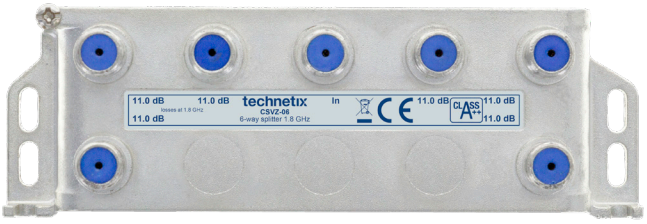
1.8 GHz core series vertical splitter

- **High-quality installation splitter**
- **Modem Safe® surge protection**
- **CPD Safe™ corrosion protection**
- **Compact, white-bronze plated housing**



Overview

The Core series is our next generation of installation passives which excel in both electrical and mechanical performance. Though designed for indoor use, they are also specified for use in street-side plant. The products are easy to install with a compact housing, specifically sized to make replacement and upgrade installation simple.

Intermodulation performance, which is an important factor in high-level return path signals, has been greatly improved through a newly developed ferrites and specially designed circuits. The intermodulation performance remains very high even after being exposed to electrical surges from the network on all ports.

The screening effectiveness meets the Class A++ requirements defined in EN 50083-2:2012 across the whole frequency range from 12 to 1825 MHz. To provide maximum protection against interference from 4G/5G signals.

Technetix Modem Safe®

Technetix Modem Safe® is a highly effective surge protection solution for sensitive network and in-home CPE. This technology is based on passive circuits and is not reliant on discharge tubes, therefore extending the lifespan of the solution.

- Blocks high and low voltage pulses and unwanted DC voltages
- Prevents internal ferrites within the product from becoming magnetized (avoiding deterioration in the performance of CPE)
- Drives fewer reported faults, improving customer service and reducing truck rolls

Technetix CPD Safe™

Common Path Distortion (CPD) is well known for producing signal interference in the network. It is caused by electrolytic corrosion or the oxidization of dissimilar metals when in close contact. Technetix CPD Safe™ technology protects against CPD.

- Removes a primary cause of CPD
- Reduces signal interference in the network
- Drives fewer reported faults, improving customer service and reducing truck rolls

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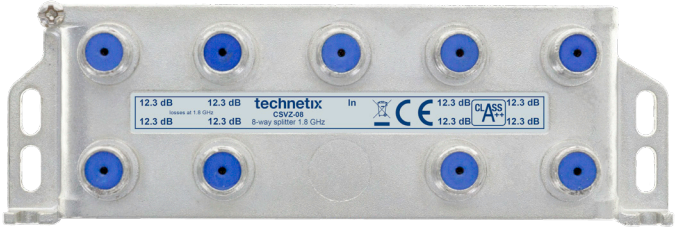

1.8 GHz vertical splitters device and performance specifications

Vertical splitters 6 and 8-way

Parameter		CSVZ-06	CSVZ-08	Tolerance +/- Max. dB	Notes
		Typ.			
Insertion loss IN-OUT (dB)	12 MHz	8.8	10.5	0.5	4
	200 MHz	8.6	10.3	0.5	4
	450 MHz	8.6	10.5	0.5	4
	860 MHz	9.1	10.9	0.5	4
	1006 MHz	9.2	11.0	0.5	4
	1218 MHz	9.5	11.5	0.8	4
	1825 MHz	11.1	12.1	1.0	4
		Min.			
Return loss All ports (dB)	12 MHz	16.0	16.0		4
	47 MHz	20.0	20.0		4
	100 MHz	20.0	20.0		4
	200 MHz	19.0	19.0		4
	450 MHz	18.0	18.0		4
	860 MHz	17.0	17.0		4
	1825 MHz	15.0	15.0		4
Isolation TAP-TAP (dB)	12 MHz	30.0	30.0		4
	200 MHz	27.0	27.0		4
	450 MHz	26.0	26.0		4
	860 MHz	25.0	25.0		4
	1006 MHz	24.0	24.0		4
	1218 MHz	23.0	23.0		4
	1825 MHz	22.0	22.0		4

