



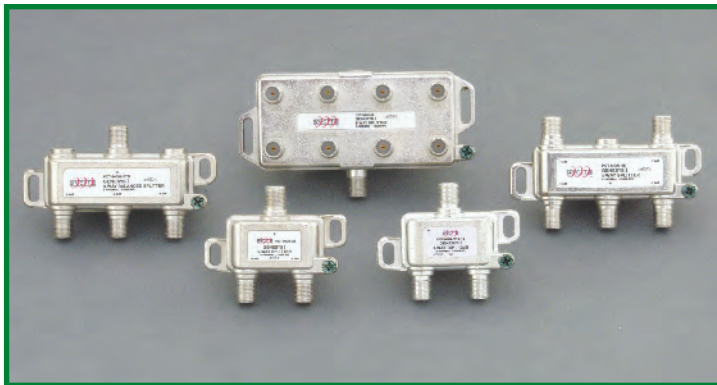
**DROP PASSIVES**

**GENESYS II SERIES**

- Drop Splitters 1
- 1-Way Directional Coupler 4

**GENESYS I SERIES**

- Drop Splitters 5
- 1-Way Directional Coupler 8



## DIGITAL SPLITTERS

PCT's Genesys II drop passives offer exceptional performance and long-term reliability for drop installations, particularly in systems with cable modem applications. Genesys II splitters were specifically designed for minimizing intermodulation distortions and spurious signals. Included with the Genesys II Series is PCT's patented Digital Seizure Mechanism (DSM), which provides significant advantages in center conductor retention, surface contact area, and electrical performance. Splitters are available in horizontal and vertical 2-way, 3-way (balanced and unbalanced), 4-way, and 8-way configurations, with solder-back or tongue-and-groove backplates.



### FEATURES & BENEFITS

- Superior intermodulation distortion and second harmonic performance
- Excellent return loss and port-to-port isolation in the return band
- Patented DSM seizure technology provides increased spring retention for better surface contact (patent #6450836)
  - ▶ Gold-plated, beryllium copper construction for better corrosion resistance, impedance matching, and prevention of common path distortion
- 6 kV surge withstand, guaranteed second order harmonics performance after 5 surges to each port of 6kV (per IEEE.C62.41.1991 Category A3)
- Tin-plated backplate provides minimum -130 dB shielding effectiveness and superior defense against long-term corrosion factors
- -60 dBmV spurious signals and 2nd harmonics with a +55 dBmV input carrier
- Weather-sealed "F" ports
- Machine threaded, flat "F" ports

ORDERING INFORMATION

PART NO.	DESCRIPTION
<b>Horizontal</b>	
PCT-NGNII-2S	Splitter, Drop, Genesys II, 2-Way Horizontal, Solder Back
PCT-NGNII-2T	Splitter, Drop, Genesys II, 2-Way Horizontal, Tongue & Groove
PCT-NGNII-3S	Splitter, Drop, Genesys II, 3-Way Horizontal, Solder Back
PCT-NGNII-3SB	Splitter, Drop, Genesys II, Balanced 3-Way Horizontal, Solder Back
PCT-NGNII-3T	Splitter, Drop, Genesys II, 3-Way Horizontal, Tongue & Groove
PCT-NGNII-3TB	Splitter, Drop, Genesys II, Balanced 3-Way Horizontal, Tongue & Groove
PCT-NGNII-4S	Splitter, Drop, Genesys II, 4-Way Horizontal, Solder Back
PCT-NGNII-4T	Splitter, Drop, Genesys II, 4-Way Horizontal, Tongue & Groove
PCT-NGNII-8S	Splitter, Drop, Genesys II, 8-Way Horizontal, Solder Back
PCT-NGNII-8T	Splitter, Drop, Genesys II, 8-Way Horizontal, Tongue & Groove
PCT-NGNII-IT1S-xx	Tap, Drop, Genesys II, 1-Way (06, 09, 12, 16, 20, 24) dB, Solder Back
PCT-NGNII-IT1T-xx	Tap, Drop, Genesys II, 1-Way (06, 09, 12, 16, 20, 24) dB, Tongue & Groove
<b>Vertical</b>	
PCT-NGNII-2SV	Splitter, Drop, Genesys II, 2-Way Vertical, Solder Back
PCT-NGNII-2TV	Splitter, Drop, Genesys II, 2-Way Vertical, Tongue & Groove
PCT-NGNII-3SV	Splitter, Drop, Genesys II, 3-Way Vertical, Solder Back
PCT-NGNII-3SVB	Splitter, Drop, Genesys II, Balanced 3-Way Vertical, Solder Back
PCT-NGNII-3TV	Splitter, Drop, Genesys II, 3-Way Vertical, Tongue & Groove
PCT-NGNII-3TVB	Splitter, Drop, Genesys II, Balanced 3-Way Vertical, Tongue & Groove
PCT-NGNII-4SV	Splitter, Drop, Genesys II, 4-Way Vertical, Solder Back
PCT-NGNII-4TV	Splitter, Drop, Genesys II, 4-Way Vertical, Tongue & Groove



