TERRA

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

at420
at421



at440



Technical specifications

TYPE			at420		at421		at440
Ordering number			02558		02565		02561
Sections			2				4
Tuning range of channels			470-862 MHz				470-790 MHz
RF input	TV standard	pr.	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 dBµV/75 Ω	50-80 dBµV/75 Ω	60-85 dBµV/75 Ω	50-80 dBµV/75 Ω	50-75 dBµV/75 Ω
	frequency range of RF distribution		47-862 MHz				47-790 MHz
	loop through gain		0 ± 1.5 dB				
	return loss		>12 dB				>10 dB
RF output	level/ impedance, typical		90 dBµV/75 Ω	85 dBµV/75 Ω	90 dBµV/75 Ω	85 dBµV/75 Ω	82 dBµV/75 Ω
	MER of DVB-T signal		-	≥ 36 dB (input signal MER 38 dB)	-	≥ 36 dB (input signal MER 38 dB)	≥ 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	pr.	0 ÷ -10 dB by 1 dB step				
	return loss		≥10 dB				
Noise figure			7 dB				
Selectivity, typical			40 dB, ±1.25 MHz from 8 MHz bandwidth border	pr. 40 dB, ±2 MHz from 8 MHz bandwidth border	40 dB, ±1.25 MHz from 7 MHz bandwidth border	pr. 40 dB, ±2 MHz from 7 MHz bandwidth border	40 dB, ±2 MHz from 8 MHz bandwidth border
Offset**			±1 MHz by 0.25 MHz step				±1 MHz by 0.125 MHz step
Spurious signals level			≤ -60 dBc				≤ -55 dBc
Mirror channel selectivity			≥ 60 dB				
Flatness of channel bandwidth, typical			± 1.5 dB				
DC feeding for external		pr.	12 V 0.1 A max.				
Current consumption***			12 V 0.45 A				12 V 0.75 A
Operating temperature range			0°÷ +50°C				
Dimensions/Weight (packed)			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