

Distributed Antenna System

There's no question that mobile devices, such as smartphones, need to be reliable indoors.

To make this possible, licensed RF signals from outdoor cell towers need to travel through buildings to reach devices. Instead of allowing signals to penetrate, building materials like concrete, steel and low-E glass often block or reflect signals instead. As more users and data join the network, performance continues to degrade.

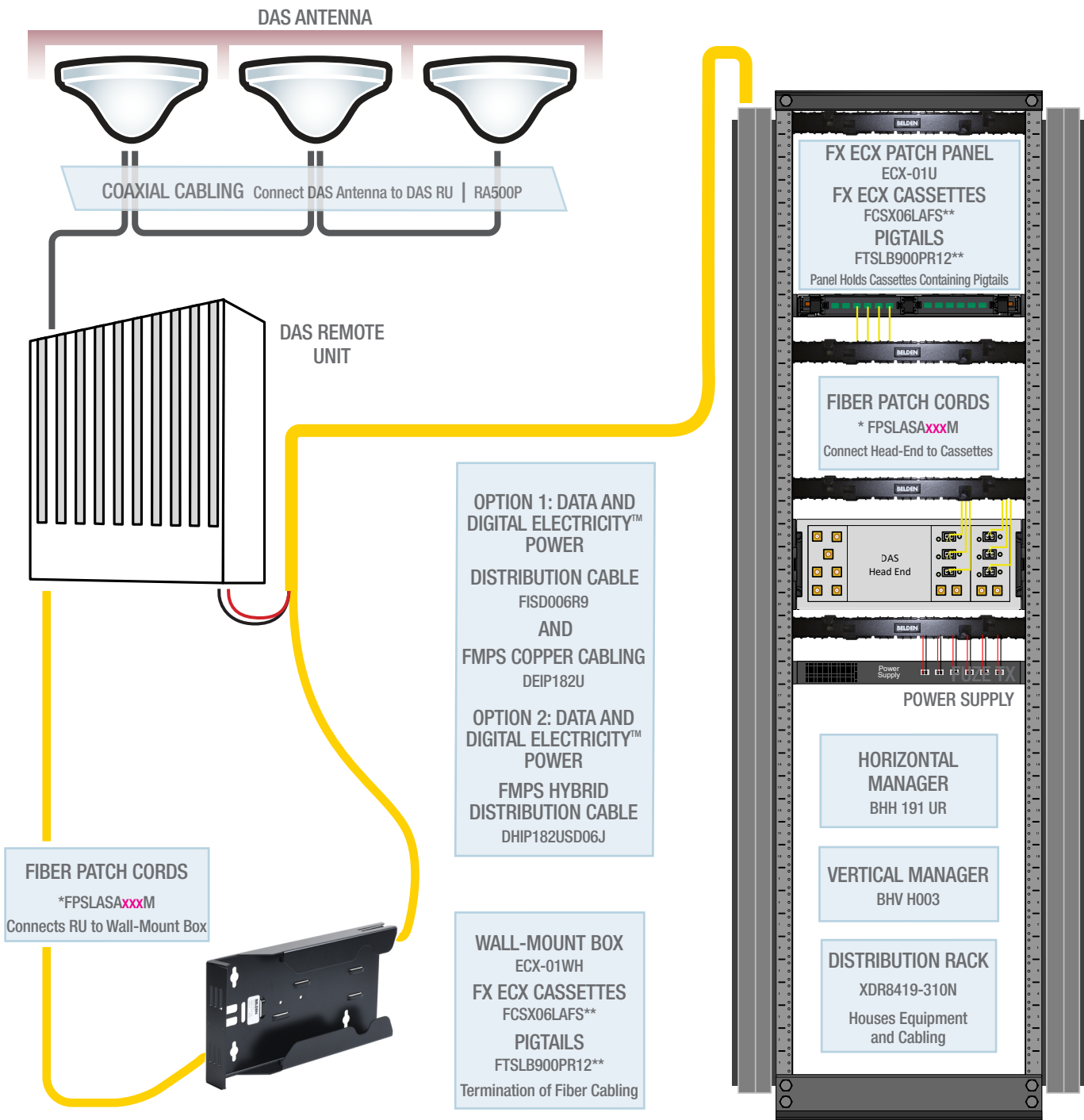
A distributed antenna system (DAS) extends licensed networks inside buildings. It conditions, filters and combines wireless outdoor signals with other carrier signals to improve indoor wireless coverage and data speeds, while reducing dropped calls and unreliable connectivity. By spreading cellular signals throughout a building, a DAS keeps people and their devices connected indoors.

