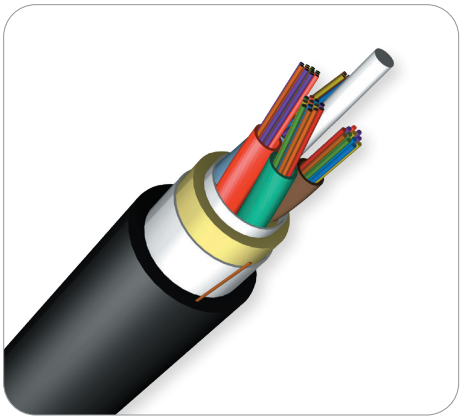


Mini-Span® ADSS Cable

AFL Mini-Span All-Dielectric Self-Supporting (ADSS) cable is designed for aerial distribution power lines. As its name indicates, there are no metallic components and the cable does not require a support or messenger wire. Mini-Span ADSS cables are a single jacket design intended for the shorter pole-to-pole span lengths in a distribution environment. The Mini-Span product families streamline aerial fiber optic hardware selection with various fiber counts in standardized diameters.

Applications

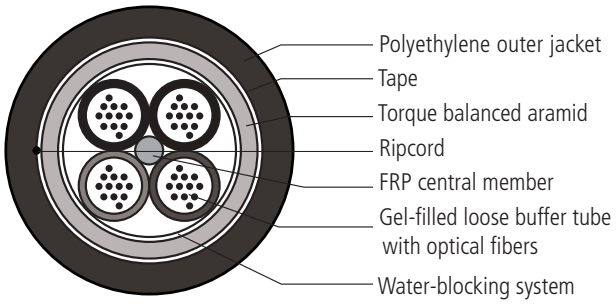
- Electric utility distribution power lines
  - Framed-in supply or communications space
- Underground duct
- Enterprise OSP networks
- Fiber-to-the-X networks

Features

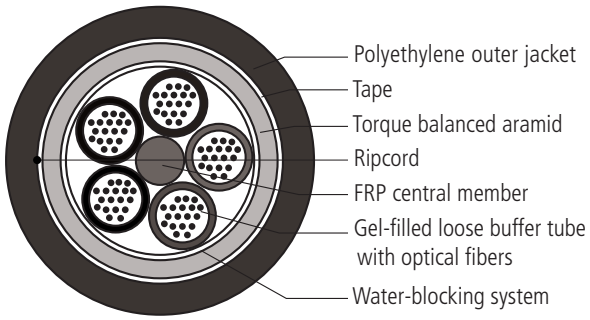
- Gel-filled tubes are reverse-oscillated to allow slack for mid-span access
- Up to 144 fibers in cable
- Pole-to-pole span lengths range from 50 feet to over 1000 feet
- Single jacket design decreases the diameter and weight when compared to double jacket ADSS cable
- No separation requirement of ADSS from conductors per National Electric Safety Code (NESC) section 235

