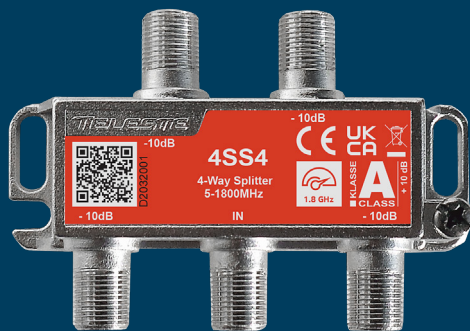


DOCSIS 4.0
READY



Indoor RF passives

SPLITTERS AND TAPS 4-LINE

The 4-Line consists of splitters and taps that are DOCSIS® 4.0-compliant with frequency range up to 1800 MHz. Thanks to the superior housing design, the products are fast and easy to install.

4-Line features

- Frequency range up to 1.8 GHz, Docsis 4.0 compliant
- Electromagnetic compatibility exceeding Class A+ (= Class A +10dB)
- Very good intermodulation performance
- Superior housing design ensures fast and easy installation



TELESTE

INDOOR RF PASSIVES / 4-LINE

ELECTRICAL SPECIFICATIONS - SPLITTERS							
Frequency range (MHz)	2-way	3-way	3-way unbalanced	4-way	6-way	8-way	
	4SS2	4SS3	4SS3U	4SS4	4SV6	4SV8	
	4SE2		4SE3U	4SE4			
Port loss (dB, Max.) - In to Port							
5 - 15	4.2	6.6	4.2/7.5	7.5	9.8	10.8	
15 - 65	3.7	6.5	3.7/7.0	7.3	9.3	10.5	
65 - 470	3.8	6.5	3.7/7.0	7.3	9.3	10.8	
470 - 862	4.0	6.8	4.0/7.5	7.5	10.0	11.2	
862 - 1006	4.1	6.8	4.2/8.0	8.0	10.5	11.8	
1006 - 1218	4.3	7.0	4.5/8.5	8.5	11.5	12.2	
1218 - 1500	4.8	7.8	4.8/9.5	10.0	12.5	14.0	
1500 - 1800	5.4	8.5	5.0/11.0	11.8	13.8	16.2	
Return loss (dB, Min.) - All ports							
5 - 15	20.0	20.0	20.0	20.0	20.0	20.0	
15 - 1218	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	
1218 - 1800	14.0	14.0	14.0	14.0	14.0	14.0	
Isolation (dB, Min.) - Out to Out							
5 - 15	28.0	25.0	28.0	25.0	25.0	25.0	
15 - 65	30.0	32.0	32.0	35.0	32.0	32.0	
65 - 470	28.0	28.0	28.0	30.0	28.0	28.0	
470 - 862	26.0	26.0	26.0	28.0	26.0	25.0	
862 - 1002	25.0	24.0	25.0	26.0	25.0	24.0	
1002 - 1218	22.0	22.0	22.0	25.0	22.0	22.0	
1218 - 1500	20.0	22.0	20.0	22.0	20.0	21.0	
1500 - 1800	20.0	20.0	20.0	20.0	20.0	20.0	
ELECTRICAL SPECIFICATIONS - 1-WAY TAPS							
Frequency range (MHz)	6 dB	8 dB	10 dB	12 dB	16 dB	20 dB	24 dB
	4TS106	4TS108	4TS110	4TS112	4TS116	4TS120	4TS124
	4TE106	4TE108	4TE110	4TE112	4TE116	4TE120	4TE124
Insertion loss (dB, Max.) - In to Out							
5 - 15	3.0	2.6	1.8	1.7	1.6	1.6	1.6
15 - 65	2.5	2.0	1.8	1.5	1.0	1.0	1.0
65 - 470	2.5	2.1	1.8	1.5	1.0	1.0	1.0
470 - 862	2.8	2.4	2.0	1.7	1.2	1.2	1.2
862 - 1006	2.9	2.4	1.8	1.5	1.2	1.2	1.2
1006 - 1218	3.2	2.5	2.2	2.0	1.5	1.3	1.3
1218 - 1500	3.6	2.8	2.5	2.3	1.8	1.6	1.6
1500 - 1800	4.5	3.2	2.9	2.6	2.2	1.9	1.9
Tap loss (dB, Min.) - In to Tap							
5 - 65	6.5 ± 1.5	8.5 ± 1.5	10.5 ± 1.5	12.5 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	24.0 ± 1.5
65 - 1006	6.5 ± 1.0	8.5 ± 1.0	10.5 ± 1.0	12.5 ± 1.0	16.0 ± 1.0	20.0 ± 1.0	24.0 ± 1.0
1006 - 1218	6.5 ± 1.5	8.5 ± 1.5	10.5 ± 1.5	12.5 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	24.0 ± 1.5
1218 - 1500	6.5 ± 1.5	8.5 ± 1.5	10.5 ± 1.5	12.5 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	24.0 ± 1.5
1500 - 1800	6.5 ± 1.5	8.5 ± 1.5	10.5 ± 1.5	12.5 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	24.0 ± 1.5
Return loss (dB, Min.) - All ports							
5 - 15	20.0	20.0	20.0	20.0	20.0	20.0	20.0
15 - 1218	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾
1218 - 1800	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Isolation (dB, Min.) - Out to Tap							
5 - 15	20.0	22.0	23.0	25.0	30.0	32.0	35.0
15 - 65	25.0	28.0	28.0	30.0	35.0	38.0	42.0
65 - 470	23.0	25.0	25.0	30.0	32.0	35.0	38.0
470 - 862	22.0	24.0	24.0	28.0	32.0	35.0	36.0
862 - 1006	20.0	22.0	25.0	25.0	30.0	32.0	35.0
1006 - 1218	20.0	22.0	22.0	25.0	28.0	28.0	30.0
1218 - 1500	20.0	22.0	22.0	22.0	26.0	26.0	28.0
1500 - 1800	18.0	20.0	20.0	20.0	24.0	24.0	25.0

