



# 1 GHz Digital Drop Splitters

**REGAL®**

## application

Regal Digital Drop Splitters are specifically designed for use in any digital application. Blocking capacitors on the F-ports of each Regal Digital Drop Splitter allow us to achieve low intermodulation distortion figures that are essential when providing cable modem service.

## features

- ▣ Nickel plated zinc housing with tongue and groove epoxy sealed back
- ▣ Phosphorous bronze conical seizure mechanisms
- ▣ 1 GHz bandwidth with low loss characteristics
- ▣ Includes 1kV blocking capacitors
- ▣ UL® compliance
- ▣ Port values cast into housing
- ▣ ½" flat sealed F-ports
- ▣ Standard 1" spacing between F-port
- ▣ Printed wiring board
- ▣ Integrated mounting tabs and integral heavy duty grounding block

## benefits

- ▣ Provides superior corrosion resistance, exceptional CLI protection and EMI isolation – minimum 120 dB and durable construction
- ▣ Prevents ferrite core saturation and magnetization
- ▣ Improves return loss and isolation specifications
- ▣ Ensures consistent RF performance and high port isolation
- ▣ Supports present and future multimedia, telephony, RF and digital communications
- ▣ Improves electrical and mechanical contact and provides more secure weather resistant connection
- ▣ 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



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## SPECIFICATIONS

**Intermodulation (spurious signals and 2nd harmonics): -45 dBmV w/+55 dBmV return, after 6kV ring wave surge**

**Surge withstand: 6kV, 200 amp, 100 kHz ring wave – IEEE 587 (C62.41 - 1991) Category A3 standard**

**Horizontal Drop Splitters (High Corrosion Resistant Nickel Plating)**

### 2-Way Horizontal Splitter

**Model # DS2DGH10**

	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	3.5	3.5	3.5	3.8	3.7	3.7	4.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 3-Way Horizontal Splitter

**Model # DS3DGH10**

	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	3.5/7.1	3.5/7.0	3.5/7.0	3.8/7.2	3.8/7.2	4.1/7.9	4.4/8.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 4-Way Horizontal Splitter

**Model # DS4DGH10**

	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	7.2	7.0	7.0	7.5	7.5	7.5	8.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 3-Way Balanced Horizontal Splitter

**Model # DS3BDGH10**

	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	6.0	6.0	6.1	6.5	6.5	6.7	7.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

## ORDERING INFORMATION

### 1 GHz 120 dB EMI Horizontal

ARRIS #	Mfg #	Description	Bandwidth
209661	DS2DGH10	2-Way Horizontal Splitter	1000 MHz
209662	DS3DGH10	3-Way Horizontal Splitter	1000 MHz
701533	DS3BDGH10	3-Way Balanced Horizontal Splitter	1000 MHz
209663	DS4DGH10	4-Way Horizontal Splitter	1000 MHz

All units are 1 GHz, 120 dB EMI, non-powerpassing. DC path is to ground. Specifications subject to change without notice.



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**Surge withstand: 6kV, 200 amp, 100 kHz ring wave – IEEE 587 (C62.41 - 1991) Category A3 standard**

**Vertical Drop Splitters (High Corrosion Resistant Nickel Plating)**

### 2-Way Vertical Splitter

#### Model # DS2DGV10

Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	3.5	3.5	3.5	3.5	3.7	3.7	4.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 3-Way Vertical Splitter

#### Model # DS3DGV10

Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	3.5/7.1	3.5/7.0	3.6/7.2	3.9/7.5	3.9/7.5	4.4/7.9	4.4/8.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 4-Way Vertical Splitter

#### Model # DS4DGV10

Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	7.0	7.0	7.0	7.0	7.5	7.5	8.0
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 8-Way Vertical Splitter

#### Model # DS8BDGV10

Frequency (MHz)	5-15	16-40	41-400	401-500	501-600	601-900	901-1000
Insertion Loss (dB Max.)	10.5	10.5	11.0	11.0	11.5	11.5	11.5
Return Loss (dB Min.)	20	25	20	20	20	20	20
Isolation (dB Min.)	20	35	20	20	20	20	20
EMI Shielding (dB Min.)	120	120	120	120	120	120	120

### 16-Way Vertical Splitter

#### Model # DS16BDGV10

Frequency (MHz)	5-15	16-40	41-400	51-100	101-200	201-300	301-400	401-600	601-700	701-800	801-900	901-1000
Insertion Loss (dB Max.)	14.5	14.5	14.5	14.5	14.5	15	15	15.5	16	16.5	17	18.5
Return Loss (dB Min.)	11	15	16	17	18	18	18	18	18	16	15	15
Isolation (dB Min.)	25	25	25	25	22	20	20	20	20	18	18	18
EMI Shielding (dB Min.)	100	100	100	100	100	100	100	100	100	100	100	100

## ORDERING INFORMATION

### 1 GHz 120 dB EMI Vertical

ARRIS #	Mfg #	Description	Bandwidth
701775	DS2DGV10	2-Way Vertical Splitter	1000 MHz
701776	DS3DGV10	3-Way Vertical Splitter	1000 MHz
701777	DS4DGV10	4-Way Vertical Splitter	1000 MHz
701778	DS8DGV10	8-Way Vertical Splitter	1000 MHz
701779	DS16DGV10	16-Way Vertical Splitter (100 dB EMI)	1000 MHz

All units are 1 GHz, 120 dB EMI (16-way is 100 dB), non-powerpassing. DC path is to ground. Specifications subject to change without notice.



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