

# 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
- Neoprene Weather Gasket and RFI Shielding at 120 dB
- Double Polyurethane Coating or Powder Coating for Greater Weather Protection
- 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 <sup>2</sup> 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	8.0	10.0	8.0	12.0
10-65 MHz	4.3	7.0	4.3	8.2
65-300 MHz	4.3	6.5	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	5.3	8.0	5.6	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	18	18	18
10-65 MHz	20	22	22
65-860 MHz	24	24	23
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	4	4	4
10-47 MHz	14	12	12
47-950 MHz	17	17	17
950-1218 MHz	14	14	14
1218-1800 MHz	14	14	14

\*5-10 MHz performance is given for reference only

© Copyright 2021 Taikan Company Inc. All rights reserved. This document is for information only. Features and specifications are subject to change without notice. v03182024



919 E. 29th St. Lawrence, KS USA 66046 // Phone: 785-841-5538 // sales@taikan.com // www.taikan.com

## Insertion Loss (dB) Max

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	6.0	5.0	5.0	3.5
10-65 MHz	2.6	1.7	1.6	0.9
65-300 MHz	2.3	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	2.8	2.5	1.5
1218-1500 MHz	3.8	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: 5-10 MHz $\pm 2.0$ dB , 10-1000 MHz $\pm 1.0$ dB , 1000-1800 MHz $\pm 1.5$ dB

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	13.0	15.0	19.0	
10-65 MHz	8.0	12.0	16.0	
65-1218 MHz	8.0	12.0	16.0	
1218-1700 MHz	8.0	12.0	16.0	
1700-1800 MHz	8.5	12.0	16.0	

## Output - Tap Isolation (dB)

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	18	18	22	60
10-65 MHz	24	20	24	60
65-860 MHz	22	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 / Tap (dB)

	DC33W-8	DC33W-12	DC33W-16	DC33W-PI
5-10 MHz	4	4	4	4
10-47 MHz	14	14	14	14
47-950 MHz	17	17	17	17
950-1218 MHz	14	14	14	14
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	$\geq 52$	$\geq 52$	$\geq 52$	$\geq 52$	$\geq 52$	$\geq 52$	$\geq 52$
10-15 MHz	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$
15-1000 MHz	$\geq 60$	$\geq 60$	$\geq 60$	$\geq 60$	$\geq 60$	$\geq 60$	$\geq 60$
1000-1800 MHz	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$	$\geq 55$

## Screening Effectiveness (dB)

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

\*5-10 MHz performance is given for reference only

© Copyright 2021 Taikan Company Inc. All rights reserved. This document is for information only. Features and specifications are subject to change without notice. v03182024



919 E. 29th St. Lawrence, KS USA 66046 // Phone: 785-841-5538 // sales@taikan.com // www.taikan.com