INDOOR RF PASSIVES / 4-LINE

ELECTRICAL SPECIFICATIONS - 2/8-WAY TAPS						
Frequency range (MHz)	8 dB 4TS208 4TE208	10 dB 4TS210	12 dB 4TS212 4TE212	16 dB 4TS216 4TE216	20 dB 4TS220 4TE220	22 dB 4TV822
Insertion loss (dB, Max.) - In to Out						
5 - 15	4.4	3.5	2.9	2.9	2.9	1.9
15 - 65	4.0	2.8	2.4	2.4	2.4	1.6
65 - 470	4.2	3.0	2.4	2.2	2.2	1.6
470 - 862	4.2	3.4	2.4	2.2	2.2	1.8
862 - 1006	4.4	3.6	2.4	2.2	2.2	2.0
1006 - 1218	4.6	4.0	2.6	2.4	2.2	2.4
1218 - 1500	5.0	4.4	3.2	2.7	2.7	2.8
1500 - 1800	5.4	5.2	3.8	3.2	3.2	3.2
Tap loss (dB, Min.) - In to Tap						
5 - 65	8.5 ± 1.5	10.0 ± 1.5	12.0 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	22.5 ± 1.0
65 - 1006	8.5 ± 1.0	10.3 ± 1.0	12.0 ± 1.0	16.0 ± 1.0	20.0 ± 1.0	22.5 ± 1.0
1006 - 1218	8.5 ± 1.5	10.0 ± 1.5	12.0 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	22.5 ± 1.5
1218 - 1500	8.5 ± 1.5	10.0 ± 1.5	12.0 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	22.5 ± 2.0
1500 - 1800	8.5 ± 1.5	10.0 ± 1.5	12.0 ± 1.5	16.0 ± 1.5	20.0 ± 1.5	22.5 ± 2.5
Return loss (dB, Min.) - All ports						
5 - 15	20.0	20.0	20.0	20.0	20.0	20.0
15 - 1218	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾	22.0 ⁽¹⁾
1218 - 1800	14.0	14.0	14.0	14.0	14.0	14.0
Isolation (dB, Min.) - Out to Tap						
5 - 15	25.0	22.0	26.0	26.0	30.0	32.0
15 - 65	27.0	28.0	30.0	34.0	36.0	35.0
65 - 470	25.0	26.0	30.0	32.0	36.0	34.0
470 - 862	24.0	24.0	28.0	30.0	32.0	32.0
862 - 1006	22.0	22.0	26.0	28.0	30.0	30.0
1006 - 1218	22.0	22.0	24.0	26.0	28.0	28.0
1218 - 1500	20.0	20.0	22.0	24.0	28.0	26.0
1500 - 1800	20.0	20.0	20.0	24.0	28.0	24.0
Isolation (dB, Min.) - Tap to Tap						
5 - 15	32.0	28.0	36.0	38.0	42.0	24.0
15 - 65	38.0	36.0	40.0	45.0	50.0	32.0
65 - 470	32.0	35.0	36.0	40.0	45.0	28.0
470 - 862	30.0	32.0	34.0	36.0	38.0	23.0
862 - 1006	28.0	30.0	32.0	34.0	36.0	22.0
1006 - 1218	28.0	30.0	30.0	32.0	34.0	22.0
1218 - 1500	25.0	28.0	28.0	30.0	34.0	20.0
1500 - 1800	22.0	25.0	26.0	30.0	32.0	20.0