Typical Cable Components

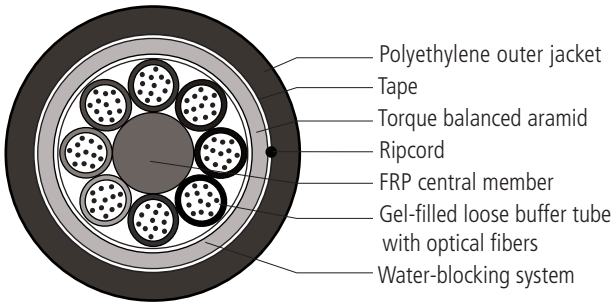
4 Position 383



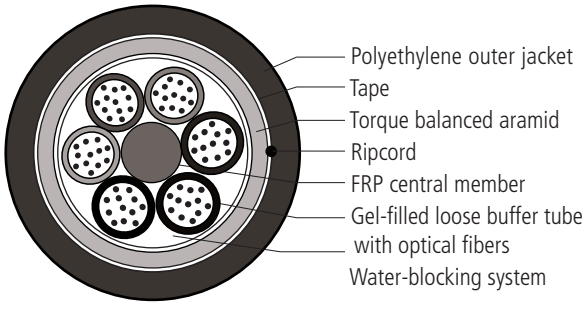
5 Position 424



8 Position 535



6 Position 535



Installation Information

CABLE	NESC SPANS (@ 1.5% INITIAL SAG) FEET (METERS)			MAX. SAGGING TENSION		MAX. LOADING OPERATING TENSION		MIN. BENDING RADIUS (DYNAMIC)		MIN. BENDING RADIUS (STATIC)	
	LIGHT	MEDIUM	HEAVY	lbs	N	lbs	N	inches	cm	inches	cm
Mini-Span 383	450 (137)	300 (91)	180 (55)	183	814	402	1,785	8	20	6	15
Mini-Span 424	600 (183)	440 (134)	275 (84)	424	1886	707	3145	9	22	6.5	16.5
Mini-Span 535	1050 (320)	850 (259)	575 (175)	1,306	5,809	1,783	7,936	13	27	8	20.5

continued

Mini-Span® ADSS Cable

Optical Information

CABLE	MAXIMUM ATTENUATION (db/km)			BANDWIDTH (MHz•km)		
	SINGLE-MODE (1310 nm/1550 nm)	MULTIMODE *62.5/125 µm (850 nm/1300 nm)	MULTIMODE 50/125 µm (850 nm/1300 nm)	SINGLE-MODE (1310 nm/1550 nm)	MULTIMODE *62.5/125 µm (850 nm/1300 nm)	MULTIMODE 50/125 µm (850 nm/1300 nm)
Mini-Span 383	0.35/0.25	3.5/1.2	2.9/0.9	n/a	200/600	500/500
Mini-Span 424						
Mini-Span 535						

* All 62.5/125 µm multimode ADSS cable transmission performances meet or exceed FDDI requirements. Premium transmission performance fibers available on request.

Mechanical Data

CABLE	FIBER COUNT	NOMINAL DIAMETER		NOMINAL WEIGHT		MAXIMUM LENGTHS*			
						SINGLE-MODE		MULTIMODE	
		inches	mm	lbs/1000' ft	kg/km	feet	meters	feet	meters
Mini-Span 383	2-48	0.383	9.7	49	72	32,800	10,000	26,250	8,000
Mini-Span 424	2-60	0.424	10.8	57	84	32,800	10,000	26,250	8,000
Mini-Span 535	2-144	0.535	13.6	100	148	32,800	10,000	26,250	8,000

* Longer lengths may be available upon request.

Recommended Products for ADSS Fiber Optic Cable

DESCRIPTION	AFL NO.
Fiber Optic Cable Accessories	
ADSS Mini Deadends	Refer to the ADSS Mini Deadends spec sheet for specific AFL No.
ADSS Formed Wire Deadends	Refer to the ADSS Formed Wire Deadends spec sheet for specific AFL No.
ADSS Suspension Unit	Refer to the ADSS Suspension Unit spec sheet for specific AFL No.
ADSS Trunnion Assemblies	Refer to the ADSS Trunnion Assemblies spec sheet for specific AFL No.
ADSS Temporary Grip	Refer to the ADSS Temporary Grip spec sheet for specific AFL No.
AGC Downlead Clamp for ADSS	Refer to the AGC Downlead Clamp for ADSS spec sheet for specific AFL No.
AVD Series Spiral Vibration Dampers	Refer to the AVD Series Spiral Vibration Dampers spec sheet for specific AFL No.
Coil Brackets	Refer to the Coil Brackets spec sheet for specific AFL No.

Temperature Specifications

TEMPERATURE RANGE	
Operation	-40°C to +70°C
Storage	-50°C to +70°C
Installation	-30°C to +70°C

Qualifications

GOVERNING BODY	STANDARD CODE	COMPONENT
IEEE	1222	Cable
TIA	598-D	Fiber

Contact AFL for your customized ADSS solution.