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General

Parameter		Specification			Units	Notes
		Min.	Typ.	Max.		
Frequency range	All ports	12		1218	MHz	
Temperature range	Operating	-15°C to +45°C (+5°F to +113°F)			°C/°F	5
	Storage	-40°C to +60°C (-40°F to +140°F)			°C/°F	
Impedance			75		Ω	
Surge withstand	All ports	1			kV	2, 6
Intermodulation	All ports	25 V		115	dBc	1
		1 kV		115	dBc	1
Screening effectiveness	12-30 MHz			2.5	mΩ/m	3
	30-1000 MHz	105			dBc	3
	1000-2000 MHz	95			dBc	3

Mechanical

Parameter		Specification
Connectors	All ports	F-female
Materials	Body	Diecast zinc alloy, white-bronze plated
	Lid	Mild steel, >0.8 µm tin plated
	F-spring	Beryllium copper, silver plated
	Grounding block	Will accommodate two 2.5 mm^2 conductors
Dimensions (H x W x D)		1.6”H x 4.7”W x 1.3”D (4.1H x 12.9W x 3.4D cm)
Equipment approval		CE

Environmental

Parameter	Standard	Severity
Degree of protection provided by the enclosure	BS EN 60529:1992	IP68, 1-meter immersion 1-week duration with all ports terminated.
Salt fog	BS EN 60068-2-52:2018 [test Kb] Salt mist cyclic	Test method 4 (14 days)
Drop	BS EN 60068-2-31:2008 [tests Ec] Rough handling shocks	The unpackaged device under test (DUT) must be able to withstand a 1000 mm drop from 2 planes (top & bottom) using a drop tester. Device shall survive and continue to operate.
Temperature cycle	BS EN 60068-2-14:2000 [test N] Change of temperature	6 cycles of: 3 hrs at the low limit 5°C (+41°F), 1 hr transition to high limit +40°C (+104°F) at 95% RH, wait 3 hrs then 1 hr transition to low limit. The device shall continue to operate during and after test.
Damp heat cyclic	BS EN 60068-2-30:2005 [test Db] Damp heat cyclic (12 hr + 12 hr)	+55°C (+131°F), 6 cycles, 95% RH
Dry heat	BS EN 60068-2-2:2007 [test B] Dry heat	+85°C (+185°F), 72 hrs
Vibration	BN EN 60068-2-6:2008 [test Fc] Vibration [sinusoidal]	The sample shall be subjected to a constant displacement amplitude test with an amplitude of 0.15 mm or 20 m/s2, the frequency varying exponentially with time from 10 Hz and 150 Hz and back. One cycle taking 5 mins. Test duration 10 cycles in each of the 3 axis.

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Notes

1	Two carriers (60 & 65 MHz), OUT to OUT, @ 120 dBµV, after 10 pulses (25 V/1.2 µS rise time / 500 µS duration) at all ports. Two carriers (60 & 65 MHz), OUT to OUT, @ 120 dBµV, after one positive and one negative pulse (1 kV/1.2 µS rise time / 50 µS fall time) at all ports. Two carriers (60 & 65 MHz), OUT to OUT, @ 120 dBµV, before and after activation of a 50 kg force magnet over any port.
2	Surge pulse 1 kV/1.2 µS rise time / 50 µS fall time (IEC61000-4-5:1995) 2 Ω source impedance (one positive and one negative).
3	IEC 62153-7, IEC 60728-2 and EN-50083 (transfer impedance method, absorbing clamp).
4	Point-to-point linear limit line.
5	@47 MHz - 1.5 dB per octave not exceeding 18 dB.
6	0.5 dB degradation in insertion loss and 2 dB degradation in return loss and isolation permissible.

Order information

Item code	Legacy code	Description
19015354	**CSVZ-06**	Core 6-way vertical splitter 1.8 GHz
19015355	**CSVZ-08**	Core 8-way vertical splitter 1.8 GHz

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