

DROP AMPLIFIER

Active Return, Passive Return

PCT-MA-B1010-xy, PCT-MA-B1015-xy



Innovation for the Last Mile®



ADVANCED FEATURES

PCT's multimedia drop amplifiers provide low noise amplification of broadband signals for subscriber drop installations.

- ✓ Patented DSM® seizure technology provides:
 - Increased spring retention for better surface contact even after repeated entry across maximum to minimum center conductor diameters
 - Gold-plated, beryllium copper construction for better corrosion resistance, impedance matching, and less common path distortion
- ✓ Available in the following configurations:
 - Forward with passive reverse
 - Combined active forward and reverse
 - 1, 2 and 4 ports, 15 dB version available with active returns
 - 1-port, 10 dB versions available, with both passive and active returns
 - Available with or without a power inserter
- ✓ RoHS compliant
- ✓ F-Port is 60 in-lbs tightening and loosening
- ✓ Lightweight powder coated and weather-sealed housing for superior corrosion protection
- ✓ Local or remote powering

Ordering Information

Active Return

Part Number	Description
PCT-MA-B1010-1A	Drop Amplifier 42 / 54, 10 dB, 1 Port, w/ Active Return
PCT-MA-B1010-1AN	Drop Amplifier 42 / 54, 10 dB, 1 Port, w/ Active Return, No Pwr Ins
PCT-MA-B1015-1A	Drop Amplifier 42 / 54, 15 dB, 1 Port, w/ Active Return
PCT-MA-B1015-1AN	Drop Amplifier 42 / 54, 15 dB, 1 Port, w/ Active Return, No Pwr Ins
PCT-MA-B1015-2A	Drop Amplifier 42 / 54, 11 dB, 2 Port, w/ Active Return
PCT-MA-B1015-2AN	Drop Amplifier 42 / 54, 11 dB, 2 Port, w/ Active Return, No Pwr Ins
PCT-MA-B1015-4A	Drop Amplifier 42 / 54, 7 dB, 4 Port, w/ Active Return
PCT-MA-B1015-4AN	Drop Amplifier 42 / 54, 7 dB, 4 Port, w/ Active Return, No Pwr Ins

Passive Return

Part Number	Description
PCT-MA-B1010-1P	Drop Amplifier 42 / 54, 10 dB, 1 Port
PCT-MA-B1010-1PN	Drop Amplifier 42 / 54, 10 dB, 1 Port, No Pwr Ins

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Specifications

		PCT-MAB-1010-xy		PCT-MAB-1015-xy		
		1P	1A	1A	2A	4A
Parameters	Unit	Details				
Downstream						
Forward Path Frequency Range	MHz	54 to 1002				
Amplification Device	--	RF Amp. IC - GaAs MESFET				
Gain (Typical)	dB	10	10	14	11	7.5
Gain Tolerance	dB	+2 / -1				
Flatness (Peak-to-Valley)	dB	± 0.5	± 0.5	± 0.5	± 0.8	± 0.8
Rated Output Level ¹	dBmv	20	20	25	21.5	18
Return Loss	dB	≥ 18				
Group Delay						
54 to 60 MHz	ns / MHz	< 20 / 3.58				
60 to 66 MHz	ns / MHz	< 7 / 3.58				
66 to 1002 MHz	ns / MHz	< 5 / 3.58				
Noise Figure	dB	2.7 Avg (4.0 max)				
CSO	dBc	≤ -62				
CTB	dBc	≤ -75				
XMOD	dBc	≥ 75				
Hum Modulation	dBc	≤ -75				
Return Path						
Return Path Frequency Range	MHz	5 to 42				
Gaing (Typical) 5 to 15 MHz	dB	-1	10	14	11	7.5
Gain Tolerance	dB	--	+2 / -1	+2 / -1	+2 / -1	+2 / -1
Flatness (Peak-to-Valley)	dB	± 0.5	± 0.5	± 0.5	± 0.8	± 0.8
Rated Output Level ²	dBmB	--	55 @ 2 Channels			
Return Loss	dB	≥ 18				
Group Delay						
5 to 10 MHz	ns / MHz	< 20 / 1				
10 to 36 MHz	ns / MHz	< 5 / 1				
36 to 42 MHz	ns / MHz	< 20 / 1				
Effective Noise Figure (Typical)	dB	--	5.5	5.5	8.7	11.9
DSO	dBc	--	< 68			
DTB	dBc	--	< -62			
XMOD	dBc	--	< -75			
Hum Modulation	dBc	< -75				
General						
Power Consumption	W	< 4.5	< 6.0			
RFI Shielding	dB	≥ 110				
Nominal Impedance	Ohm	75				
Operating Temperature	°F (°C)	-40 to +140 (-40 to +60)				
Surge Withstand on all RF Ports	-	IEEE C62.41-1991 Category B3 Surge Withstand (6 kV, 3 kA, 1.2/50 μs - 8/20 μs Combination Wave); Tested in conformance with ANSI/SCTE 81 2012.				
F-Port Torque	-	60 in-lbs tightening and loosening				
F-Port	-	Conforms to ANSI/SCTE 01 2006, sealed; able to hold 15 PSI; Patented DSM® Seizure Mechanism				
Regulatory Standards	-	RoHS, CE (EN50083-2:2006) compliant				

Notes: **1.** 79 analog channels (54 to 552 MHz) at 10 dBmV/ch +51 digital channels (552 to 1002 MHz) at -6 dBc (total channel power) relative to analog carries. All channel flat. **2.** Channel loading, 45 dBmV input.