GENERAL SPECIFICATIONS

Nominal Impedance:	75 Ohms
Flatness (Tap & Out):	±0.5 dB
RFI:	-130 dB
Spurious Signals Including 2nd Harmonics:	-60 dBmV measured with a +55 dBmV return input carrier (-45 dBmV, after 5 surges of 6k V on each port measured with a +55 dBmV return input carrier)
Blocking Capacitors:	All ports
Surge Withstand:	IEEE C62.41-1991 Category A3 (6000 V, 200 Amp, 0.5 μs-100 kHz Ring Wave)
Operating Temperature Rating:	-40 to +60° F (-40 to +140° F)

DIGITAL SPLITTER

SPECIFICATIONS



PCT-NGNII	2-WAY	3-WAY UNBALANCED	3-WAY BALANCED	4-WAY	8-WAY
INSERTION LOSS	TYPICAL	TYPICAL	TYPICAL	TYPICAL	TYPICAL
5 - 15 MHz	3.3	3.4 / 7.0	5.6	7.0	10.7
16 - 42 MHz	3.3	3.4 / 6.9	5.5	6.9	10.5
43 - 65 MHz	3.3	3.4 / 6.9	5.5	6.9	10.5
66 - 250 MHz	3.4	3.4 / 6.9	5.6	6.9	10.6
251 - 450 MHz	3.4	3.5 / 7.0	5.7	6.8	10.6
451 - 550 MHz	3.5	3.5 / 7.0	5.7	6.9	10.6
551 - 750 MHz	3.6	3.6 / 7.2	5.9	7.1	10.8
751 - 860 MHz	3.7	3.6 / 7.3	6.2	7.3	11.2
861 - 1000 MHz	3.8	3.8 / 7.7	6.5	7.5	11.5

OUT-TO-OUT ISOLATION

5 - 15 MHz	35	38	27	33	34
16 - 42 MHz	41	42	37	40	39
43 - 65 MHz	42	44	38	43	39
66 - 250 MHz	38	40	33	38	35
251 - 450 MHz	35	36	28	31	29
451 - 550 MHz	34	34	27	30	28
551 - 750 MHz	33	32	25	29	27
751 - 860 MHz	32	30	25	28	27
861 - 1000 MHz	30	28	24	26	24

INPUT RETURN LOSS

5 - 15 MHz	22	23	25	26	28
16 - 42 MHz	28	28	29	34	31
43 - 65 MHz	30	29	30	37	33
66 - 250 MHz	30	29	30	35	33
251 - 450 MHz	31	29	29	32	28
451 - 550 MHz	31	30	30	30	26
551 - 750 MHz	30	30	25	28	25
751 - 860 MHz	30	30	25	28	26
861 - 1000 MHz	27	27	24	26	25