A DAS consists of a centralized head-end connected through fiber to remote units (repeaters) in IT closets, server rooms and concourse areas to boost indoor signals and push cellular signals out to antennas. A mix of fiber, copper and/or coax cables and connectivity support this system.



Belden offers a full suite of copper and fiber cable and connectivity systems that support every type of technology you'll need now and in the future. Learn more about how Belden is uniquely positioned to provide reliable products and services for your jobs. Visit belden.com/Solutions/Smart-Building-Solutions.

Distribution Antenna System Example



* xxx is replaced by length in meters (002 is 2 m)

** Cassettes and pigtails are ordered separately

✿ The system configurations shown are illustrative. We offer a variety of options to meet your specific use case and project constraints. Please reach out to Belden, and our solutions consultants will gladly assist you in configuring the systems you need.

Distribution Antenna System Example Checklist

	Belden Part Number	Description
 Fiber Cables	FISD006P9	FX Indoor OS2 Distribution Tight Buffer, 6f OFNP, Yellow Jacket
	FDS006P9	FX Indoor/Outdoor OS2 Distribution Tight Buffer, 6f OFNP, Black Jacket
	FISD006A9	FX Indoor OS2 Distribution Tight Buffer, 6f OFCP, AIA, Yellow Jacket
	FDS006A9	FX Indoor/Outdoor OS2 Distribution Tight Buffer, 6f OFCP, AIA, Black Jacket
 Pigtails	FXFSTOSPL	FX Fusion Splicer Kit
	FTSLB900PR12	FX Field-Term Pigtail, OS2, LC/APC Simplex, Tight Buffer, 900 µm, 12f, 2 m
	FTSSB900PR12	FX Field-Term Pigtail, OS2, SC/APC Simplex, Tight Buffer, 900 µm, 12f, 2 m
	FXFUHS900AB25	Heat Shrink Protector Sleeves, 900 µm to 900 µm, 2.5 mm dia x 60 mm, 25pcs
 Patch Cords	FPSLALA002M	FX Patch Cord, OS2, LC/APC Duplex - LC/APC Duplex, 2M, A-TO-B
	FPSSASA002M	FX Patch Cord, OS2, SC/APC Duplex - SC/APC Duplex, 2M, A-TO-B
	FPSLASA002M	FX Patch Cord, OS2, LC/APC Duplex - SC/APC Duplex, 2M, A-TO-B
 Patch Panels	ECX-01U	FX ECX 1U Patch Panel Housing
	ECX-02U	FX ECX 2U Patch Panel Housing
	ECX-04U	FX ECX 4U Patch Panel Housing
	ECX-BRKTMT-0	FX ECX 4U Rack-Mounting Bracket, Flush
	ECX-LOCKKIT	FX ECX Door Lock Kit
 Cassettes	FCSX06LAFS	FX ECX Splice Cassette, OS2, LC/APC Duplex, 6 Port, 12f, Green
	FCSX12LAFS	FX ECX Splice Cassette, OS2, LC/APC Duplex, 12 Port, 24f, Green
	FCSX03SAFS	FX ECX Splice Cassette, OS2, SC/APC Duplex, 3 Port, 6f, Green
	FCSX06SAFS	FX ECX Splice Cassette, OS2, SC/APC Duplex, 6 Port, 12f, Green
 Wall-Mount Boxes	ECX-01WH	FX ECX Single Cassette Holder
 FMPS Cables	DEIP162U	FMPS Copper Only 16 AWG, 2 Cu Pairs, Plenum
	DEIP182U	FMPS Copper Only 18 AWG, 2 Cu Pairs, Plenum
	DHIP162USD06J	FMPS Hybrid, 16 AWG, 2 Cu Pairs, 6f, OS2, Distribution, 4.5 mm Sub, Plenum
	DHIP182USD06J	FMPS Hybrid, 18 AWG, 2 Cu Pairs, 6f, OS2, Distribution, 4.5 mm Sub, Plenum
 Coaxial Cables	RA500P 0061000	1/2" Air Plenum Coax, Corrugated Copper; Blue, 1000 ft Reel
	RA500P 3651000	1/2" Air Plenum Coax, Corrugated Copper; Off-White, 1000 ft Reel
	RA500R 0101000	1/2" Low Loss, Corrugated Copper, Riser Rated Coax, Black, 1000 ft Reel
 Racks and Managers	XDR8419-3122836	Four-Post Distribution Rack
	XDR8419-310N	Two-Post Distribution Rack
	BHH 191 UR	Horizontal Manager
	BHV H003	Vertical Manager