

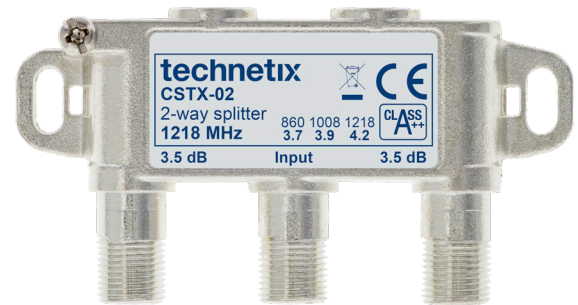
Installation taps and splitters

2-way 1.2 GHz Core series topless splitter

technetix



- 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 due to their IP68 rating. The products are easy to install with a compact housing, specifically sized to make replacement and upgrade installation simple.

All F-connector contacts meet BS EN IEC 61169-24:2019 standards. The inner spring has been designed to accommodate a wide range of coax cables with an inner core of 0.64 to 1.30mm. It retains its elasticity and provides superior clamping forces, even when varying thicknesses of inner conductor are connected in succession.

Intermodulation performance, which is an important factor in high-level return path signals, has been greatly improved through a newly developed ferrite and specially designed circuits.

The screening effectiveness meets the Class A++ requirements defined in BS EN 50083-2:2012 across the whole frequency range from 12 to 1218 MHz.

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 magnetised (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 oxidation 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

Electrical specifications

| Characteristic | Port type | MHz | Min | Typ | Max | Unit | Notes |
|----------------|-----------|-----------|------|-----|-----|------|-------|
| Insertion loss | In - Outs | 12 - 550 | | | 3.7 | dB | |
| | | 550 | | | 3.7 | dB | 4 |
| | | 1218 | | | 4.4 | dB | 4 |
| Return loss | All ports | 12 - 1218 | 20.0 | | | dB | |
| Isolation | Out - Out | 12 - 47 | 30.0 | | | dB | |
| | | 47 - 550 | 32.0 | | | dB | |
| | | 550 | 32.0 | | | dB | 4 |
| | | 1218 | 22.0 | | | dB | 4 |

General specifications

| Characteristic | Port type | Min | Typ | Max | Units | Notes |
|-------------------------|-----------------|-----|-----|------|-------|-------|
| Frequency range | All ports | 12 | | 1218 | MHz | |
| Temperature range | Operating | -15 | | +45 | °C | 5 |
| | Storage | -40 | | +60 | °C | |
| | Specification | +20 | | +25 | °C | |
| Impedance | RF I/P | | 75 | | Ω | |
| | RF O/P 1,2 | | 75 | | Ω | |
| Surge withstand | All ports | 1 | | | kV | 2,5 |
| Intermodulation | All ports | 25V | | 115 | dBc | 1 |
| | | 1kV | | 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 specifications

| Description | Port type | Details |
|--------------------|-----------------|--|
| Connectors | All ports | F-female |
| Materials | Body | Die-cast zinc alloy, white-bronze plated |
| | Lid | Mild steel, >0.8 μm tin plated |
| | F-spring | Beryllium copper, silver plated |
| | Grounding block | Will accommodate two 2.5mm ² conductors |
| Dimensions | L x H x D | 76.7mm x 40.0mm x 16.0mm |
| Equipment approval | | CE |

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Environmental specifications

| Condition | 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 1000mm drop from 2 planes (top & bottom) using a drop tester. Device shall survive and continue to operate ¹ |
| Temperature cycle | BS EN 60068-2-14:2000 [test N] Change of temperature | 6 cycles of: 3 hrs at the low limit 5°C, 1hr transition to high limit +40°C 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 (12hr + 12hr) | 55°C, 6 cycles, 9 5% RH |
| Dry heat | BS EN 60068-2-2:2007 [test B] Dry heat | 85°C, 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 0.15mm or 20 m/s ² , 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. |

Note¹ 0.5dB degradation in insertion loss and 3 dB degradation in return loss and isolation permissible.

Notes

| | |
|---|---|
| 1 | Two carriers (60 & 65 MHz), out to out, @ 120 dBμV, after 10 pulses (25V/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 (1kV/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 50Kg force magnet over any port. |
| 2 | Surge pulse 1kV/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 | Linear point-to-point limit line |
| 5 | 0.5 dB degradation in insertion loss and 2 dB degradation in return loss and isolation permissible |

Order information

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| 19012816 | CSTX-02 |
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