antenna modules for today's Smartphone's and other consumer electronics. Pulse services the wireless infrastructure carriers with custom integrated small cell antennas for the leading Small Cell base station OEMs. Pulse has manufactured and sold over 2 billion antennas to date in our Pulse-owned factories in China and the USA. Pulse has engineering teams on all continents. Make Pulse your choice for Distributed Antenna System solutions.

Through its rich history in the Larsen and LK brands, Pulse has over 50 years in the antenna business.



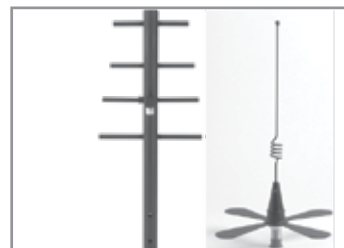
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■ Clarity™ White Antenna



■ DASLTE500NFMIMO



■ PUBLIC SAFETY



■ RADOME OMNI, SLPT