OUTPUT RETURN LOSS

5 - 15 MHz	24	27	26	30	32
16 - 42 MHz	35	35	34	36	37
43 - 65 MHz	36	35	37	35	38
66 - 250 MHz	35	30	29	34	33
251 - 450 MHz	35	30	25	31	29
451 - 550 MHz	33	30	24	30	26
551 - 750 MHz	30	28	24	28	23
751 - 860 MHz	29	28	24	27	23
861 - 1000 MHz	28	27	24	25	23

Units = dB



**SPECIFICATIONS**

PCT-NGNII-IT1

INSERTION LOSS $\pm 1.5$ dB	TAP VALUE					
	6 TYPICAL	9 TYPICAL	12 TYPICAL	16 TYPICAL	20 TYPICAL	24 TYPICAL
5 - 15 MHz	2.1	1.3	0.7	0.7	0.5	0.5
16 - 42 MHz	1.9	1.3	0.9	0.7	0.5	0.5
43 - 65 MHz	1.9	1.3	0.9	0.7	0.5	0.5
66 - 250 MHz	1.9	1.8	0.9	0.7	0.7	0.7
251 - 450 MHz	2.2	1.8	0.9	0.7	0.7	0.7
451 - 550 MHz	2.2	1.8	0.9	0.7	0.7	0.7
551 - 750 MHz	2.2	2.3	1.5	0.9	0.7	0.7
751 - 860 MHz	2.2	2.3	1.5	1.1	1.1	1.1
861 - 1000 MHz	2.2	2.4	1.5	1.1	1.1	1.1
<b>OUT-TO-OUT ISOLATION</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	38	36	37	36	36	36
43 - 65 MHz	38	36	37	21	21	21
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>INPUT RETURN LOSS</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	27	26	26	26	26	27
43 - 65 MHz	27	26	26	26	26	27
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>OUTPUT RETURN LOSS</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	27	26	26	26	26	27
43 - 65 MHz	27	26	26	26	26	27
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>TAP RETURN LOSS</b>						
5 - 15 MHz	22	21	21	21	21	21
16 - 42 MHz	31	31	31	31	31	31
43 - 65 MHz	31	31	31	31	31	31
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21

Units = dB

## DIGITAL SPLITTERS

PCT's Genesys I drop passives offer exceptional performance and long-term reliability for drop installations, particularly in systems with cable modem applications. Genesys I splitters were specifically designed for minimizing intermodulation distortions and spurious signals. Included with the Genesys I Series is PCT's patented Digital Seizure Mechanism (DSM), which provides significant advantages in center conductor retention, surface contact area, and electrical performance. Splitters are available in horizontal and vertical 2-way, 3-way (balanced and unbalanced), 4-way, and 8-way configurations, with solder-back or tongue-and-groove backplates.

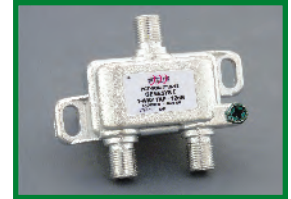


### FEATURES & BENEFITS

- Superior intermodulation distortion and second harmonic performance
- Excellent return loss and port-to-port isolation in the return band
- Patented DSM seizure technology provides increased spring retention for better surface contact (patent #6450836)
  - Gold-plated, beryllium copper construction for better corrosion resistance, impedance matching, and prevention of common path distortion
- 6 kV surge withstand, guaranteed second order harmonics performance after 5 surges to each port of 1 kV (per IEEE.C62.41.1991 Category A3)
- Tin-plated backplate provides minimum -130 dB shielding effectiveness and superior defense against long-term corrosion factors
- -60 dBmV spurious signals and 2nd harmonics with a +55 dBmV input carrier
- Weather-sealed "F" ports
- Machine threaded, flat "F" ports



