Regal®

2-Way Digital Drop Splitter System

Features

- Nickel plated zinc housing with tongue and groove epoxy sealed back
- 1 GHz bandwidth with low loss characteristics
- ½" flat F-ports
- Printed wiring board
- Includes 1kV blocking capacitors
- Integrated mounting tabs at back of housing
- Port values cast into housing
- Standard 1" spacing between F-port
- Integral heavy duty ground block
- Conical center conductor seizure mechanism

Application

Why REGAL® 1 GHz Digital Drop Splitters?

Regal Digital Splitters are offered in two housing options: Nickel-plated Zinc and Chromate-treated Zinc. Performance specifications are the same for both models with the exception of corrosion resistance and EMI isolation as explained below.

Nickel-plated Zinc

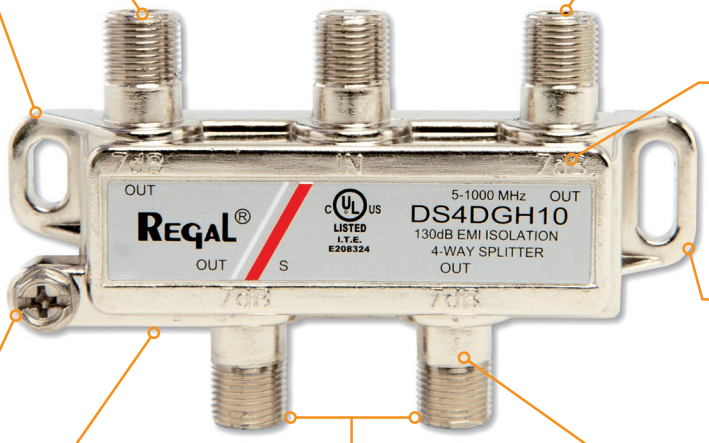
The premium offering for customers seeking optimal performance from their drop splitters, this option provides superior corrosion resistance and exceptional 120 dB minimum EMI isolation.

Chromate-Treated Zinc

The best choice for budget-constrained or cost conscious customers who still desire digital performance specifications. This option provides good corrosion resistance and 120 dB minimum EMI isolation, plus all of the other performance specifications of the tin-plated digital splitter, for about 15% less.

Intermodulation

Intermodulation occurs when the ferrite core of a passive device becomes saturated and cannot handle additional RF energy. Saturation can occur in a ferrite core that has acquired a residual magnetism due to transient voltages or direct electrical surges, thereby becoming a non-linear device. Once the ferrite core is magnetized and then saturated with RF energy, it then begins to generate spurious signals and harmonics. This becomes especially apparent when a cable modem is in use. The high output level (up to 55 dBmV) of the upstream signal will create harmonics that appear as distortions in picture quality on channels in the downstream CATV signal.



1 KV Blocking Capacitors on Each F-port to prevent ferrite core magnetization and saturation

Nickel-platted[1] Zinc Housing with Tongue and Groove Epoxy Sealed Back Plate provides superior corrosion resistance with exceptional CLI protection and EMI isolation (EMI: nickel-plated minimum 120 dB, chromate treated zinc minimum 120 dB)

Integrated Heavy Duty Ground Block provides grounding without additional connections or material

Printed Wiring Board Screwed in Place ensures consistent RF performance and high port isolation

1 GHz Bandwidth with Low Loss characteristic supports present and future multimedia, telephony and digital applications

1" Spacing Between F-ports provides ample space for installation of traps and other devices

Flat F-ports and Conical Center Conductor Seizure increases metal to metal contact to enhance electrical performance

Port Values are Cast into the Housing ensuring life-long easy identification

Integrated Mounting Tabs flush with back of housing to provide easy mounting without tabs breaking

½" Flat F-ports with Shoulder for Sealing Sleeve to improve electrical and mechanical contact and enhance weather resistance

Note 1: Nickel-platted refers to digital series splitters only. Used in high corrosive areas.

Benefits

- Provides superior corrosion resistance, exceptional CLI protection and EMI isolation – minimum 120 dB and durable construction
- Supports present and future multimedia, telephony, RF and digital communications
- Improves electrical and mechanical contact and provides more secure weather resistant connection
- Ensures consistent RF performance and high port isolation
- Prevents ferrite core saturation and magnetization
- Flush with back of housing to provide easy mounting without tabs breaking
- Allows ports to be easily identified for the life of the splitter
- Provides ample space for installation for RG-11, traps, etc.
- Facilitates proper grounding without additional connections and material
- Improves return loss and isolation specifications

Performance Benefits

- Combat intermodulation and spurious signals
- Increase return loss and isolation performance within the return path
- Greater surge protection
- Reduced insertion loss
- UL® compliance

