1.8GHz Line Passives

Splitters, DCs, LPIs

A BELDEN BRAND

Features & Benefits

- Supports expanded bandwidth, 5 – 1800MHz frequency range
- Corrosion resistant aluminum alloy with polyurethane finish
- Neoprene weather gasket
- RF shielding to 120dB
- 15Amp current capacity for splitters and DCs
- 15 or 20Amp current capacity for LPIs
- Interchangeable faceplates
- Auto-seize pin capture, no seizure screws
- 6kV 3000A “combo” wave surge protection



12dB 1.8Ghz Line Passive

Overview

PPC’s series of line passives supports the cable industry’s bandwidth expansion to 1800MHz. The line passives are form factor compatible with one of the most popular brands and installation of these devices should be familiar to technicians. They can be used in both aerial and pedestal applications.

Available configurations are splitters, directional couplers (DCs) and line power inserters (LPIs):

- Splitters: 2-way, 3-way unbalanced and 3-way balanced, 15Amp capable
- Directional couplers: 8db, 12db and 16dB, 15Amp capable
- Line power inserters: 15Amp and 20Amp versions

All products are protected against electrical surges and can pass the industry’s most challenging 6kV 3kA surge test. These are the reliable products you can deploy today and use for years to come.

Technical Data

Specification	Value	
Power Passing	Splitters + DCs	15 Ampere, 60/90VAC
	LPIs	15 Ampere, (20A optional) 60/90VAC
Impedance	75 Ohms	
Mechanical	Construction	Aluminum with weather resistant polyurethane coating
	Dimensions (H x W x D)	4.8 in x 5.4 inx 3.2 in (122 mm x 137 mm x 81 mm)
	Ports	Qty. 4 of 5/8-inch x 24 UNEF-2B female
Environmental	Operating Temp	-40°F to 140ºF (-40ºC to 60ºC)
	Humidity	0 to 100% condensing
Surge Withstand	ANSI/SCTE 81 2012, IEEE C62.41-1991 Cat. B3 6kV, 3000A, 1.2 / 50usec to 8 / 20usec Combination Wave	

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Technical Data (cont)