INDOOR RF PASSIVES / 4-LINE

GENERAL SPECIFICATIONS			
Frequency range	5 - 1800 MHz	Impedance	75 Ohm
Operating temperature range	-25...+70 °C	Electromagnetic comp. ⁽²⁾ (dB, Min.) 5 - 300 300 - 470 470 - 950 950 - 1800	95.0 90.0 85.0 75.0
Surge immunity ⁽³⁾	1 kV	Intermodulation ⁽⁴⁾ (2f1, f1+f2, 2f2)	-122.0 dBc ^(a) -115.0 dBc ^(b) -110.0 dBc ^(c)
Weight 2-way splitter & 1-way taps 3-/4-way splitters & 2-way taps 6-way splitter 8-way tap/splitter	0.043 kg 0.060 kg 0.120 kg 0.140 kg	Dimensions 2-way splitter & 1-way taps 3-/4-way splitters & 2-way taps 6-/8-way tap/splitters	58 x 51 x 19 mm 78 x 51 x 19 mm 126 x 45.5 x 19 mm
MECHANICAL SPECIFICATIONS			
Housing	Zinc die cast, NiSn plating	Back cover	Construction: machine soldered Material: Brass, Nickel plating
F-spring	Material: Beryllium Copper Plating: Silver	Connectors	Material: Zinc die cast Plating: NiSn Port spacing: 22mm Protection cap: yes Acc. IEC61169-24 Standard Additional Compliance ≥115 gram @ 0.7 mm test-pin after 1.2 mm test-pin insertion
Grouding block	Yes	Protection	IP67, IEC60529:1989
Salt mist cyclic test	672 Hrs Number of Cycles: 4 Severity: 5 IEC60068-2-52:1996	Vibration	Frequency range: 10-55 Hz Sweep rate: 1 oct./p/m, Sweep cycles: 10 Displacement ampl.: 0.75mm Axis: 3 IEC60068-2-6:1995
NOTES			
(1) At F ≥ 40 MHz -1.5 dB/oct. (2) EMC exceeding Class A+ (= Class A +10 dB), according to IEC60728-2 (3) 1 kV, 1.2/50µs Surge voltage according to IEC61000-4-5, EMC (class 2, level2) applied between the inner and outer conductor of each port (4) Two carriers (60 & 65 MHz), applied to each output port, @ 120 dBµV a. No surge b. Measured after 10 pulses 25 VDC (1.2/500 µS) have been applied to each port c. Measured after 1kV (1.2/50µS) pulses have been applied to each port Additional notes: * Between 5 and 10 MHz, the above specifications are typical values and not min. or max. values * CableLabs is owner of the trademark DOCSIS®			
ORDERING INFORMATION			
4SS2	2-way Splitter	4TS116	1-way Tap 16dB
4SE2	2-way splitter European style	4TE116	1-way Tap 16 dB European style
4SS3	3-way Splitter	4TS120	1-way Tap 20dB
4SS3U	3-way Splitter unbalanced	4TE120	1-way Tap 20dB European style
4SE3U	3-way Splitter unbalanced European style	4TS124	1-way Tap 24dB
4SS4	4-way Splitter	4TE124	1-way Tap 24dB European style
4SE4	4-way splitter European style	4TS208	2-way Tap 8dB
4SV6	6-way Splitter	4TE208	2-way Tap 8dB European style
4SV8	8-way Splitter	4TS210	2-way Tap 10dB
4TS106	1-way Tap 6dB	4TS212	2-way Tap 12dB
4TE106	1-way Tap 6dB European style	4TE212	2-way Tap 12dB European style
4TS108	1-way Tap 8dB	4TS216	2-way Tap 16dB
4TE108	1-way Tap 8dB European style	4TE216	2-way Tap 16dB European style
4TS110	1-way Tap 10dB	4TS220	2-way Tap 20dB
4TE110	1-way Tap 10dB European style	4TE220	2-way Tap 20dB European style
4TS112	1-way Tap 12dB	4TV822	8-way Tap 22dB
4TE112	1-way Tap 12dB European style		

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