DIGITAL SPLITTERS



ORDERING INFORMATION

PART NO.	DESCRIPTION
<b>Horizontal</b>	
PCT-NGNII-2S	Splitter, Drop, Genesys II, 2-Way Horizontal, Solder Back
PCT-NGNII-2T	Splitter, Drop, Genesys II, 2-Way Horizontal, Tongue & Groove
PCT-NGNII-3S	Splitter, Drop, Genesys II, 3-Way Horizontal, Solder Back
PCT-NGNII-3SB	Splitter, Drop, Genesys II, Balanced 3-Way Horizontal, Solder Back
PCT-NGNII-3T	Splitter, Drop, Genesys II, 3-Way Horizontal, Tongue & Groove
PCT-NGNII-3TB	Splitter, Drop, Genesys II, Balanced 3-Way Horizontal, Tongue & Groove
PCT-NGNII-4S	Splitter, Drop, Genesys II, 4-Way Horizontal, Solder Back
PCT-NGNII-4T	Splitter, Drop, Genesys II, 4-Way Horizontal, Tongue & Groove
PCT-NGNII-8S	Splitter, Drop, Genesys II, 8-Way Horizontal, Solder Back
PCT-NGNII-8T	Splitter, Drop, Genesys II, 8-Way Horizontal, Tongue & Groove
PCT-NGNII-IT1S-xx	Tap, Drop, Genesys II, 1-Way (06, 09, 12, 16, 20, 24) dB, Solder Back
PCT-NGNII-IT1T-xx	Tap, Drop, Genesys II, 1-Way (06, 09, 12, 16, 20, 24) dB, Tongue & Groove
<b>Vertical</b>	
PCT-NGNII-2SV	Splitter, Drop, Genesys II, 2-Way Vertical, Solder Back
PCT-NGNII-2TV	Splitter, Drop, Genesys II, 2-Way Vertical, Tongue & Groove
PCT-NGNII-3SV	Splitter, Drop, Genesys II, 3-Way Vertical, Solder Back
PCT-NGNII-3SVB	Splitter, Drop, Genesys II, Balanced 3-Way Vertical, Solder Back
PCT-NGNII-3TV	Splitter, Drop, Genesys II, 3-Way Vertical, Tongue & Groove
PCT-NGNII-3TVB	Splitter, Drop, Genesys II, Balanced 3-Way Vertical, Tongue & Groove
PCT-NGNII-4SV	Splitter, Drop, Genesys II, 4-Way Vertical, Solder Back
PCT-NGNII-4TV	Splitter, Drop, Genesys II, 4-Way Vertical, Tongue & Groove

GENERAL SPECIFICATIONS

Nominal Impedance:	75 Ohms
Flatness (Tap & Out):	±0.5 dB
RFI:	-130 dB
Spurious Signals Including 2nd Harmonics:	-60 dBmV measured with a +55 dBmV return input carrier (-45 dBmV, after 5 surges of 1 kV on each port measured with a +55 dBmV return input carrier)
Blocking Capacitors:	All ports
Surge Withstand:	IEEE C62.41-1991 Category A3 (6000 V, 200 Amp, 0.5 μs-100 kHz Ring Wave)
Operating Temperature Rating:	-40 to +60°F (-40 to +140°F)

## DIGITAL SPLITTERS



### SPECIFICATIONS

#### PCT-NGN

INSERTION LOSS	2-WAY TYPICAL	3-WAY UNBALANCED TYPICAL	3-WAY BALANCED TYPICAL	4-WAY TYPICAL	8-WAY TYPICAL
5 - 15 MHz	3.3	3.4 / 7.0	5.6	7.0	10.7
16 - 42 MHz	3.3	3.4 / 6.9	5.5	6.9	10.5
43 - 65 MHz	3.3	3.4 / 6.9	5.5	6.9	10.5
66 - 250 MHz	3.4	3.4 / 6.9	5.6	6.9	10.6
251 - 450 MHz	3.4	3.5 / 7.0	5.7	6.8	10.6
451 - 550 MHz	3.5	3.5 / 7.0	5.7	6.9	10.6
551 - 750 MHz	3.6	3.6 / 7.2	5.9	7.1	10.8
751 - 860 MHz	3.7	3.6 / 7.3	6.2	7.3	11.2
861 - 1000 MHz	3.8	3.8 / 7.7	6.5	7.5	11.5

