



7/8" Flexible Feeder, Foam Dielectric VXL Series – 50-ohm



VXL5-50

Description	Type No.
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Cable Ordering Information

Standard Cable	
7/8" Standard Cable, Standard Jacket	VXL5-50
Fire Retardant Cable	
7/8" Fire Retardant Jacket (CATVR)	VXL5RN-50
Low VSWR Cables	
7/8" Low VSWR, specify operating band	VXL5P-50-(**)
Jumper Cable Assemblies - See page 584	

**Insert suffix number from "Low VSWR Specifications" table, page 504

Characteristics

Electrical	
Impedance, ohms	50 ± 1
Maximum Frequency, GHz	4.9
Velocity, percent	88
Peak Power Rating, kW	90
dc Resistance, ohms/1000 ft (1000 m)	
Inner	0.82 (2.70)
Outer	0.36 (1.19)
dc Breakdown, volts	6000
Jacket Spark, volts RMS	8000
Capacitance, pF/ft (m)	22.6 (74.2)
Inductance, µH/ft (m)	0.06 (0.197)
Mechanical	
Outer Conductor	Copper
Inner Conductor	Copper Tube
Diameter over Jacket, in (mm)	1.08 (27.5)
Diameter over Copper Outer Conductor, in (mm)	0.98 (24.9)
Diameter Inner Conductor, in (mm)	0.371 (9.42)
Minimum Bending Radius, in (mm)	5 (125)
Number of Bends, minimum (typical)	15 (40)
Bending Moment, lb-ft (N•m)	12 (16.3)
Cable Weight, lb/ft (kg/m)	0.29 (0.43)
Tensile Strength, lb (kg)	225 (102)
Flat Plate Crush Strength, lb/in (kg/mm)	80 (1.4)

Attenuation and Average Power

Frequency MHz	Attenuation dB/100 ft	Attenuation dB/100 m	Average Power, kW
0.5	0.027	0.089	90.0
1	0.038	0.126	68.5
1.5	0.047	0.154	55.9
2	0.054	0.178	48.4
10	0.122	0.402	21.5
20	0.174	0.571	15.1
30	0.214	0.702	12.3
50	0.278	0.911	9.47
88	0.372	1.22	7.07
100	0.397	1.30	6.62
108	0.413	1.36	6.36
150	0.491	1.61	5.36
174	0.530	1.74	4.96
200	0.571	1.87	4.61
300	0.707	2.32	3.72
400	0.825	2.71	3.19
450	0.878	2.88	2.99
500	0.930	3.05	2.83
512	0.942	3.09	2.79
600	1.03	3.37	2.56
700	1.12	3.66	2.36
800	1.20	3.94	2.19
824	1.22	4.01	2.16
894	1.28	4.19	2.06
960	1.33	4.36	1.98
1000	1.36	4.46	1.94
1250	1.54	5.05	1.71
1500	1.71	5.60	1.54
1700	1.83	6.01	1.44
1800	1.89	6.21	1.39
2000	2.01	6.59	1.31
2100	2.07	6.78	1.27
2200	2.12	6.97	1.24
2300	2.18	7.15	1.21
3000	2.54	8.35	1.04
3400	2.74	8.99	0.961
4000	3.02	9.90	0.873
4900	3.41	11.2	0.772

Standard Conditions:

For Attenuation. VSWR 1.0 ambient temperature 20°C (68°F).

For Average Power, VSWR 1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), no solar loading.



N Male
V5PNM-RPC



N Female
V5PNF-RPC



7-16 DIN Male
V5PDM-RPC



7-16 DIN Female
V5PDF-RPC

Connectors

Interface	Type Number	Inner Contact Attachment	Outer Contact Attachment	Plating Code	Max. Length in (mm)	Max. Dia. in (mm)
N Male One-Piece	V5PNM-RPC	Captivated	Self-Flare	SG	2.9 (74)	1.46 (37.2)
N Female One-Piece	V5PNF-RPC	Captivated	Self-Flare	SG	2.7 (69)	1.46 (37.2)
7-16 DIN Male One-Piece	V5PDM-RPC	Captivated	Self-Flare	SS	2.7 (69)	1.46 (37.2)
7-16 DIN Female One-Piece	V5PDF-RPC	Captivated	Self-Flare	SS	2.33 (59)	1.46 (37.2)
7/8" EIA Flange	V5E78	Captivated	Self-Flare	SG	3.38 (86)	2.27 (56.7)

Plating Codes: SG - Silver Plated Body and Gold Plated Pin, SS - Silver Plated Body and Pin

Connector Accessories – See page 624

Factory Attached Connectors – For factory made cable assemblies and jumper cables, see pages 584-587.

