DIGITAL SPLITTERS & TAPS
Genesys Mini and Genesys II
PCT-NGN2M-xx, PCT-NGNII-xx, PCT-NGN2T1S-xx

PCT INTERNATIONAL

Innovation for the Last Mile®

STANDARD FEATURES

PCT's Genesys Mini and Genesys II drop passives offer exceptional performance and long-term reliability for drop installations, particularly in systems with cable modem applications. Genesys Series splitters are specifically designed for minimizing intermodulation distortion and spurious signals. Included with both Genesys Series splitters is PCT's patented Digital Seizure Mechanism (DSM®), providing 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 back plates.

Features and Benefits

- ✓ Superior intermodulation distortion and second harmonic performance
- ✓ Excellent return loss and port-to-port isolation in the return band
- ✓ Patented PCT DSM® seizure technology (patent #6450836)
  - Provides increased spring retention for better surface contact, even after repeated entry, across minimum to maximum center conductor diameters
  - Gold-plated, beryllium copper construction for better corrosion resistance, impedance matching, and prevention of common path distortion
- ✓ 6 kV surge withstand, excellent second order harmonics performance after 10 surges to each port per IEEE C62.41-1991 Category A3
  - -45 dBmV spurious signals and second harmonics with a +55 dBmV input carrier
- ✓ Tin-plated backplate provides minimum -110 dB shielding effectiveness and superior defense against long-term corrosion factors
- ✓ Weather-sealed F ports
- ✓ Machine threaded, flat-faced F ports for improved ground plane contact
- ✓ Conforms to all applicable SCTE standards

DSM® CE

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General Specifications

- ✓ Nominal Impedance — 75 Ohms
- ✓ Flatness (Tap & Out) — ± 0.5 dB
- ✓ RFI — -110 dB
- ✓ Surge Withstand — IEEE C62.41-1991 Category A3 (6000 V, 200 Amp, 0.5 µs-100 kHz Ring Wave)
- ✓ Spurious Signals Including Second Harmonics — -45 dBmV, after 10 surges of A3 6 kV on each port measured with a +55 dBmV return input carrier
- ✓ Blocking Capacitors — All ports
- ✓ Operating Temperature — -40 to +60° C (-40 to +140° F)
- ✓ Regulatory Compliance — CE

Ordering Information

Splitter, Drop, Genesys 2 Mini

Horizontal

- ✓ PCT-NGN2M-2S — 2-Way, Solder Back
- ✓ PCT-NGN2M-3S — 3-Way, Solder Back

Splitter, Drop, Genesys II

Horizontal

- ✓ PCT-NGNII-3SB — 3-Way, Solder Back, Balanced
- ✓ PCT-NGNII-4S — 4-Way, Solder Back
- ✓ PCT-NGNII-8S — 8-Way, Solder Back

Vertical

- ✓ PCT-NGNII-2SV — 2-Way, Solder Back
- ✓ PCT-NGNII-3SV — 3-Way, Solder Back
- ✓ PCT-NGNII-3SBV — 3-Way Vertical, Solder Back, Balanced
- ✓ PCT-NGNII-4SV — 4-Way Vertical, Solder Back
- ✓ PCT-NGNII-8SV — 8-Way Vertical, Solder Back

Tap, Drop, Genesys II Mini

Horizontal

- ✓ PCT-NGN2T1S-xx — 1-Way "T" Style, Solder Back, xx = dB: 06, 09, 12, 16, 20, 24