continued

Mini-Span® ADSS Cable

Ordering Information

CABLE	FIBER COUNT	FIBERS PER TUBE	NUMBER OF TUBES / FIBERS	AFL NO.		
				SINGLE-MODE	MULTIMODE 62.5/125	MULTIMODE 50/125
Mini-Span 383	6	6	1 w/6 (3 fillers)	AE0069C420AA0	AE0066C420AA0	AE0065C420AA0
	12	12	1 w/12 (3 fillers)	AE0129C420AA0	AE0126C420AA0	AE0125C420AA0
	18	12	1 w/12, 1 w/6 (2 fillers)	AE0189C420AA0	AE0186C420AA0	AE0185C420AA0
	24	12	2 w/12 (2 fillers)	AE0249C420AA0	AE0246C420AA0	AE0245C420AA0
	30	12	2 w/12, 1 w/6 (1 filler)	AE0309C420AA0	AE0306C420AA0	AE0305C420AA0
	36	12	3 w/12 (1 filler)	AE0369C420AA0	AE0366C420AA0	AE0365C420AA0
	48	12	4 w/12	AE0489C420AA0	AE0486C420AA0	AE0485C420AA0
Mini-Span 424	6	6	1 w/6 (4 fillers)	AE0069C520AA4	AE0066C520AA4	AE0065C520AA4
	12	12	1 w/12 (4 fillers)	AE0129C520AA4	AE0126C520AA4	AE0125C520AA4
	18	12	1 w/12, 1 w/6 (3 fillers)	AE0189C520AA4	AE0186C520AA4	AE0185C520AA4
	24	12	2 w/12 (3 fillers)	AE0249C520AA4	AE0246C520AA4	AE0245C520AA4
	30	12	2 w/12, 1 w/6 (2 fillers)	AE0309C520AA4	AE0306C520AA4	AE0305C520AA4
	36	12	3 w/12 (2 fillers)	AE0369C520AA4	AE0366C520AA4	AE0365C520AA4
	48	12	4 w/12 (1 filler)	AE0489C520AA4	AE0486C520AA4	AE0485C520AA4
	60	12	5 w/12 (no fillers)	AE0609C520AA4	AE0606C520AA4	AE0605C520AA4
Mini-Span 535	6	6	1 w/6 (7 fillers)	AE0069C820EA7	AE0066C820EA7	AE0065C820EA7
	12	12	1 w/12 (7 fillers)	AE0129C820EA7	AE0126C820EA7	AE0125C820EA7
	18	12	1 w/12, 1 w/6 (6 fillers)	AE0189C820EA7	AE0186C820EA7	AE0185C820EA7
	24	12	2 w/12 (6 fillers)	AE0249C820EA7	AE0246C820EA7	AE0245C820EA7
	30	12	2 w/12, 1 w/6 (5 fillers)	AE0309C820EA7	AE0306C820EA7	AE0305C820EA7
	36	12	3 w/12 (5 fillers)	AE0369C820EA7	AE0366C820EA7	AE0365C820EA7
	48	12	4 w/12 (4 fillers)	AE0489C820EA7	AE0486C820EA7	AE0485C820EA7
	60	12	5 w/12 (3 fillers)	AE0609C820EA7	AE0606C820EA7	AE0605C820EA7
	72	12	6 w/12 (2 fillers)	AE0729C820EA7	AE0726C820EA7	AE0725C820EA7
	84	12	7 w/12 (1 filler)	AE0849C820EA7	AE0846C820EA7	AE0845C820EA7
	96	12	8 w/12 (no fillers)	AE0969C820EA7	AE0966C820EA7	AE0965C820EA7
	144	24	6 w/24 (no fillers)	AE1449O620EB0	AE1446O620EB0	AE1445O620EB0

Contact customer service for price and availability. Non-zero dispersion-shifted fibers are also available.

