

PLEX Series Cable

ANOISON PLEX is a high frequency flexible coaxial cable series. Using special expanded PTFE tape dielectrics and combined with our broad range of RF/Microwave connectors PLEX cable series allows the creation of high performance assemblies with excellent Loss, VSWR and Phase Stability characteristics. ANOISON PLEX is the perfect answer for many applications including VNA test cables and radar systems.



Mechanical Characteristics

Cable Type	PLEX-090	PLEX-135	PLEX-140	PLEX-190	PLEX-210	PLEX-220	PLEX-310
Dimensions	MM INCH	MM INCH	MM INCH	MM INCH	MM INCH	MM INCH	MM INCH
Inner Conductor	0.51 0.020	0.81 0.032	0.91 0.036	1.40 0.055	1.45 0.057	1.63 0.064	2.30 0.091
Dielectric	1.43 0.056	2.25 0.089	2.50 0.098	3.80 0.150	4.00 0.157	4.36 0.172	6.20 0.244
Outer Conductor	1.55 0.061	2.50 0.098	2.70 0.106	4.00 0.157	4.30 0.169	4.62 0.182	6.60 0.260
Braid	1.85 0.073	2.90 0.114	3.20 0.126	4.30 0.169	4.76 0.187	5.13 0.202	6.93 0.273
Jacket	2.20 0.087	3.50 0.138	3.60 0.142	4.80 0.189	5.20 0.205	5.68 0.224	7.80 0.307
Min. Static Bend Radius	11.00 0.433	17.00 0.669	18.00 0.709	25.00 0.984	20.00 0.787	22.00 0.866	35.00 1.378
Min. Dynamic Bend Radius	22.00 0.866	35.00 1.378	36.00 1.417	52.00 2.05	52.00 2.05	56.00 2.205	80.00 3.150
Weight	18 g/m	33 g/m	33 g/m	52 g/m	50 g/m	50 g/m	130 g/m
Temperature Range(°C)	-65 to +125	-65 to +165	-65 to +165	-65 to +165	-65 to +165	-65 to +165	-65 to +165

Electrical Characteristics

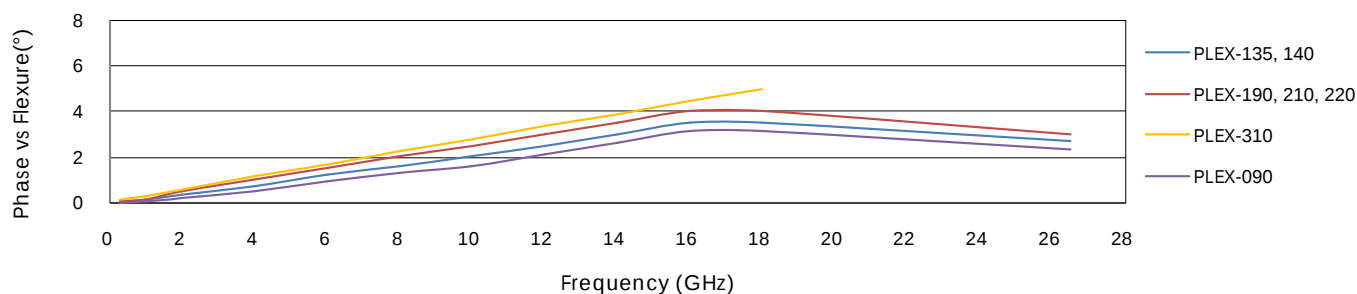
Cable Type	PLEX-090	PLEX-135	PLEX-140	PLEX-190	PLEX-210	PLEX-220	PLEX-310
Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
Velocity of Propagation	80%	83%	83%	83%	83%	83%	83%
Shielding Effectivene	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB	>90 dB
Time Delay	4.17 nS/m	4.02 nS/m	4.02 nS/m	4.02 nS/m	4.02 nS/m	4.02 nS/m	4.02 nS/m
Capacitance	81.4 pF/m	74 pF/m	80 pF/m	83 pF/m	80 pF/m	80 pF/m	80 pF/m
Inductance	0.20 uH/m	0.31 uH/m	0.31 uH/m	0.31 uH/m	0.31 uH/m	0.31 uH/m	0.31 uH/m
Cut-off Frequency	67 GHz	50 GHz	46 GHz	31 GHz	29 GHz	29 GHz	19 GHz
Dielectric withstanding voltage	500 VRMS	800 VRMS	1000 VRMS	1300 VRMS	1400 VRMS	1500 VRMS	2000 VRMS
Peak Power Rating	1.25KW	2.0 KW	2.5 KW	4.6 KW	5.0 KW	5.6 KW	10 KW