Specifications — PCT-NGN2M-xx, PCT-NGNII-xx

DIGITAL SPLITTERS	2-Way		3-Way	3-Way balanced	4-Way	8-Way
Parameters	Horiz.	Vert.	Horiz. & Vert.	Horiz. & Vert.	Horiz. & Vert.	Horiz. & Vert.
Insertion Loss				Typical (dB)		
5 to 15 MHz	3.5	3.5	3.5 / 7.2	5.8	7.0	10.7
15 to 42 MHz	3.5	3.5	3.5 / 7.2	5.7	6.9	10.5
42 to 65 MHz	3.5	3.5	3.5 / 7.2	5.7	6.9	10.5
65 to 250 MHz	3.6	3.5	3.5 / 7.2	5.8	6.9	10.6
250 to 450 MHz	3.6	3.5	3.5 / 7.2	5.9	6.9	10.6
450 to 550 MHz	3.6	3.5	3.5 / 7.2	5.9	6.9	10.6
550 to 750 MHz	3.8	3.7	3.7 / 7.9	6.1	7.3	11.1
750 to 860 MHz	3.8	3.7	3.7 / 7.9	6.3	7.3	11.2
860 to 1002 MHz	3.8	3.7	3.7 / 7.9	6.5	7.5	11.5
Out-to-Out Isolation				Typical (dB)		
5 to 15 MHz	24	27	29	25	42	33
15 to 42 MHz	40	42	37	35	44	36
42 to 65 MHz	40	42	37	35	44	36
65 to 250 MHz	28	27	28	30	41	30
250 to 450 MHz	28	27	28	26	35	28
450 to 550 MHz	28	27	28	24	33	28
550 to 750 MHz	28	27	28	22	32	28
750 to 860 MHz	28	27	28	22	31	28
860 to 1002 MHz	25	27	25	22	31	25
Input Return Loss				Typical (dB)		
5 to 15 MHz	22	25	28	25	29	23
15 to 42 MHz	28	29	30	31	34	28
42 to 65 MHz	28	29	28	31	35	28
65 to 250 MHz	24	24	28	27	29	28
250 to 450 MHz	24	24	28	25	28	28
450 to 550 MHz	22	24	28	23	28	26
550 to 750 MHz	22	24	28	22	27	26
750 to 860 MHz	22	24	28	22	27	26
860 to 1002 MHz	22	24	28	21	26	25
Output Return Loss				Typical (dB)		
5 to 15 MHz	22	28	30	23	33	27
15 to 42 MHz	32	38	35	32	36	33
42 to 65 MHz	32	32	35	34	35	32
65 to 250 MHz	24	25	28	25	31	29
250 to 450 MHz	24	25	28	24	31	29
450 to 550 MHz	22	25	28	23	31	29
550 to 750 MHz	22	25	28	22	30	27
750 to 860 MHz	22	25	28	22	29	26
860 to 1002 MHz	22	25	28	21	28	26

DIGITAL TAP	PCT-NGN2T1S-xx					
Parameters	6	9	12	16	20	24
In-Tap Insertion Loss			Typical (dB)			
5 to 550 MHz	6.0	9.0	12.0	16.0	20.0	24.0
550 to 1002 MHz	6.2	9.0	12.0	16.0	20.0	24.0
In-Out Insertion Loss			Typical (dB)			
5 to 15 MHz	2.1	1.4	0.8	0.8	0.6	0.6
15 to 65 MHz	2.5	1.9	1.0	0.8	0.6	0.6
65 to 400 MHz	2.5	1.9	1.0	0.8	0.8	0.8
400 to 600 MHz	2.8	1.8	1.4	1.0	1.0	1.0
600 to 1002 MHz	3.0	2.1	1.7	1.5	1.4	1.2
Out-to-Tap Isolation			Typical (dB)			
5 to 10 MHz	22	22	22	22	22	22
10 to 65 MHz	30	30	30	30	30	30
65 to 870 MHz	22	22	22	22	22	22
870 to 1002 MHz	22	22	22	22	22	22
Input Return Loss			Typical (dB)			
5 to 15 MHz	20	20	20	20	20	20
15 to 40 MHz	22	22	25	25	25	25
40 to 65 MHz	22	22	25	25	25	25
65 to 1002 MHz	20	20	20	20	20	20
Output Return Loss			Typical (dB)			
5 to 15 MHz	20	20	20	20	20	20
15 to 40 MHz	25	25	25	25	25	25
40 to 65 MHz	25	25	25	25	25	25
65 to 1002 MHz	20	20	20	20	20	20
Tap Return Loss			Typical (dB)			
5 to 15 MHz	19	20	20	20	20	20
15 to 40 MHz	27	30	30	30	30	30
40 to 65 MHz	27	30	30	30	30	30
65 to 1002 MHz	20	20	20	20	20	20

DSM® CE

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Call +1.800.306.8948 for more information

2260 W Broadway Rd | Mesa AZ 85202-1898 | USA | pctinternational.com