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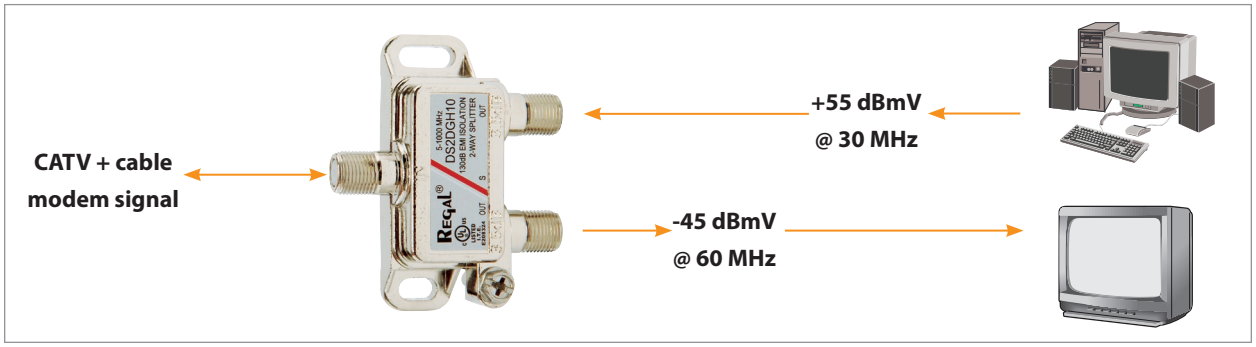
Regal Digital Intermodulation Specifications

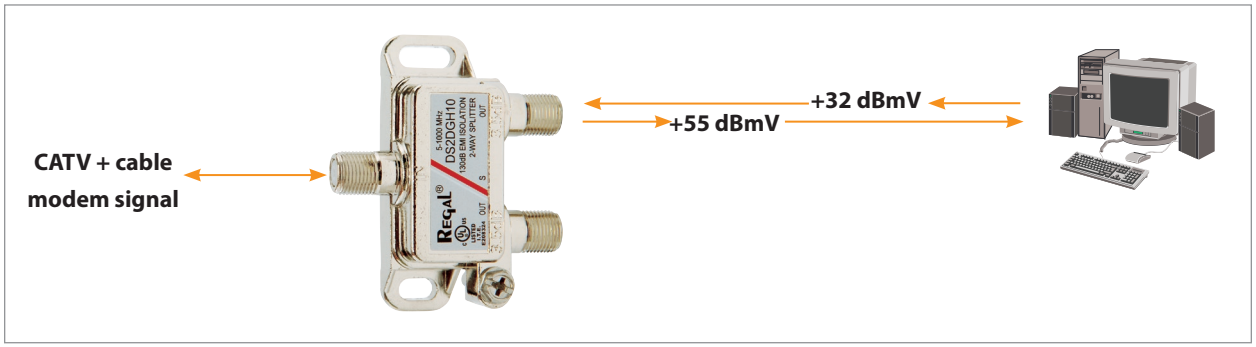
Spurious Signals/2nd Harmonics — -45 dBmV with +55 dBmV input after five 6kV A3 surges on each port



Without Regal Digital Splitters, spurious signals will overdrive the TV tuner resulting in snowy pictures when the cable modem is transmitting

Regal Digital Output Return Loss Specifications

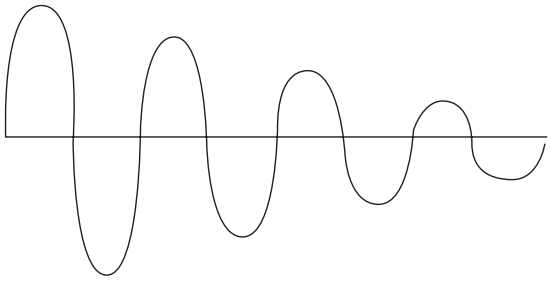
Output Return Loss — 23 dBmV @ 15 to 40 MHz



Without Regal Digital Splitters, reflected signals will cause errors in the digital information being transmitted to and from the cable modem

Regal Digital Surge Protection Specifications

Surge Protection — Capable of withstanding a 6kV ring wave surge in accordance with IEEE 587; (C62.41 - 1991) Category A3 standard; (6kV, 200 A, 100 kHz ring wave)



A surge that will rise to some positive voltage, fall back to zero, rise to some slightly less negative voltage, fall to zero, and continue this process, slowly decaying over time. The surge will change from zero to positive to zero to negative and back (one complete cycle) 100,000 times per second.

Without Regal Digital Splitters, surges and transient voltage of this magnitude will magnetize the ferrite core resulting in saturation and intermodulation

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