#### OUT-TO-OUT ISOLATION

5 - 15 MHz	35	38	27	33	34
16 - 42 MHz	41	42	37	40	39
43 - 65 MHz	42	44	38	43	39
66 - 250 MHz	38	40	33	38	35
251 - 450 MHz	35	36	28	31	29
451 - 550 MHz	34	34	27	30	28
551 - 750 MHz	33	32	25	29	27
751 - 860 MHz	32	30	25	28	27
861 - 1000 MHz	30	28	24	26	24

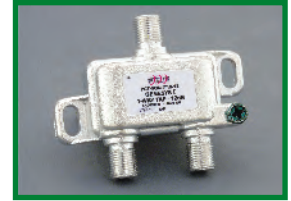
#### INPUT RETURN LOSS

5 - 15 MHz	22	23	25	26	28
16 - 42 MHz	28	28	29	34	31
43 - 65 MHz	30	29	30	37	33
66 - 250 MHz	30	29	30	35	33
251 - 450 MHz	31	29	29	32	28
451 - 550 MHz	31	30	30	30	26
551 - 750 MHz	30	30	25	28	25
751 - 860 MHz	30	30	25	28	26
861 - 1000 MHz	27	27	24	26	25

#### OUTPUT RETURN LOSS

5 - 15 MHz	24	27	26	30	32
16 - 42 MHz	35	35	34	36	37
43 - 65 MHz	36	35	37	35	38
66 - 250 MHz	35	30	29	34	33
251 - 450 MHz	35	30	25	31	29
451 - 550 MHz	33	30	24	30	26
551 - 750 MHz	30	28	24	28	23
751 - 860 MHz	29	28	24	27	23
861 - 1000 MHz	28	27	24	25	23





**SPECIFICATIONS**

PCT-NGN-IT1

INSERTION LOSS $\pm 1.5$ dB	TAP VALUE					
	6 TYPICAL	9 TYPICAL	12 TYPICAL	16 TYPICAL	20 TYPICAL	24 TYPICAL
5 - 15 MHz	2.1	1.3	0.7	0.7	0.5	0.5
16 - 42 MHz	1.9	1.3	0.9	0.7	0.5	0.5
43 - 65 MHz	1.9	1.3	0.9	0.7	0.5	0.5
66 - 250 MHz	1.9	1.8	0.9	0.7	0.7	0.7
251 - 450 MHz	2.2	1.8	0.9	0.7	0.7	0.7
451 - 550 MHz	2.2	1.8	0.9	0.7	0.7	0.7
551 - 750 MHz	2.2	2.3	1.5	0.9	0.7	0.7
751 - 860 MHz	2.2	2.3	1.5	1.1	1.1	1.1
861 - 1000 MHz	2.2	2.4	1.5	1.1	1.1	1.1
<b>OUT-TO-OUT ISOLATION</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	38	36	37	36	36	36
43 - 65 MHz	38	36	37	21	21	21
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>INPUT RETURN LOSS</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	27	26	26	26	26	27
43 - 65 MHz	27	26	26	26	26	27
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>OUTPUT RETURN LOSS</b>						
5 - 15 MHz	21	21	21	21	21	21
16 - 42 MHz	27	26	26	26	26	27
43 - 65 MHz	27	26	26	26	26	27
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21
<b>TAP RETURN LOSS</b>						
5 - 15 MHz	22	21	21	21	21	21
16 - 42 MHz	31	31	31	31	31	31
43 - 65 MHz	31	31	31	31	31	31
66 - 250 MHz	21	21	21	21	21	21
251 - 450 MHz	21	21	21	21	21	21
451 - 550 MHz	21	21	21	21	21	21
551 - 750 MHz	21	21	21	21	21	21
751 - 860 MHz	21	21	21	21	21	21
861 - 1000 MHz	21	21	21	21	21	21

Units = dB