

33 SERIES 1.8 GHz SPLITTERS & COUPLERS

[DC/DS33W-x] Cable Products, Mainline Splitters & Couplers

Features

- Supports DOCSIS 4.0 Expanded Bandwidth up to 1800 MHz
- 5-1800 MHz Frequency Range
- Aluminum Alloy Housing for Corrosion Resistance
- Double Polyurethane Coating for Greater Weather Protection
- Neoprene Weather Gasket and RFI Shielding at 120 dB
- 20 A Current Capacity for Power Inserter
- Aerial or Pedestal Installation
- Auto-seizure Mechanism for Aerial or Pedestal Installation
- Compliant with SCTE Guidelines



Application

Both a directional coupler (unequal power divider) and splitter (equal power divider) split your network's trunk and feederlines. A line power inserter enables a single cable to service the power and signal requirements of active modules in a broadband telecommunications network by passively combining radio frequency (RF) signals with up to 90 volts alternating current (VAC) from a line power supply.



Ordering Information

- DS33W- **x**
 | 2, 3, or 3B Splitter
- DC33W- **x**
 | 8, 12, or 16 dB Coupler, PI (Power Inserter)

Model Number	Standard Carton	Inner Box	Carton Weight	dB Values Available
DS33W-x	30 pcs	10 pcs	23 kgs / 50 lbs	2, 3, or 3B Splitter
DC33W-x	30 pcs	10 pcs	23 kgs / 50 lbs	8, 12, or 16 dB Coupler, -PI Power Inserter

Customization available upon request

General Specifications

Power Passing:	15 A, 60/90 VAC for Directional Splitters & Directional Couplers 20 A, 60/90 VAC for Power Inserter
Surge Withstand:	IEEE C62.41-1991 Category B3/6kV Combination Wave, 3000 A
Waterproof Condition:	1.2kg/cm ² 60 sec
Impedance:	75 Ohms
Connectors:	In/Out 5/8" -24 UNEF female

Mainline Splitters - 1.8 GHz**Insertion Loss (dB) Max**

	DS33W-2	DS33W-3B	DS33W-3	
5-10 MHz	7.3	6.5	5.1	10.5
10-15 MHz	4.3	6.5	4.1	8.0
15-65 MHz	4.1	6.3	4.1	7.4
65-300 MHz	4.3	6.3	4.3	7.5
300-550 MHz	4.5	6.5	4.5	7.6
550-750 MHz	4.6	7.0	4.6	7.7
750-860 MHz	4.8	7.2	4.9	8.0
860-1000 MHz	4.8	7.3	5.0	8.0
1000-1218 MHz	5.0	8.0	5.3	8.5
1218-1500 MHz	5.5	8.5	5.9	9.3
1500-1700 MHz	5.8	9.5	6.0	9.8
1700-1800 MHz	6.5	10.0	6.5	10.8

Output - Output Isolation (dB)

	DS33W-2	DS33W-3B	DS33W-3
5-10 MHz	19	22	22
10-65 MHz	22	22	22
65-860 MHz	24	24	24
860-1218 MHz	22	22	22
1218-1800 MHz	20	20	20

Return Loss - Input / Output (dB)

	DS33W-2	DS33W-3B	DS33W-3
5-10 MHz	6	15	15
10-15 MHz	12	15	15
15-300 MHz	17	17	17
300-1000 MHz	18	18	18
1000-1218 MHz	17	17	17
1218-1800 MHz	14	14	14

*5-10 MHz performance is given for reference only

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Insertion Loss (dB) Max

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	5.0	4.6	4.5	4.1
10-15 MHz	2.2	1.8	1.4	0.8
15-65 MHz	2.2	1.4	1.2	0.8
65-300 MHz	2.0	1.7	1.2	1.1
300-550 MHz	2.5	1.9	1.4	1.2
550-750 MHz	2.7	2.1	1.6	1.3
750-860 MHz	2.9	2.3	1.9	1.3
860-1000 MHz	3.1	2.5	2.0	1.3
1000-1218 MHz	3.3	2.7	2.5	1.5
1218-1500 MHz	3.5	3.2	3.0	1.9
1500-1700 MHz	3.8	3.2	3.0	2.0
1700-1800 MHz	4.5	3.5	3.0	2.2

Tap Value (dB) Tolerance: ± 3.0 for 5-10 MHz, ± 1.0 for 10-860 MHz, ± 1.5 for 860-1800 MHz

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-65 MHz	8	12	16	
65-1218 MHz	8	12	16	
1218-1700 MHz	8	12	16	
1700-1800 MHz	8.5	12	16	

Output - Tap Isolation (dB)

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	20	25	28	60
10-65 MHz	22	27	28	60
65-860 MHz	24	25	28	60
860-1218 MHz	22	22	26	52
1218-1500 MHz	20	20	20	52
1500-1800 MHz	20	20	20	52

Return Loss - Input / Output (dB)

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	6	15	15	12
10-15 MHz	15	15	15	12
15-300 MHz	17	17	17	17
300-1000 MHz	18	18	18	18
1000-1218 MHz	17	17	17	17
1218-1800 MHz	14	14	14	14

Hum Modulation @ 15 A (dB)

	DS33W-2	DS33W-3B	DS33W-3	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	≥ 52	≥ 52	≥ 52	≥ 52	≥ 52	≥ 52	≥ 52
10-15 MHz	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55
15-1000 MHz	≥ 60	≥ 60	≥ 60	≥ 60	≥ 60	≥ 60	≥ 60
1000-1800 MHz	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55	≥ 55

Screening Effectiveness (dB)

	DS33W-2	DS33W-3B	DS33W-3	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-1000 MHz	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95	≥ 95
1000-1800 MHz	≥ 85	≥ 85	≥ 85	≥ 85	≥ 85	≥ 85	≥ 85

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