



# House amplifiers

## High power amplifiers

- built-in adjustable gain & slope regulators (rotary switch control)
- interstage discrete attenuator and equalizer
- switchable passive or active return path
- input attenuator for active return path
- test points: input - bi-directional, output - directional
- die-cast housing

**HA234R65, HA235R65, HA236R65, HA236R85**  
local powered, with return path 65 MHz and 85 MHz

**HD234R65, HD235R65, HD236R65, HD236R85**  
remote powered, with return path 65 MHz and 85 MHz



### Technical specifications

T Y P E	HA234R65	HA235R65	HA236R65	HA236R85
Ordering number	11503	11504	11501	11502
<b>Forward path</b>				
Frequency range	87-862 MHz	87-1006 MHz	87-1218 MHz	108-1218 MHz
Gain	38 dB			
Gain adjustment, rotary switch	0...15 dB by 1 dB step			
Slope adjustment, rotary switch	0...15 dB by 1 dB step			
Interstage attenuator	-10/-5/0 dB			
Interstage equalizer	-10/-5/0 dB			
Flatness*	±1 dB			
Input and output return loss	≥ 14 dB at 40 MHz; -1.5 dB/oct., but not less 10 dB			
Output level CTB, CSO (EN60728-3)**	105/107 dBμV		105/106 dBμV	
Noise figure, typical	7 dB			
Test points***	-20 dB			
<b>Return path</b>				
Frequency range	5-65 MHz		5-85 MHz	
Gain, switchable	26/-7 dB			
Gain adjustment, rotary switch	0...15 dB by 1 dB step			
Input attenuator	-10/0 dB			
Output equalizer	-6/-3/0 dB			
Flatness	±1 dB		±1.5 dB	
Return loss	> 14 dB			
Noise figure	7 dB			
Output level IMD3=60 dB (EN60728-3)	112 dBμV (active), 119 dBμV (passive)			
<b>General</b>				
Power consumption****	230 V~ 50/60 Hz 7 W			
Operating temperature range	-20° ÷ +50° C			
Dimensions/Weight (packed)	185x91x47 mm/0.7 kg			

- \* measured 10 MHz after the starting frequency of forward path
- \*\* with 0/5 dB interstage equalizer
- \*\*\* input test point is bi-directional and could be used as return path output test point; output test point is directional and could be used for insertion return path signals
- \*\*\*\* models with remote powering 24-65 V~ 50/60 Hz:

Type	Power consumption	Ordering number
HD234R65	7 W	11505
HD235R65	7 W	11506
HD236R65	7 W	11500
HD236R85	7 W	11507

