

## Multimedia Stretch Tap™ Tap Directional Coupler with Reverse Window

### Description

Scientific-Atlanta's Multimedia Stretch Tap™ Directional Coupler with Reverse Window (DC/RW) enables more flexible deployment of reverse services in a hybrid fiber/coax transmission system. The DC/RW is a by-product of the extensive reverse path studies Scientific-Atlanta has conducted. This 5 – 1000 MHz broadband Directional Coupler adds cable simulation attenuation to the forward path tap ports while providing a fixed "Reverse Window" of attenuation in the reverse path.



Scientific-Atlanta's new Directional Coupler with Reverse Window product has been designed for use with high output level nodes. The DC/RW provides high values of attenuation (and the addition of cable simulated slope) to the forward path. This prevents excessive signal from reaching the homes connected to the first few taps after the node. The lower attenuation in the reverse band allows the reverse signals to pass through the tap, yet maintain the higher signal level desired at the node. Maintaining the high reverse signal level improves the signal to noise ratio and decreases the dynamic range variance of the reverse signals at the node thus simplifying the deployment of new services. The high forward attenuation allows full use of the additional signal available from the high output nodes. The addition of cable simulated slope between the low and high ends of the frequency band, compensates for the inverse cable slope present at the output of the node.

This DC/RW product comes in three attenuation values as referenced to 1 GHz: 26 dB, 29 dB, and 32 dB. All three forward attenuation values have a single fixed "Reverse Window" of attenuation of 23 dB at 5 MHz. The loss shape between 5 MHz and 1 GHz follows that of cable slope. These new plug-in devices are fully compatible with all Scientific Atlanta's Multimedia Stretch Tap faceplates.

### Features

- 3 cable slope values available
- Plugs into all Scientific-Atlanta's Stretch Tap products
- Unique labeling to distinguish Directional Coupler with Reverse Window (DC/RW) from standard directional coupler (DC) and equalized directional coupler (DC/EQ)
- Additional labels provided in packaging to mark the outside of tap containing a DC/RW module



# Multimedia Stretch™ Tap Directional Coupler with Reverse Window

## Specifications

	Freq.	2-Way						4-Way						8-Way					
		26 dB		29 dB		32 dB		26 dB		29 dB		32 dB		26 dB		29 dB		32 dB	
	MHz	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max	Mean	Max
<b>Insertion Loss (dB)</b>	5	1.0	1.3	1.0	1.3	1.0	1.3	1.0	1.3	1.0	1.3	1.0	1.3	1.1	1.4	1.1	1.4	1.1	1.4
	40	0.7	1.0	0.7	1.0	0.7	1.0	0.7	0.8	0.7	0.8	0.7	0.8	0.8	1.1	0.8	1.1	0.8	1.1
	50	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.7	0.8	0.8	1.1	0.8	1.1	0.8	1.1
	450	1.3	1.6	1.3	1.6	1.3	1.6	1.3	1.6	1.3	1.6	1.3	1.6	1.5	1.8	1.5	1.8	1.5	1.8
	550	1.3	1.7	1.3	1.7	1.3	1.7	1.4	1.7	1.4	1.7	1.4	1.7	1.6	2.1	1.6	2.1	1.6	2.1
	750	1.4	1.9	1.4	1.9	1.4	1.9	1.4	1.9	1.4	1.9	1.4	1.9	1.7	2.3	1.7	2.3	1.7	2.3
	870	1.5	2.1	1.6	2.1	1.6	2.1	1.6	2.1	1.6	2.1	1.6	2.1	1.9	2.4	1.9	2.4	1.9	2.4
	1000	1.5	2.3	1.6	2.3	1.6	2.3	1.6	2.1	1.6	2.1	1.6	2.1	2.1	2.6	2.1	2.6	2.1	2.6
<b>Tap Loss (dB)</b>	5	23.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0	
	10	23.0		23.1		23.2		23.0		23.1		23.2		23.0		23.1		23.2	
<b>Max Tolerance +/- 1 dB</b>	50	23.6		24.1		24.5		23.6		24.1		24.5		23.6		24.1		24.5	
	100	23.9		24.6		25.1		23.9		24.6		25.1		23.9		24.6		25.1	
	300	24.5		26.0		27.3		24.5		26.0		27.3		24.5		26.0		27.3	
	400	24.8		26.6		28.1		24.8		26.6		28.1		24.8		26.6		28.1	
	500	25.1		27.0		28.8		25.0		27.0		28.8		25.0		27.0		28.8	
	600	25.3		27.5		29.5		25.3		27.5		29.5		25.3		27.5		29.4	
	750	25.5		28.1		30.5		25.5		28.1		30.5		25.5		28.1		30.5	
	870	25.7		28.5		31.2		25.7		28.5		31.2		25.7		28.5		31.2	
	1000	26.0		29.0		32.0		26.0		29.0		32.0		26.0		29.0		32.0	

### Note:

Unless otherwise noted, specifications are based on measurements made in accordance with NCTA Practices for Measurements on Cable Television Systems using standard frequency assignments and are referenced to 68°F (20°C). All ports are terminated.

Model	Part Number	Description
DC 2 W 23/26	734120	Directional Coupler for 2-way 23 dB R/26 dB F
DC 2W 23/29	734121	Directional Coupler for 2-way 23 dB R/29 dB F
DC 2W 23/32	734122	Directional Coupler for 2-way 23 dB R/32 dB F
DC 4W 23/26	734123	Directional Coupler for 4-way 23 dB R/26 dB F
DC 4W 23/29	734124	Directional Coupler for 4-way 23 dB R/29 dB F
DC 4W 23/32	734125	Directional Coupler for 4-way 23 dB R/32 dB F
DC 8W 23/26	734126	Directional Coupler for 8-way 23 dB R/26 dB F
DC 8W 23/29	734127	Directional Coupler for 8-way 23 dB R/29 dB F
DC 8W 23/32	734128	Directional Coupler for 8-way 23 dB R/32 dB F

## Ordering Information

Tap Loss Value	2 Way	4 Way	8 Way
26 dB	734120	734123	734126
29 dB	734121	734124	734127
32 dB	734122	734125	734128



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