Standard VSWR Specifications

Frequency Band, GHz	Type Number	Assembly VSWR, Maximum (R.L., dB)				
		1-25 ft (0.3-8 m)	25-100 ft (8-30 m)	100-200 ft (30-60 m)	200-500 ft (60-150 m)	Above 500 ft (150 m)
0.806-0.960 and 1.7-2.0	VXL5-50	1.09 (27.3)*	1.10 (26.4)*	1.12 (24.9)*	1.13 (24.3)*	1.13 (24.3)**
	VXL5RN-50	1.09 (27.3)*	1.10 (26.4)*	1.12 (24.9)*	1.13 (24.3)*	1.13 (24.3)**

* Expected typical values based on guaranteed 1.13 VSWR for bulk cable and Type N or DIN straight connectors. If guaranteed values are required, contact Andrew.

** 1.13 VSWR guaranteed for bulk standard cable lengths 500 ft and above.

Low VSWR Specifications, Type VXL5P-50-()

Frequency Band, GHz	Type Number	Using Connector Type*	Assembly VSWR, Maximum (R.L., dB)				
			1-25 ft (0.3-8 m)	25-100 ft (8-30 m)	100-200 ft (30-60 m)	200-500 ft (60-150 m)	Above 500 ft (150 m)
0.806-0.960	VXL5P-50-40	N	1.08 (28.3)	1.08 (28.3)	1.09 (27.3)	1.10 (26.4)	1.10 (26.4)
		7-16 DIN	1.08 (28.3)	1.08 (28.3)	1.09 (27.3)	1.10 (26.4)	1.10 (26.4)
0.806-0.960 and 1.7-2.3	VXL5P-50-42	N	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)
		7-16 DIN	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)
1.7-2.3	VXL5P-50-41	N	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)
		7-16 DIN	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)	1.10 (26.4)

* Connectors ordered separately

VSWR values apply to straight connectors only, are guaranteed for factory fit assemblies, and are typical for field cut lengths. If two different connector interfaces are selected, the higher VSWR value is guaranteed.



Accessories

Description	Type No.
Hangers – For more hangers, adapters and mounting hardware see pages 599-607	
Standard Hangers Kit of 10. Recommended maximum spacing is 3-ft (1 m). For different spacing recommendations, refer to Cable Hanger Spacing, page 593-598	42396A-5
Hardware Kit of 10. 3/8" bolts, lockwashers, nuts	
3/4" (19mm) long	31769-5
1" (25mm) long	31769-1
Snap-in Hangers Kit of 10. For prepunched 3/4" (19mm) holes on tower member or adapters, Recommended maximum spacing is 3-ft. For different spacing recommendations, refer to Cable Hanger Spacing, page 593-598	206706A-2
Click-On Hangers Kit of 10. Recommended maximum spacing is 3-ft	L5CLICK
Mounting Hardware see page 605	
Kwik-Clamps Kit of 10. See page 607 for hanger options	
Support/Hoisting Grip . Use at 200-ft (60m) intervals.	
Grip with one clamp	L5SGRIP
Support clamp kit of 10	L5SGRIP-5IK
Standard Hoisting Grip	19256B

Description	Type No.	
Grounding and Surge Protection – for additional grounding kits and our surge protection offerings, see pages 609-616		
SureGround Grounding Kit with standard weatherproofing		
Factory attached one-hole lug, 600 mm (24") lead	SGL5-06B1	
Factory attached two-hole lug, 600 mm (24") lead	SGL5-06B2	
Field attached two-hole lug, 1500 mm (59") lead	SGL5-15B4	
SureGround Plus Grounding Kit with weatherproofing boot		
Factory attached one-hole lug, 600 mm (24") lead	SGPL5-06B1	
Factory attached two-hole lug, 600 mm (24") lead	SGPL5-06B2	
Field attached two-hole lug, 1500 mm (59") lead	SGPL5-15B4	
Weatherproofing – for additional weatherproofing information see pages 617-618		
WeatherShield™ Connector Protection Housing		
VXL5 to LDF4	WS-L5L4	
VXL5 to FSJ4	WS-L5F4	
Cold Shrink Weatherproofing Kit		
7/8" Coax to 7/8" Coax N Connectors	241474-5	
1-5/8" Coax to 7/8" Coax N Connectors	241475-3	
7/8" Coax to 1/4" Coax	241475-12	
7/8" Coax to 3/8" or 1/2" Coax	241475-9	
7/8" Coax to Antenna Type N or DIN interface	241548-5	
7/8" to APTL5 Arrestors	241474-5	
Connector/Splice Weatherproofing Kit	221213	
Entry Systems – For entry systems offerings see pages 619-620		
Standard Cable Entry Boots	4" Boots	5" Boots
One Hole:	204679A-2	48939A-1
Two Hole:	204679A-18	–
Three Hole:	204679A-15	48939A-2
Tools – for additional tool offerings see pages 620-623		
EASIAx® Plus Automated Cable Prep Tool	CPTL5A	
EASIAx® Cutting Tool	222951	
Cable Flaring Tool	224368	
7/8" Connector Torque Wrench	244378	
DIN Connector Coupling Torque Wrench	244377	
N Connector Coupling Torque Wrench	244379	