Attenuation & Average Power Typical @ 25°C and Seal Level

Frequency (GHz)	PLEX-090		PLEX-135		PLEX-140		PLEX-190		PLEX-210		PLEX-220		PLEX-310	
	dB/100m	CW	dB/100m	CW	dB/100m	CW	dB/100m	CW	dB/100m	CW	dB/100m	CW	dB/100m	CW
0.3	34.2	500	21.0	2989	20.4	2989	13.8	1608	12.5	1608	11.7	2290	8.4	3300
1	63.3	277	39.0	450	36.0	500	24.0	876	22.96	875	20.0	1100	14.5	1900
2	90.3	194	55.0	300	51.0	370	34.1	616	32.66	615	28.5	800	20.6	1350
4	129.3	135	80.0	225	73.0	260	48.6	432	46.58	431	41.0	520	29.5	900
6	159.8	110	99.0	175	90.0	210	59.9	351	57.4	350	50.8	450	36.5	750
8	185.9	94	116.0	150	104.0	180	69.5	303	66.64	302	59.0	380	42.5	650
10	209.3	84	132.0	140	117.0	160	78.0	270	74.85	268	66.6	350	47.9	600
12	230.7	76	146.0	120	129.0	150	85.8	245	82.34	244	73.5	310	52.8	580
14	250.5	70	159.0	110	140.0	140	92.9	226	89.27	225	80.0	300	57.4	550
16	269.2	65	172.0	105	150.0	125	99.7	211	95.78	210	86.3	280	61.7	525
18	286.9	61	183.0	100	160.0	120	106.0	198	101.92	197	91.8	270	65.7	450
20	304.8	59	195.0	95	169.0	115	112.1	186	107.77	185	97.4	250	----	----
22	321.1	57	206.0	90	178.0	110	117.8	176	113.37	175	102.7	230	----	----
24	336.9	55	216.0	85	186.0	105	123.4	171	118.75	169	107.9	220	----	----
25	344.6	54	222.4	82	198.5	102	126.1	166	121.36	164	110.2	215	----	----
26	352.1	53	227.0	80	194.0	100	128.7	164	123.93	162	117.8	212	----	----
26.5	355.9	52.5	230.0	79	204.8	99.5	130.0	162	125.2	160	113.8	210	----	----
28	366.9	51	237.0	75	202.0	99	133.9	160	----	----	----	----	----	----
30	381.3	49	246.0	73	210.0	97	138.9	158	----	----	----	----	----	----
31	388.3	48	252.0	72	222.8	96	141.4	156	----	----	----	----	----	----
32	395.2	47	256.0	71	217.0	95	----	----	----	----	----	----	----	----
34	408.9	45	265.0	70	225.0	90	----	----	----	----	----	----	----	----
36	422.2	43	274.0	68	232.0	85	----	----	----	----	----	----	----	----
38	435.2	41	283.0	65	239.0	80	----	----	----	----	----	----	----	----
40	445.2	39	292.0	60	246.0	75	----	----	----	----	----	----	----	----
50	508.5	34	334.0	50	----	----	----	----	----	----	----	----	----	----
67	534.6	28	----	----	----	----	----	----	----	----	----	----	----	----

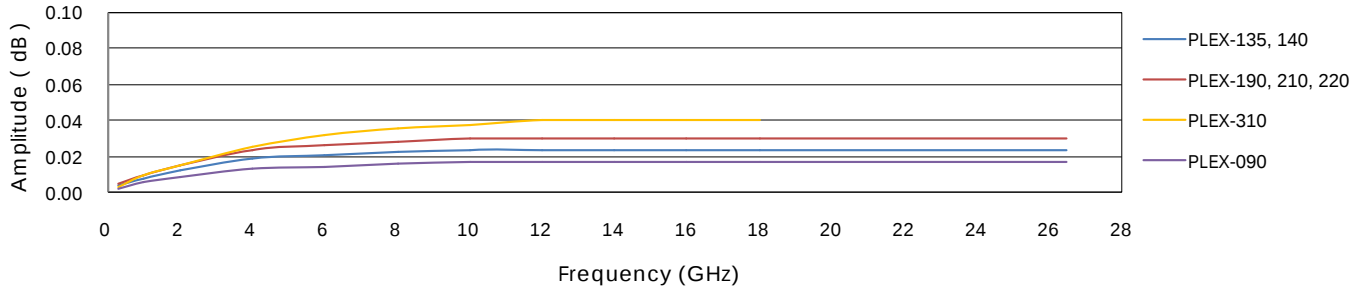
Phase Stability vs Flexure

Bent 360° @ Minimum Static Bending Radius

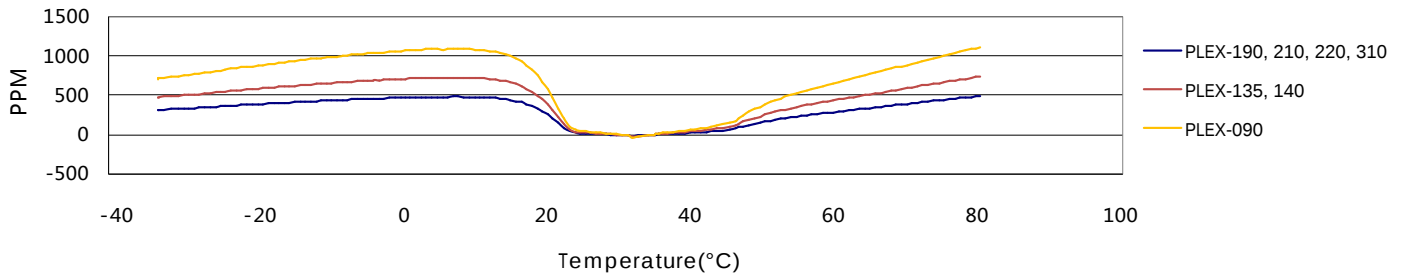


Amplitude Stability

Bent 360° @ Minimum Static Bending Radius



Phase Stability vs Temperature(PPM)



Competitors Cross Reference

GORE	IW	MCC	TIMES	HARBOUR	ANOISON
3506	1251	UFB088D	----	----	PLEX-090
----	1401	----	----	----	PLEX-135
3507	1501	UFB142A	HF130	----	PLEX-140
3449	----	----	----	----	PLEX-190
----	1801	UFB205A	----	----	PLEX-210
----	2301	----	----	----	PLEX-220
3450	2801	UFB311A	HF290	LLS290	PLEX-310