Parameter	Frequency MHz	Splitters								Directional Couplers						Line Power Inserter	
		2-way		3-way unbalanced				3-way balanced		DC-8		DC-12		DC-16			
		Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max
Insertion Loss – In/Out in dB: Typical/Maximum	5	4.1		4.2		8.0		6.5		2.3		1.7		1.5		1.0	
	10	3.9	4.3	4.0	4.3	7.8	8.2	6.3	7.0	2.0	2.6	1.4	1.8	1.2	1.6	0.6	0.9
	42	3.8	4.3	4.0	4.3	7.5	8.2	6.3	7.0	2.0	2.6	1.3	1.7	1.2	1.6	0.5	0.9
	54	3.8	4.3	4.0	4.3	7.5	8.2	6.3	7.0	2.0	2.6	1.3	1.7	1.2	1.6	0.5	0.9
	85	4.0	4.3	4.0	4.3	7.5	8.2	6.0	6.5	1.9	2.3	1.3	1.7	1.1	1.2	0.6	1.1
	108	4.0	4.3	4.0	4.3	7.5	8.2	6.0	6.5	1.9	2.3	1.3	1.7	1.1	1.2	0.6	1.1
	204	4.0	4.3	4.0	4.3	7.5	8.2	6.0	6.5	1.9	2.3	1.3	1.7	1.1	1.2	0.6	1.1
	258	4.0	4.3	4.0	4.3	7.5	8.2	6.0	6.5	1.9	2.3	1.3	1.7	1.1	1.2	0.6	1.1
	300	3.8	4.5	4.0	4.5	7.0	7.6	6.1	6.5	1.8	2.5	1.2	1.9	1.0	1.4	0.6	1.2
	396	3.8	4.5	4.0	4.5	7.0	7.6	6.1	6.5	1.8	2.5	1.2	1.9	1.0	1.4	0.6	1.2
	492	3.8	4.5	4.0	4.5	7.0	7.6	6.1	6.5	1.8	2.5	1.2	1.9	1.0	1.4	0.6	1.2
	684	4.3	4.6	4.2	4.6	7.2	7.7	6.3	7.0	2.1	2.7	1.4	2.1	1.0	1.4	0.4	1.3
	750	4.3	4.8	4.2	4.9	7.2	8.0	6.3	7.0	2.1	2.9	1.3	2.3	1.3	1.6	0.4	1.3
	870	4.2	4.8	4.3	5.0	7.4	8.0	6.6	7.3	2.1	3.1	1.3	2.5	1.2	2.0	0.7	1.3
	1002	4.4	5.3	4.6	5.6	7.8	8.5	7.2	8.0	2.4	3.3	1.6	2.8	1.4	2.5	0.8	1.5
	1218	4.9	5.5	5.1	5.9	8.2	9.3	7.8	8.5	2.9	3.8	2.1	3.2	1.7	3.0	1.1	1.9
	1410	4.9	5.5	5.1	5.9	8.2	9.3	7.8	8.5	2.9	3.8	2.1	3.2	1.7	3.0	1.1	1.9
	1602	5.3	5.8	5.4	6.0	9.4	9.8	8.0	9.5	3.4	3.8	2.6	3.2	2.0	3.0	1.0	2.0
	1800	6.2	6.5	5.4	6.5	10.0	10.8	9.0	10.0	3.7	4.5	3.2	3.5	2.9	3.2	1.4	2.2
Insertion Loss – In/Tap in dB: Typical/Maximum	5									8.6		11.6		15.6			
	10									8.4	9.5	11.3	13.0	15.3	17.0		
	42									8.4	9.5	11.3	13.0	15.3	17.0		
	54									8.4	9.5	11.3	13.0	15.3	17.0		
	85									8.4	9.5	11.3	13.0	15.3	17.0		
	108									8.4	9.5	11.3	13.0	15.3	17.0		
	204									8.4	9.5	11.3	13.0	15.3	17.0		
	258									8.4	9.5	11.3	13.0	15.3	17.0		
	300									8.4	9.5	11.3	13.0	15.3	17.0		
	396									8.4	9.5	11.3	13.0	15.3	17.0		
	492									8.4	9.5	11.3	13.0	15.3	17.0		
	684									8.4	9.5	11.3	13.0	15.3	17.0		
	750									8.4	9.5	11.3	13.0	15.3	17.0		
	870									8.4	9.5	11.3	13.0	15.3	17.0		
	1002									9.5	10.0	13.2	13.5	16.7	17.5		
	1218									9.5	10.0	13.2	13.5	16.7	17.5		
	1410									9.5	10.0	13.2	13.5	16.7	17.5		
	1602									9.5	10.0	13.2	13.5	16.7	17.5		
	1800									9.5	10.0	13.2	13.5	16.7	17.5		

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Splitters, DCs, LPIs

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Parameter	Frequency MHz	Splitters			Directional Couplers			Line Power Inserter
		2-way	3-way unbalanced	3-way balanced	DC-8	DC-12	DC-16	
Isolation – Out/Out in dB: Minimum	10 – 42	20	22	22	19	20	24	60
	42 – 860	24	23	24	24	25	28	60
	860 – 1218	22	22	22	22	22	26	52
	1218 – 1500	20	20	20	20	20	20	52
	1500 – 1800	20	20	20	20	20	20	52
Return Loss – all ports in dB: Minimum	10 – 65	14	12	12	14	14	14	14
	65 – 950	17	17	17	17	17	17	17
	950 – 1218	14	14	14	14	14	14	14
	1218 – 1500	14	14	14	14	14	14	14
	1500 – 1800	14	14	14	14	14	14	14
Hum Modulation in dBc: @ 15Amps - Maximum	5 – 10	52	52	52	52	52	52	55
	10 – 15	55	55	55	55	55	55	55
	15 – 1000	60	60	60	60	60	60	60
	1000 – 1800	55	55	55	55	55	55	55
RFI Shielding in dBc: Minimum	5 – 1000	-120	-120	-120	-120	-120	-120	-120
	1000 – 1800	-120	-120	-120	-120	-120	-120	-120

Ordering Information

Part Number	Description
PPC-LPCX8-SP2	Line Passive, 2-Way Splitter, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-SP3	Line Passive, 3-Way Splitter, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-SP3B	Line Passive, 3-Way Balanced Splitter, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-DC8	Line Passive, 8dB Directional Coupler, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-DC12	Line Passive, 12dB Directional Coupler, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-DC16	Line Passive, 16dB Directional Coupler, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-PI1	Line Passive, Power Inserter, Type “C”, 15Amp, 5 – 1800MHz
PPC-LPCX8-PI2	Line Passive, Power Inserter, Type “C”, 20Amp, 5 – 1800MHz

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These products may be protected by one or more patents. For further information, please visit: www.ppc-online.com/patents

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