



# Multichannel headend UHF TV channel amplifiers



- UHF TV channel amplifiers tunable in UHF range
- SAW filters provide a high selectivity processing of digital and analog channels
- integrated LTE signal suppression filter (for at440 only)
- each section has a built-in AGC system and an independent regulator of output level
- built-in indicators and push buttons allow operatively to set required parameters
- DC feeding for preamplifiers through RF input
- DIN rail or wall mounting
- robust die-cast housing
- connectors:  
4xRF - type F  
screw terminal block for DC entry  
power distribution bus

**at420**  
two 8 MHz bandwidth sections  
**at421**  
two 7 MHz bandwidth sections  
**at440**  
four 8 MHz bandwidth sections



### Technical specifications

T Y P E		at420		at421		at440	
<b>Ordering number</b>		02558		02565		02561	
<b>Sections</b>		2		2		4	
<b>Tuning range of channels</b>		470-862 MHz		470-862 MHz		470-790 MHz	
<b>RF input</b>	TV standard <span>pr.</span>	analog (G, K, I, NZ)	DVB-T*	analog (Au/G, K, I, NZ)	DVB-T*	DVB-T*	
	channel bandwidth	8 MHz	8 MHz	7/8 MHz	7 MHz	8 MHz	
	level/impedance	60-85 dB $\mu$ V/75 $\Omega$	50-80 dB $\mu$ V/75 $\Omega$	60-85 dB $\mu$ V/75 $\Omega$	50-80 dB $\mu$ V/75 $\Omega$	50-75 dB $\mu$ V/75 $\Omega$	
	frequency range of RF distribution	47-862 MHz				47-790 MHz	
	loop through gain	0 $\pm$ 1.5 dB					
	return loss	> 12 dB				> 10 dB	
<b>RF output</b>	level/ impedance, typical	90 dB $\mu$ V/75 $\Omega$	85 dB $\mu$ V/75 $\Omega$	90 dB $\mu$ V/75 $\Omega$	85 dB $\mu$ V/75 $\Omega$	82 dB $\mu$ V/75 $\Omega$	
	MER of DVB-T signal	-	$\geq$ 36 dB (input signal MER 38 dB)	-	$\geq$ 36 dB (input signal MER 38 dB)	$\geq$ 36 dB (input signal MER 38 dB)	
	frequency range of RF combining	47-2150 MHz					
	DC pass through	0.3 A					
	combining through loss Terr/SAT	1.5/2.5 dB					
	level adjustment range <span>pr.</span>	0 $\div$ -10 dB by 1 dB step					
	return loss	$\geq$ 10 dB					
<b>Noise figure</b>	7 dB						
<b>Selectivity, typical</b>	40 dB, $\pm$ 1.25 MHz from 8 MHz bandwidth border <span>pr.</span>	40 dB, $\pm$ 2 MHz from 8 MHz bandwidth border	40 dB, $\pm$ 1.25 MHz from 7 MHz bandwidth border <span>pr.</span>	40 dB, $\pm$ 2 MHz from 7 MHz bandwidth border	40 dB, $\pm$ 2 MHz from 8 MHz bandwidth border		
<b>Offset**</b>	$\pm$ 1 MHz by 0.25 MHz step				$\pm$ 1 MHz by 0.125 MHz step		
<b>Spurious signals level</b>	$\leq$ -60 dBc				$\leq$ -55 dBc		
<b>Mirror channel selectivity</b>	$\geq$ 60 dB						
<b>Flatness of channel bandwidth, typical</b>	$\pm$ 1.5 dB						
<b>DC feeding for external</b> <span>pr.</span>	12 V 0.1 A max.						
<b>Current consumption***</b>	12 V 0.45 A				12 V 0.75 A		
<b>Operating temperature range</b>	0 $^{\circ}$ $\div$ +50 $^{\circ}$ C						
<b>Dimensions/Weight (packed)</b>	36x198x107.5 mm/0.9 kg				48.5x198x107.5 mm/1 kg		

pr. software control

\* 21-69 channels for at420 by G standard, 20-75 channels for at421 by Au standard, 21-60 channels for at440 by G standard

\*\* the offset is used for fine tuning of the channel frequency response

\*\*\* without external DC loading