continued

Mini-Span® ADSS Cable

Sag and Tension Information

CABLE	SPAN feet	SPAN meters	INITIAL SAG %	INITIAL TENSION lbs	INITIAL TENSION N	NESC LIGHT LOADING SAG %	NESC LIGHT LOADING TENSION lbs	NESC LIGHT LOADING TENSION N	NESC MEDIUM LOADING SAG %	NESC MEDIUM LOADING TENSION lbs	NESC MEDIUM LOADING TENSION N	NESC HEAVY LOADING SAG %	NESC HEAVY LOADING TENSION lbs	NESC HEAVY LOADING TENSION N
MINI-SPAN 383	50	15	1.5	20	89	0.5	76	337	2.2	108	482	3.2	161	717
	75	23	1.5	30	133	0.5	103	457	2.4	146	648	3.6	215	956
	100	30	1.5	41	182	0.6	128	568	2.6	179	798	4.0	263	1,171
	125	38	1.5	51	227	0.6	151	671	2.8	211	938	4.2	308	1,370
	150	46	1.5	61	271	0.6	173	768	2.9	240	1,070	4.5	350	1,558
	175	53	1.5	71	316	0.6	194	862	3.0	269	1,196	4.7	390	1,736
	200	61	1.5	81	360	0.7	214	952	3.2	296	1,317	—	—	—
	225	69	1.5	91	405	0.7	234	1,040	3.3	322	1,434	—	—	—
	250	76	1.5	101	449	0.7	253	1,125	3.4	348	1,547	—	—	—
	275	84	1.5	112	498	0.7	272	1,209	3.5	372	1,657	—	—	—
	300	91	1.5	122	543	0.7	290	1,290	3.5	397	1,765	—	—	—
	325	99	1.5	132	587	0.8	308	1,370	—	—	—	—	—	—
	350	107	1.5	142	632	0.8	325	1,448	—	—	—	—	—	—
	375	114	1.5	152	676	0.8	343	1,525	—	—	—	—	—	—
	400	122	1.5	162	721	0.8	360	1,601	—	—	—	—	—	—
	425	130	1.5	172	765	0.8	377	1,676	—	—	—	—	—	—
	450	137	1.5	183	814	0.8	393	1,750	—	—	—	—	—	—
MINI-SPAN 424	50	15	1.0	35	156	0.4	104	463	1.7	142	632	2.6	207	921
	75	23	1.0	53	236	0.4	142	632	1.9	191	850	3.0	275	1,223
	100	30	1.0	71	316	0.5	176	783	2.1	235	1,095	3.2	337	1,499
	125	38	1.0	88	391	0.5	208	925	2.2	276	1,228	3.4	395	1,757
	150	46	1.0	106	472	0.5	238	1,059	2.4	315	1,401	3.6	449	1,997
	175	53	1.0	124	552	0.5	268	1,192	2.5	353	1,570	3.8	501	2,229
	200	61	1.0	141	627	0.6	296	1,317	2.6	389	1,730	4.0	50	2,447
	225	69	1.0	159	707	0.6	324	1,441	2.7	424	1,886	4.1	598	2,660
	250	76	1.0	177	787	0.6	351	1,561	2.7	458	2,037	4.2	645	2,869
	275	84	1.0	194	863	0.6	378	1,681	2.8	491	2,184	4.3	690	3,069
	300	91	1.0	212	943	0.6	404	1,737	2.8	524	2,331	—	—	—
	325	99	1.0	230	1,023	0.6	429	1,908	2.9	556	2,473	—	—	—
	350	107	1.0	247	1,099	0.6	455	2,024	3.0	587	2,611	—	—	—
	375	114	1.0	265	1,179	0.6	479	2,131	3.0	618	2,749	—	—	—
	400	122	1.0	283	1,259	0.6	504	2,242	3.1	648	2,882	—	—	—
	425	130	1.0	300	1,334	0.7	528	2,349	3.1	678	3,016	—	—	—
	450	137	1.0	318	1,415	0.7	552	2,455	3.2	703	3,145	—	—	—
	475	145	1.0	336	1,495	0.7	576	2,562	—	—	—	—	—	—
	500	152	1.0	353	1,570	0.7	600	2,669	—	—	—	—	—	—
	525	160	1.0	371	1,650	0.7	623	2,771	—	—	—	—	—	—
	550	168	1.0	389	1,730	0.7	646	2,874	—	—	—	—	—	—
	575	175	1.0	406	1,806	0.7	669	2,976	—	—	—	—	—	—
	600	183	1.0	424	1,886	0.7	692	3,078	—	—	—	—	—	—

