

# Home Connect Amplifiers and Taps



## Product Information

HCA-A Line of amplifiers are available in 4 variants and can either be installed alone or in combination with the HCT line of TAPS to integrate amplifier and TAP in a small outline.

The HCT line of TAPS snaps onto the HCA-A Line of amplifiers in order to have an installation of amplifiers, TAPS and outlet without jumper cables and occupying just a small area of the wall.

114F combines an IEC wall outlet with 4 F connector TAPS. It is designed for direct installation on the HCA-A amplifier and eliminates the need for jumper cables, which saves installation time and makes the installation compact and elegant.

The Tap to tap isolations prevents device to device interference and enables MoCA bypass were data transmission can coexist with CATV.

## Ordering Information

The HCA-Ax and HCT-11xF may either be purchased alone or as a part of a bundle with a white cover over the sturdy metal housing to conceal the connectors from view. bundled with a cover were the sturdy metal housing and connectors are discretely concealed behind a white cover.

Item no.	Type no.	Description
46242	HCA-A	Amplifier 87,5-1006MHz 21dB, AGC
46243	HCA-AG	Amplifier 87,5-1006MHz 21dB, AGC, Galvanic isolator
46246	HCA-A65	Amplifier 87,5-1006MHz 21dB, AGC, 5-65MHz 16dB return path
46253	HCA-AG65	Amplifier 87,5-1006MHz 21dB, AGC, Galvanic isolator, 5-65MHz 16dB return path
46244	HCT-114F	13dB TAP 1xIEC and 4xF-connector
46248	HCT-118F	16dB TAP 1xIEC and 8xF-connector
46245	HC-C	White plastics cover



# Home Connect Amplifiers



## Product Information

HCA-A is the first in-home amplifier to feature Automatic Gain Control for in-home amplifiers.

The AGC will minimize the effect of level changes by the service provider and eliminate amplifier maladjustment.

The HCA-AG variant features Double Galvanic isolation to prevent grounding loops and hum modulation, and it protects connected equipment in access network and in-home from ground currents.

## Typical Application

The forward only HCA-Ax amplifiers are designed for DOCSIS 3.1 homes where the modem is located at the demarcation point.

The Return path HCA-Ax65 amplifiers are designed for in-home installations where 5-65MHz return path connection points can be found in multiple outlets throughout the home.

## Data

Parameter		Interface points	HCA-Ax Value	HCA-Ax65 Value	Reference
Forward Gain With total power below AGC threshold	87.5 MHz	IN-OUT	21.5 ±1.5 dB		
	400 MHz		24.5 ±1.5 dB		
	670-1006 MHz		25.5 ±1.5 dB		
Equalization	87.5-1006 MHz		4 dB		
Reverse gain	5-65 MHz	OUT-IN		16±1.5 dB	
Return path compression		OUT-IN		>60 dBc	EN60728, IMA3 at output level 110dBuV
Total input power AGC kick-in threshold		IN	80 dBµV		Note 1
CSO		IN	>60 dB		At 94dBµV 42-1 channel Cenelec
CTB		IN	>60 dB		At 94dBµV 42-1 channel Cenelec
Return loss	87.5-1006MHz	IN, OUT	Category B	-	EN 60728-3
	5-65 MHz		-	Category B	
	87.5-1006 MHz		-	Category B	
Isolation	5-65 MHz	IN-OUT	>30 dB	>25 dB	
	87.5-1800 MHz	OUT-IN	>40 dB	>40 dB	
Noise figure	85-120 MHz	IN-OUT	<6 dB	<6,5 dB	
	120-1006 MHz	IN-OUT	<5.5 dB	<6 dB	
	5-65 MHz	OUT-IN	-	<7 dB	
Double Galvanic isolation		IN	Only G versions		EN 60728-1
Dc-block		OUT	2kV		
Operating voltage/current consumption			12V/260mA	12V/380mA	
Power supply rating Primary / Secondary			240V-0,4A Max / 12V/1A		
DC plug Type			3,5mm Jack		
Power-on LED			Green		
Operating temperature			-25 °C to +55 °C		
Impedance			75 Ω		
Surge protection			4 kV		EN61000-4-5, 1,2/50 µs pulse
ESD			6 kV		
Screening attenuation			Class A		EN 50083-2
Transfer impedance			Class A		EN 50083-2
EMC					EN 50083-3
F-connector		IN, OUT	Female		EN 61169-24
Housing material			Zn alloy		
Plating			Bright tin		
RoHS Compliancy			Yes		
CE Marking			Yes		
WEEE marking			Yes		

Note 1 With 42 channels this corresponds to 64dBµV per analogue channel and 54dBµV per digital channel

Note 2 4 channels 110 dBuV: intermodulation <40dB

# Home Connect TAP



## Product Information

HCT-114F and HCT-118F combines an IEC wall outlet with either 4 or 8 F connector TAPs. It is designed for direct installation on the HCA-Ax amplifiers it eliminates the need for jumper cables, which saves installation time and makes the installation compact, provides Class A screening efficiency and allows for the entire installation to be concealed behind a cover.

The tap to tap isolation prevents from subjecting to any interference and enables MoCA bypass between TAP ports where data transmission can coexist with CATV while the integrated MoCA D-Band point of entry filter prevents MoCA to leak outside the home.

## Data

Parameter	Interface points	HCT-114F Value	HCT-118F Value	Reference	
	5-862 MHz	13.5±1.2 dB	16±1.5 dB		
	862-1006 MHz	13.5±1.8 dB	16.5±1.5 dB		
Isolation	5-10 MHz	> 30 dB	> 25 dB		
	10-240 MHz	> 33 dB	> 28 dB		
	240-470 MHz	> 33-31 dB	-	Linear from 33dB at 240MHz to 31dB at 470MHz	
	470-862 MHz	> 31-27 dB	-	Linear from 31dB at 470MHz to 27dB at 862MHz	
	240-470 MHz	-	> 28-26 dB	Linear from 28dB at 240MHz to 26dB at 470MHz	
	470-862 MHz	-	> 26-22 dB	Linear from 26dB at 470MHz to 22dB at 862MHz	
	862-1006 MHz	> 27 dB	> 22 dB		
	1125-1325 MHz	TAP-TAP	< 38 dB	< 43dB	
	1325-1675 MHz	TAP-TAP	< 40 dB	< 45dB	
	1125-1675 MHz	TAP-IN	> 40 dB	> 12 dB	
Return loss	5-1006MHz	IN, TAP	Grade 2	EN 60728-4	
	1125-1675MHz				
DC-block	All ports	Yes			
Screening attenuation		Class A		EN 50083-2	
Transfer impedance		Class A		EN 50083-2	
F-connector	Tap1...Tap 4	Female		EN 61169-24	
	Tap6...Tap 9	-	Female	EN 61169-24	
F-connector	In	Male		EN 61169-24	
IEC-Connector	Tap 5	Male			
IEC-Dummy-Connector		Female		Mechanical support - No electrical connection	
Housing material		Zn alloy			
Plating		Bright tin			
RoHS Compliancy		Yes			
CE Marking		Yes			
WEEE marking		Yes			