ELPAS

Home Connect Amplifiers and Taps

Product Information

HCA-Ax Line of amplifiers, designed for professional installers, are available in several variants and can either be installed alone or in combination with the HCT line of TAPS to integrate amplifier and TAP in a small physical outline.

The HCT-1IxF line of TAPS, designed for professional installers, 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.

The HCT-1IxF combines an IEC wall outlet with either 4 or 8 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 in-home IPLoC/MoCA bypass.

The HCSx Family, designed for Do-It-Yourself installers, combines Coax outlet with TAP and Amplifier, with or without return path.

Ordering Information

The HCA-Ax and HCT-1IxF family can be purchased separately.

The HCS-x family is factory assembled amplifier and TAP combinations with a white plastics cover which conceals the sturdy metal housing of the amplifter, Tap and connectors.

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 Note*, Note**
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 Note*, Note**
46244	HCT-1I4F	13dB TAP 1xIEC and 4xF-connectors
46248	HCT-1I8F	16dB TAP 1xIEC and 8xF-connectors
46245	HC-C	White plastics cover
46255	HCS-1-4	Amplifier 87,5-1006MHz 7.5dB, AGC, 1xIEC and 4xF-connectors
46256	HCS65-1-4	Amplifier 87,5-1006MHz 7.5dB, AGC, 5-65MHz 2.5dB return path, 1xIEC and 4xF-connectors
46257	HCS-1-8	Amplifier 87,5-1006MHz 5dB, AGC, 1xIEC and 8xF-connectors
46258	HCS65-1-8	Amplifier 87,5-1006MHz 5dB, AGC, 5-65MHz 0dB return path, 1xIEC and 8xF-connectors

Note* : G versions can be made to order, MOQ = 1000 pcs
Note** : Preliminary data

DKT COMEGA

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 misadjustment.

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

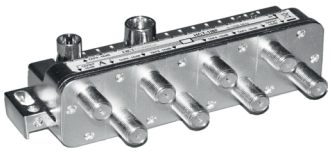
Parameter		Interface points	HCA-Ax Value	HCA-Ax65 Value	Reference
Forward Gain With total power below AGC treshold	87.5 MHz	IN-OUT	21.5 ±1.5 dB		
	400 MHz		24.5 ±1.5 dB		
	670-1006 MHz		25.5 ±1.5 dB		
Equalization	87.5-1006 MHz		4 dB		
Reverse gain	5-65 MHz	OUT-IN	-	16±1.5 dB	
Return path compression		OUT-IN	-	>60 dBc	EN60728, IMA3 at output level 110dBuV Note 2
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				
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/350mA	12V/450mA	
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		
Dimensions excluding connectors & brackets		HxWxD	62x145x34mm		
Dimensions including connectors & brackets		HxWxD	75x163x34mm		

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

DKTCOMEGA

Home Connect TAP



Product Information

HCT-1I4F and HCT-1I8F combines an IEC wall outlet with either 4 or 8 F connector TAPs. It is designed for direct installation on the HCA-Ax amplifiers by professional installers and eliminates the need for jumper cables, which saves installation time and makes the installation compact. The taps provides Class A screening efficiency and allows for the entire installation to be concealed behind a cover.

The tap to tap isolation frequency characeteristics will allow D-Band IPLoC/MoCA devices to communicate between connected outlets while TAP to TAP isolation for TV's remains high. In conbination with the HCA-Ax series of amplifiers the HCT-1IxF taps will provide enough reverse isolation to insure IPLoC/MoCA communication does not leak outside the in-home network.

Data

Parameter		Interface points	HCT-1I4F Value	HCT-1I8F Value	Reference
	5-862 MHz	IN-TAP	13.5±1.2 dB	16±1.5 dB	
	862-1006 MHz		13.5±1.8 dB	16.5±2 dB	
Isolation	5-10 MHz	TAP-TAP	> 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		< 40 dB	< 45dB	
	1125-1675 MHz	TAP-IN	> 40 dB	> 40 dB	
Return loss	5-1006MHz	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		
Dimensions excluding connectors & brackets HxWxD			29x109x17mm	35x114x33mm	
Dimensions including connectors & brackets HxWxD			54x127x35mm	62x131x35mm	

DKTCOMEGA

Home Connect Amplifier Multiport Set

Product Information

Home Connect Amplifier Set combines AGC Amplifier, TAP & outlet with integrated MoCA Point of entry filter under a discrete cover, either with or without return path amplifer. The Amplifier and taps are factory assembled and the entire amplifier and TAP sollution are optimized for ease of installation.

Type			HCS-1-4	HCS65-1-4	HCS-1-8	HCS65-1-8	Reference
Iterm number			46255	46256	46257	46258	
Parameter	Frequency	Port(s)	Value	Value	Value	Value	
Forward Gain With total power below AGC treshold	87.5 MHz	IN-TAP	8 ±2.7 dB		5.5 ±3 dB		
	400 MHz		11 ±3.3 dB		8.5 ±3 dB		
	670-1006 MHz		12 ±3.3 dB		9.5 ±3.5 dB		
Reverse gain	5-65 MHz	TAP-IN	-	2.5±2.7 dB	-	0±3 dB	
Return path compression		TAP-IN	-	>60 dBc	-	>60 dBc	EN60728, IMA3 at outp.=110dBuV Note 2
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	Category B	-	Category B		EN 60728-3
	5-65;87.5-1006 MHz		-	Category B		Category B	
	5-1006,1125-1675MHz	TAP	Grade 2				EN 60728-4
Isolation	10-65 MHz	TAP-TAP	> 38.5 dB		> 28 dB		
	87.5-240 MHz		> 33 dB		> 28 dB		
	240-470 MHz		> 33-30 dB		-		33dB at 240MHz,30dB at 470MHz
	470-862 MHz		> 30-27 dB		-		30dB at 470MHz, 27dB at 862MHz
	240-470 MHz		-		> 28-26 dB		28dB at 240MHz, 26dB at 470MHz
	240-470 MHz		-		> 26-22 dB		26dB at 470MHz, 22dB at 862MHz
	862-1006 MHz		> 27 dB		> 22 dB		
	1125-1325 MHz		< 38 dB		< 43dB		
	1325-1675 MHz		< 40 dB		< 45dB		
	1125-1675 MHz	TAP-IN	> 71 dB		> 71 dB		
	5-65 MHz	IN-OUT	>43.5 dB	>38.5 dB	>46 dB	>41 dB	
	87.5-1800 MHz	OUT-IN	>53 dB		>69 dB		
Noise figure	85-120 MHz	IN-OUT	<6.6 dB	<7,1 dB	<6.7	<7.2	
	120-1006 MHz	IN-OUT	<6.1 dB	<6.6dB	<6.2	<6.7	
Dc-block		OUT	2kV				
Operating voltage/current consumption			12V/350mA	12V/450mA	12V/350mA	12V/450mA	
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. TAP	Female				EN 61169-24
Plating/Housing material			Bright tin plated Zn alloy				
Cover			White ABS				
RoHS Compliancy, CE and WEEE Marking			Yes				
Outer dimension including cover		HxWxD	145x173x35mm				

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

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