continued

Mini-Span® ADSS Cable

Sag and Tension Information

CABLE	SPAN feet	SPAN meters	INITIAL SAG %	INITIAL TENSION* lbs	INITIAL TENSION* N	NESC LIGHT LOADING SAG %	NESC LIGHT LOADING TENSION* lbs	NESC LIGHT LOADING TENSION* N	NESC MEDIUM LOADING SAG %	NESC MEDIUM LOADING TENSION* lbs	NESC MEDIUM LOADING TENSION* N	NESC HEAVY LOADING SAG %	NESC HEAVY LOADING TENSION* lbs	NESC HEAVY LOADING TENSION* N
MINI-SPAN 535	50	15	1	62	276	0.4	160	713	1.5	206	918	2.1	297	1,319
	100	30	1	124	552	0.5	274	1,220	1.7	347	1,542	2.5	489	2,176
	150	46	1	187	832	0.6	375	1,670	1.9	469	2,087	2.8	655	2,915
	200	61	1	249	1,108	0.6	469	2,088	2.1	582	2,590	3.1	807	3,588
	250	76	1	311	1,383	0.6	559	2,486	2.2	689	3,063	3.3	948	4,217
	300	91	1	373	1,659	0.6	645	2,868	2.3	790	3,515	3.4	1,082	4,813
	350	107	1	435	1,935	0.7	728	3,239	2.4	888	3,951	3.6	1,210	5,384
	400	122	1	497	2,211	0.7	810	3,601	2.5	983	4,374	3.7	1,334	5,935
	450	137	1	560	2,491	0.7	889	3,956	2.5	1,076	4,785	3.8	1,454	6,469
	500	152	1	622	2,767	0.7	968	4,304	2.6	1,166	5,188	3.9	1,571	6,988
	550	168	1	684	3,043	0.7	1,045	4,647	2.7	1,255	5,583	4.0	1,685	7,495
	575	175	1	715	3,180	0.7	1,083	4,817	2.7	1,299	5,778	4.1	1,741	7,745
	600	183	1	746	3,318	0.7	1,121	4,985	2.7	1,342	5,971	—	—	—
	650	198	1	808	3,594	0.8	1,196	5,320	2.8	1,428	6,353	—	—	—
	700	213	1	870	3,870	0.8	1,270	5,650	2.8	1,513	6,730	—	—	—
	750	229	1	933	4,150	0.8	1,344	5,978	2.8	1,597	7,102	—	—	—
	800	244	1	995	4,426	0.8	1,417	6,303	2.9	1,679	7,469	—	—	—
	850	259	1	1,057	4,702	0.8	1,489	6,625	2.9	1,761	7,833	—	—	—
	900	274	1	1,119	4,978	0.8	1,561	6,945	—	—	—	—	—	—
	950	290	1	1,181	5,253	0.8	1,633	7,263	—	—	—	—	—	—
	1,000	305	1	1,243	5,529	0.8	1,704	7,579	—	—	—	—	—	—
	1,050	320	1	1,306	5,809	0.8	1,775	7,894	—	—	—	—	—	—

* Tensions based on 8 position core used in 96 and fewer fiber designs.

Reel Information

REEL SPECS	REEL A		REEL B		REEL C		REEL D		REEL E	
ITEM	inches	cm	inches	cm	inches	cm	inches	cm	inches	cm
Reel Height	42	106.7	58	147.3	66	167.6	72	182.8	84	213.4
Reel Width Outside	36	91.4	38	96.5	42	106.7	42	106.7	40	101.6
Reel Width Inside	32	81.6	32	81.3	36	91.4	36	91.4	34	86.4
Drum Diameter	23	58.7	28	71.1	36	91.4	36	91.4	35	88.9
Arbor Hole Diameter	3	7.9	3	7.9	3	7.9	3	7.9	3	7.9
Reel Weight with Lagging	180 lbs	82 kg	420 lbs	191 kg	685 lbs	311 kg	710 lbs	320 kg	950 lbs	431 kg
Maximum Cable Length (feet/meters)										
Mini-Span 383	10,827 ft	3,300 m	25,202 ft	7,700 m	32,800 ft	10,000 m	—	—	—	—
Mini-Span 424	8,850 ft	2,700 m	20,250 ft	6,200 m	26,250 ft	8,000 m	32,800 ft	10,000 m	—	—
Mini-Span 535	5,500 ft	1,675 m	12,800 ft	3,900 m	17,225 ft	5,250 m	26,000 ft	6,920 m	32,800 ft	10,000 m

AFL provides ADSS cable on several standard sizes of non-returnable wooden reels. Non-standard reel sizes are available on request.